

James A. Athanasou
Harsha N. Perera *Editors*

International Handbook of Career Guidance

Second Edition

 Springer

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*To Raoul and Josee van Esbroeck –
international colleagues*

Preface to the First Edition

The *International Handbook of Career Guidance* represents a project of international professional cooperation. It is intended as a catalyst for reform and was designed to support the development of career guidance in the years to come. Working for over 4 years from Belgium and Australia we had the privilege to collaborate with over 50 colleagues throughout the world to produce this Handbook. In every instance we selected key researchers who have an established reputation in the field of career development. They agreed to be involved and we are grateful for their support in this major effort.

In this handbook we have tried to bring together a collection that summarises the diverse aspects of career guidance. It is a synthesis of the domain of career and vocational guidance firstly for an international readership and secondly it is designed to act as a reference for academics, researchers and professionals in the expanding field of career development. For this reason the Handbook includes coverage of the background and history of guidance right through to poignant issues relating to careers in the modern world of work. Policy issues relating to the provision of careers services as well as professional issues relating to career education, career counselling, career assessment, program evaluation and research methodologies are covered.

The reader will find that many different viewpoints are represented. This is deliberate. The Handbook intends to present to readers some of the career guidance “homes”, as it was called by Savickas and Baker in their chapter on “The history of vocational psychology” in the 2005 third edition of the Walsh and Savickas *Handbook of Vocational Psychology*. No attempt has been made to impose a uniform viewpoint, or a particular ideology or theoretical perspective on the reader. Rather, we have preferred the option of allowing each author to speak with their own voice and from their own experience. Accordingly the various chapters complement each other. They provide a holistic view of career guidance as a discipline that is worthy of research and as a field that has both practical and theoretical applications. It is up to the reader to critique and evaluate each contribution on its own merits and then to consider its relevance for their particular situation or context.

The original idea to create an International Handbook originated at the 2001 IAIEVG in Vancouver, Canada, at the moment of the presentation of the first issue of the *International Journal for Educational and Vocational Guidance*. Several international colleagues agreed on the need at that moment, but no action was taken. Unfortunately it took several years before the real work began. Concrete action to realise this handbook started in mid-2003 and progressed still further following a meeting of the International Association for Educational and Vocational Guidance in New Zealand. Agreement was reached in 2004 and the first contributors were contacted in the second half of the year. Three years, some 1000 pages and 1300 e-mails later, the Handbook has emerged.

Our underlying aim was to provide a reference that reflected international work in guidance. This edition represents a small step and from the outset it was our stated hope that it would be updated at regular intervals. We are conscious that educational and vocational guidance in all the continents has not been adequately represented and we look forward to the day when there will be a wider international representation of cultural views, so that career guidance is not seen as a purely Western phenomenon.

One by-product of the Handbook has been to reinforce the view that career guidance is certainly a coherent and structured professional field. There is a body of knowledge and expertise that pertains to educational and vocational guidance. It is vast and wide-ranging.

Another by-product for the editors has been an acquaintance with some fine colleagues. Whatever may be said about this field, one thing is true; and that is the fact that people who work and research in this field are by-and-large exceptional individuals. They sacrifice their time and effort to advance knowledge for the benefit of society (and of course their own careers). They blend intellectual curiosity with some altruistic quality. We may not agree on theoretical issues but we certainly agree that we like each other as individuals. This is not a bad starting point for a world that is riddled with wars, oppression and tensions. The field of guidance is international and we thought it deserved an international handbook.

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Raoul Van Esbroeck

James Athanasou

Preface to the Second Edition

In the second edition of this *International Handbook of Career Guidance*, we have attempted to continue a tradition of international collaboration. Naturally, we are grateful to Springer for their faith in continuing this series. To a large part, this reflects the success of the first edition, which had some 116,726 chapter downloads for the e-book and was in the top 25% most downloaded e-books for the publisher in 2017. This achievement is a tribute to the many contributors and their reputation in the field.

Regrettably, Raoul van Esbroeck was not able to continue as a coeditor of the second edition. His experience is sorely missed, and I have taken the liberty of dedicating this volume to him. My colleague Prof. Harsha Perera from the University of Nevada has agreed kindly to take his place, with a view to becoming a successor in the editorship of future editions of this handbook.

The emphasis again is on the diverse aspects of career guidance, and for those who may recall a section in the former *Vocational Guidance Quarterly*, it is a salmagundi of career and vocational guidance topics. Much has changed since those early days when the sole task was the appraising of vocational fitness. The field then broadened to concepts of career incorporating a greater emphasis on counseling. Career guidance has now encompassed specialized topics, such as unemployment, decent work, refugees, children, O*NET, or retirement, to name but a few areas. A researcher from the 1970s or even later would barely recognize today's field, let alone feel comfortable in any discussions. Moreover, the pace of change has quickened even within the short time span of some 10 years since the first edition. New theories have come on stage and other ideas exited – some more gracefully than others.

Once more, it has been important that many different viewpoints are represented. This is deliberate. Again, no attempt has been made to impose a uniform viewpoint or a particular ideology or theoretical perspective on the reader.

It would be remiss of me as a departing editor, however, not to comment that although the study of career guidance has progressed in leaps and bounds, the theoretical foundation needs to be coherent and structured. As a discipline, career

guidance poses considerable challenges, and this *handbook* is but a small contribution to its theory and practice.

The task of this handbook is to serve as a guide and introduction. I am conscious that there are still limitations in international coverage as well as intellectual breadth. Nevertheless, it has been a great privilege to act as a coeditor for these 38 contributions. The content actually complements that of the first edition, and both should be read in conjunction.

I am now looking forward to my second academic retirement, and it is with great pleasure that I hand over the reins to a younger and far more competent researcher, Harsha Perera. Few would be more qualified to carry on this task. I wish him every academic success and look forward to future editions under his leadership. To the many contributors and international colleagues, one extends heartfelt thanks and appreciation for all their efforts – it has been a considerable privilege and honor to work with such fine scholars.

Sydney, Australia
October 2018

James Athanasou

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Chapter 1

Introduction: An International Handbook of Career Guidance



Harsha N. Perera  and James A. Athanasou 

Abstract Career guidance operates within a tradition of concern for the welfare of the individual and a respect for the dignity of each person. It eschews a haphazard or serendipitous approach to career choice for one that is more coherent and structured. The aim is to maximise the vocational potential of each person for themselves and the world-at-large. Over time, career guidance has evolved not only as a field of professional activity but also as a major area of academic research that focuses upon one's vocational adaptation to life. This second edition of the *International Handbook of Career Guidance* is addressed principally to researchers in that discipline and reflects not only developments in career theories or guidance practices but also methodological approaches. This chapter sets out some broad influences on career guidance in terms of individuals, the society at large, occupation, and changes occurring in the world. The aim of this Handbook is to provide an up-to-date overview of the field of career guidance on the world stage. The argument is advanced that the fundamental intention of career guidance is to ensure that the individual maximizes lifelong career satisfaction. With this as a founding tenet, it considers prominent contemporary issues that confront career guidance services and practitioners, including the presence of the informal labour markets and changing formal workplaces, accelerating digital transformation and automation of processes, and the need to accommodate the work-based experiences of people on the margins. It is argued that there is scope for professional guidance in this changing, complex, and competitive labour market.

Keywords Vocational guidance · Career guidance · Employment · Theoretical foundations · Career guidance in practice

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Figure 1.1 sets out schematically some broad influences on career guidance in terms of individuals, the society at large, occupation, and changes occurring in the world. At the most basic level, our sustainability is being challenged environmentally (Western 2001). For instance, excessive human consumption has threatened the ecological balance of our existence. Secondly the last decade has witnessed substantial technological developments, such as rapid digitisation of life (e.g., mobile phones) that have profound influences for almost every aspect of working (Hirschi 2018; World Economic Forum 2016). Once familiar occupations (e.g., typist, train driver) or methods of work (e.g., building and construction) are fast changing (Frey and Osborne 2017). Even the office is depersonalised with newer patterns of work, open planning, or hot-desking. Thirdly, the world is encountering ongoing global financial crises with severe social, political as well as economic ramifications (Carruthers 2018). Consequently, it is not surprising that the labour market reflects such developments.

It is evident in the changing distribution between full-time and part-time employment, the rate of unemployment, the level of underutilisation of labour or the patterns of workforce participation throughout the life span. Large-scale redundancies

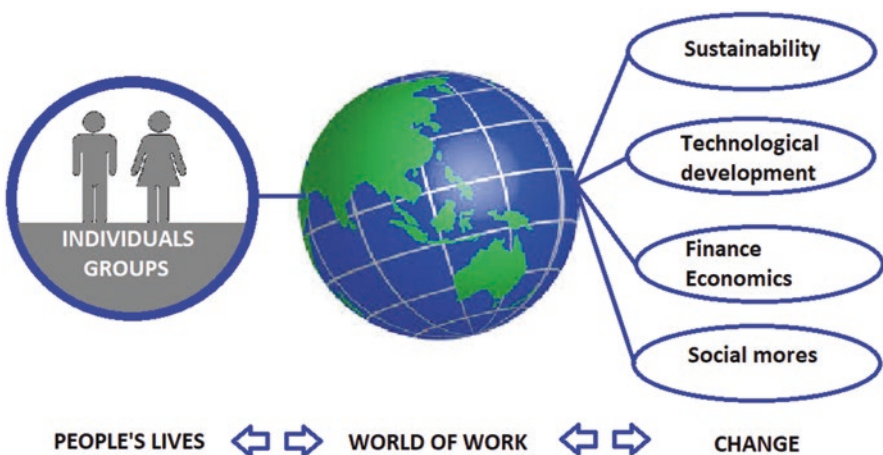


Fig. 1.1 A holistic context within which career guidance operates

and retrenchments are a familiar feature of the modern landscape. This has a profound impact upon the lives of individuals and families. International calls for standards of decent work have not gone unheeded and no theory of careers nor worthwhile approach to guidance can now operate in oblivion to such changes (Blustein et al. 2019).

Yet, throughout these social, political, and economic developments, there is still the abiding problem of finding ways to assist people with career choice. This can be a young person musing about his/her choice of high school subjects; it can be a matriculant selecting a tertiary course or place of study; it can be a worker facing retrenchment or redundancy; it can include assistance to an unemployed person with job-seeking; it can be someone encountering a personal crisis of meaning in life and work; or it could be someone who is a refugee or a person with a disability and so on—the list is endless. On top of the existential problems facing each individual, there are systemic factors (sex, age, religion, ethnicity, race, nationality, geography, disability) that influence choice. These factors are moderated by a host of other factors such as economic, social and even geopolitical factors in the case of refugees. Added to this cocktail of influences are myriad personal attributes in the form of values, interests, aptitudes, and adaptability. Vocational guidance is a broad church.

Given the problems faced by individuals, there has always been a need for expert assistance. Firstly, one has to navigate a vast array of occupations that acts as the backdrop for career guidance. It is unrealistic to expect a layperson to have such a detailed knowledge of occupations. Secondly, there is limited familiarity with the available training or educational pathways. Added to this is restricted awareness of accessible social services (e.g., welfare benefits, compensation) or professional support (e.g., job-seeking assistance, employment counselling, supported placement). These needs became evident in the transition of large working populations to cities and was highlighted more than a century ago. Focused initially on youth, vocational guidance has cast its net far wider today (Savickas 2018).

The purpose of this Handbook is to provide an up-to-date overview of the field of career guidance on the world stage. It is not a remarkable observation that the title brings together four key terms—“international”, “handbook”, “career” and “guidance”. There will always be varying views about such terms but a useful anchor is the official dictionary meaning. The term “international” has two aspects in relation to career guidance, namely that its conduct occurs (a) between nations and it also (b) pertains to every nation (Delbridge et al. 1987, p. 919). The term “handbook” is a familiar term that originated from “a small book or treatise serving for guidance, as in an occupation or study” (Delbridge et al. p. 798). As such, it embodies knowledge, skills and aptitudes that relate to the field of career guidance. A career refers to the vocational course of one’s life. So, in essence, this Handbook is a guide for those giving guidance. The term “career” now has a fairly uniform meaning in that it relates to the life-span and the “general course of action or progress of a person through life, as in some profession...” (Delbridge et al. p. 274). Finally, the official definition of “guidance” might not sit as easily with some researchers in that its definition is limited to “advice, instruction”; it does mention leadership and direction but does not really emphasise counselling or non-directive approaches. Guidance

utilises a range of skills from fields as diverse as personal counselling, occupational information provision, psychological testing, coaching, mentoring or placement.

Notwithstanding that official formal definitions might not sit easily with extant theorising, there is considerable advantage in adopting a standard language and anchoring perceptions in a generally accepted terminology. Be that as it may, these definitions can now clarify succinctly the broad scope and purpose of an international handbook of career guidance. Accordingly, the handbook outlines diverse personal, social, educational or vocational aspects relating mainly, but not exclusively to work, occupations or jobs. As is well-known, career guidance evolved as a process of assisting individuals (or groups) with all aspects of vocational choice, career development, or job-seeking. This is the tradition of vocational guidance from which this handbook emerged. The next section outlines the components of the major parts of the Handbook.

Part I: Theoretical Foundations

Part I of the Handbook contains eight chapters. Together, these chapters provide an overview of the history of career guidance (*A history of career counselling*) and lay the theoretical foundations of the field. This part covers general theoretical and meta-theoretical frameworks for organising, integrating, and understanding career theories, including chapters covering (a) the three major classes of career theories (*Major career theories: International and developmental perspectives*), (b) the influence of social constructionism and constructivism in career theory (*Career theory for change: The influences of social constructionism and constructivism, and convergence*), and (c) the Systems Theory Framework (*The Systems Theory Framework: A systems map for career theory, research and practice*). Part I also comprises chapters covering more specific career perspectives, including decision-making models for career guidance (*Decision-making models and career guidance*), the Social Cognitive Career Theory (*A social cognitive view of career development and guidance*), The Psychology of Working Theory (*The Psychology of Working: Framework and theory*), and perspectives on career callings (*Career callings and career development*).

The chapter on the history of career counselling (*A history of career counselling*), written by Mark L. Savickas and Suzanne Savickas, provides an overview of the ways in which the counselling profession has responded to social transitions in developing models and methods for fostering people's educational and career decision-making in four economic eras. From methods of mentoring based on pedagogical models in the agricultural economy to developmental methods based on lifespan perspectives in the so-called corporate economy, the guidance profession has adapted its models and methods to help clients adapt to differential challenges. Now, in the Global economy, characterised by rapid and intensifying social changes precipitated by globalisation and information technology in both developed and developing countries, Savickas and Savickas argue that the guidance profession is

again reinventing models and methods as reflected in the Life Design paradigm and the concomitant method of self-construction. Importantly, Savickas and Savickas note the salience of the international context in writing that preferences for models and methods for guidance hinge on the economic context, which may differ across national contexts.

The chapter by Cindy L. Juntunen, Thomas C. Motl, and Matthew Rozzi (*Major career theories: International and developmental perspectives*) overviews international and developmental career guidance issues from the perspectives of three major categories of theoretical models. These include person-environment fit theories (i.e., Holland's theory of occupational choice, Theory of Work Adjustment, and Values-based Career Theory), developmental and self-concept theories (i.e., Life-span life-space approach, career constructions, and life design), and theories of career decision-making and social learning theories (i.e., Career Decision-Making Self-Efficacy, Social Cognitive Career Theory, and Happenstance Learning Theory). Across these major theoretical categories, the authors overview the historical contexts, origins, and basic tenets. Importantly, in this discussion, the authors acknowledge that these theories were initially developed in the United States and shaped by concomitant cultural norms, and point to the importance of considering the cultural, socio-economic, and political contexts of the countries in which career guidance issues are investigated using these perspectives. In this regard, the authors highlight international applications of vocational theory in their overview of research and theoretical development predicated on these general perspectives, which serves to affirm the global relevance of these frameworks.

Wendy Patton, in her chapter (*Career theory for change: The influences of social constructionism and constructivism, and convergence*), addresses the issues of the need for convergence of career theories and the related need to integrate theories from cognate disciplines into the career guidance field. Patton also discusses recent developments in career theory influenced by constructivism and social constructionism and their roles in moving towards the goal of integration and convergence in career theories. The chapter begins with a brief overview of the history of career theories. Here, Patton acknowledges that changes in the context of career development, and the broadening of its remit, have outpaced theoretical development in the area, necessitating greater convergence in career theory for a more holistic understanding of career development. Patton highlights the needs for a shift in the philosophical underpinning of career theory to accommodate the complexity of career development, and, in this context, describes the core tenets of constructivism and social constructionism. Patton then reviews six theoretical formulations that serve as bridging frameworks in the service of convergence and highlights the influences of constructivism and social constructionism in these frameworks. These include Contextual Action Theory, Career Construction Theory (Savickas 2005, 2013), the Systems Theory Framework, the Chaos Theory of Careers (Bright and Pryor 2005; Pryor and Bright 2003, 2011), the psychology of working framework and theory, and Systems Theory of Vocational Behaviour and Development. The chapter highlights the important influences of constructivism and social constructionism on the integration of career theories.

The chapter by Mary McMahon and Wendy Patton (*The Systems theory framework: A systems map for career theory, research and practice*) centres on the Systems Theory Framework (STF) of career development, specifically, as a meta-theoretical framework useful for career theory, research, and practice. The chapter first provides an overview of the rationale for the development, origins, and central conceptual underpinnings and tenets of the STF. McMahon and Patton then overview theoretical applications of the STF, demonstrating the unifying function of the framework in fostering theoretical integration. The authors also overview applications of the STF to career practice, including career counselling, career assessment, and career education. McMahon and Patton extend this discussion to the utility of the STF for career research conceptually and methodologically.

The Chapter by Itamar Gati, Nimrod Levin, and Shiri Landman-Tal (*Decision-making models and career guidance*) overviews decision-theory perspectives for understanding the career-decision-making process in career guidance and counselling. The authors do so in the context of the increased complexity in career decision making processes precipitated by changes in the twenty-first century world of work characterised by multi-decisional and unpredictable pathways. The chapter is written in five sections. In the first section, the authors discuss the unique characteristics of career decision making. The second section centres on describing three major types of decision-making models, namely normative models, descriptive models, and prescriptive decision models. In addition, the authors discuss the advantages and disadvantages of each type. In the third section, the authors briefly consider the prescriptive decision-making models as a way to facilitate career-decision-making. The fourth section extends this discussion by demonstrating the utility of the PIC model, involving prescreening, in-depth exploration, and choice, for fostering career decision-making. The final section addresses the criticism that decision-making models are “too-cognitive”. The authors discuss how so-called “non-cognitive” dimensions can be integrated into decision-making models.

In the chapter *A social cognitive view of career development and guidance*, Steven D. Brown and Robert W. Lent provide an overview of the Social Cognitive Career Theory (SCCT) and its implications for career guidance across the lifespan. The authors first review the core theoretical constructs, emerging from Bandura’s (1997) social cognitive theory, that are common to all five SCCT models proposed. These include self-efficacy, outcome expectations, goals, and personal and contextual variables (e.g., ability, gender, race). The authors subsequently proceed to provide a detailed elaboration of the central tenets of, and empirical evidence for, the five SCCT models that variously centre on how people (a) develop academic and career interests, (b) make educational and career choices, (c) attain optimal levels of performance in school and at work, (d) experience school and work satisfaction, and (e) manage their education and career development. Importantly, the authors note the relevance of the models for diverse populations. Finally, the authors consider applications of the SCCT models for career guidance.

The Psychology of Working Framework (PWF) and Psychology of Working Theory (PWT) are reviewed in the chapter by Kelsey L. Autin and Ryan D. Duffy (*The psychology of working: Framework and theory*). This is an important addition

to the second edition of this Handbook, which responds to calls for greater scholarly focus on (a) contextual and structural factors (e.g., social class, privilege) in career development and (b) the work experiences of people on the “lower rungs of the social position ladder” (Duffy et al. 2016, p. 127). The authors first discuss the necessity of the PWF in understanding work experiences of people with limited volition in a rapidly changing economic landscape. In this first section, they also review seven assumptions inherent in the PWF about working and the role of work in individuals’ lives and the broader social fabric of society. They subsequently elaborate the theoretical underpinnings of the PWT, explicating the centrality of decent work in the PWT, and they review empirical findings supporting the central tenets of the perspective. The authors conclude the chapter by discussing practice and policy implications of the PWT and future directions for PWT research.

The chapter by Bryan J. Dik, Kaitlyn Reed, Adelyn B. Shimizu, Dylan R. Marsh, and Jessica L. Morse on *Career callings and career development* reviews recent theoretical and empirical work on calling. In particular, the authors highlight important differences in the conceptualisations of callings and their diverse operationalizations that have emerged in the scientific literature. Following from this, the authors review the breadth of research on the relations of calling with career development attitudes and general well-being. The authors then review a novel theoretical framework, called Work as Calling, developed on the basis of extant calling research, which is designed to explain the links among a perceived calling, living a calling, and work outcomes. Finally, the authors consider directions for future research on calling, with specific attention given to possibilities centred on antecedents of calling, the multidimensionality of calling, the role of culture, and a dark side of calling. They also consider implications of the construct for career counseling and organisational practice.

Part II: Career Guidance in Practice

Part II of the Handbook contains 12 chapters that have as their focus career guidance in practical contexts, including consideration of research and perspectives in educational and vocational guidance with specific targeted groups. This part of the Handbook covers classical topics, such as career success and employability, including the role of engaging in challenging work activities in promoting success and employability (*Career success: Employability and the quality of work experiences*), as well as paradigms for career intervention, including the life and career design framework for career construction (*Life design dialogues for self’s construction* and *Life design and people with experience of substance abuse*). Recent perspectives on career and life management are also covered; specifically, a chapter is included that covers a positive prevention perspective on career management that provides a framework for focusing on strengthening resources relevant to career management in the twenty-first century through early intervention (*From career development to career management: A positive prevention perspective*). This part of the Handbook

also covers the career development of children (*Back to the future: Child career development*) and adolescents (*Career preparedness in adolescents: An overview of empirical research and suggestions for practice*), including those with disabilities (*Career guidance for children and youth with disabilities*), as well as the career development of gifted students (*The career development of gifted students*) and late career development (*Late career development and retirement*). In addition, chapters covering the career development of specific marginalised groups are included. These include the career development of (a) refugees in the context of the global refugee crisis (*Career development of refugees*) and (b) girls and women in the context of historical and contemporary gender inequality worldwide (*Guidance for girls and women*). Finally, a chapter overviewing the recently developed Vocational Psychology of Agriculture (*Vocational psychology of agriculture: Fiat panis*), which represents an extension of the Psychology and Working into the domain of agriculture, is included.

The chapter by Annamaria Di Fabio (*From career development to career management: A positive prevention perspective*) presents a positive prevention perspective on career and life management. In the chapter introduction, the author notes the important context in which this positive prevention perspective is advanced; that is, the workplace is increasingly characterized by changes with frequent work transitions, where individuals may experience instability and insecurity. It is in this context that the author argues there is a shift from career development to career and life management. The chapter first overviews twentieth century theories relevant to career development; subsequently, career theories for the twenty-first century are overviewed, foregrounding the perspective of career and life management. In particular, the author provides an overview of Career Construction Theory, Self-Construction and Life-Construction Theory, Psychology of Working, and the Relational Theory of Working. Next, the author summarizes a positive prevention perspective on career and life management, noting its basis in positive psychology and in a prevention framework. Drawing from this positive prevention perspective and the overview of career theories, the author advances a new positive framework for career and life management. The author explicates two axes of reflection relevant to this framework, namely Purposeful Identitarian Awareness and the Positive Self and Relational Management Model. The Positive Self and Relational Management Model foregrounds the role and value of the development of strengths and the importance of relational adaptation in the management of the complexity of personal and professional transitions. Following from this, the author provides a review of literature on positive career outcomes and their predictors (e.g., emotional intelligence) from a general positive prevention perspective. Finally, the author describes positive preventive resources that may be particularly useful for career self-management in the twenty-first century (e.g., entrepreneurial self-capital, positive relational management).

The chapter by Annelies E. M. Van Vianen, Irene E. De Pater, and Paul T. Y. Preenen (*Career Success: Employability and the quality of work experiences*) examines the role of engaging in challenging work activities in promoting career success and employability. The chapter is positioned in the context of changing labour mar-

kets and career unpredictability, which necessitates the development of human capital to promote people's employability. The authors begin the chapter by reviewing the concept of employability and note their focus on the human capital aspect of employability, namely the training and skill development required for keeping pace with changes at work and experiencing career success. The next section of the chapter addresses the issue of what constitutes career success. The authors overview a 2 (interpersonal vs. intrapersonal) \times 2 (achievement vs. affect) taxonomy of career success, and note that an intra-personal orientation, including a focus on self-development and the fulfillment of employment needs, may promote the development of employability. Following from this, the authors discuss human capital and the development of human capital. The authors argue that one of way of developing human capital is through challenging work experiences in the service of promoting people's employability. They note that routine skills and training development are inadequate to develop employability. Instead, in this climate of increasingly unpredictable work environments, individuals need to engage in a breadth of challenging activities that develop new skills that are applicable across work activities and roles. The authors review research showing that intrinsically motivated people, who are mastery oriented, self-efficacious, and proactive are more likely to participate in challenging tasks than those who are extrinsically motivated, performance-oriented, inefficacious, and passive. Aside from these intraindividual factors that promote engaging in challenging experiences, the authors note that the challenging nature of jobs depends on factors in the work environment, including the task-allocating behaviours of colleagues and supervisors. The authors conclude with a discussion of the role that individuals (e.g., supervisors) play in enhancing employees' employability and career success via challenging tasks.

In their chapter (*Life design dialogues for self's construction*), Jean Guichard and Jacques Pouyaud overview the life and career design dialogue (LCDD) as a method of counselling interview for self-construction. The authors position that method as one of various counselling interventions that have been developed to help individuals find meaning in their lives. The chapter first presents the theoretical basis of the LCDD method. The authors note that the method draws on processes of construction of the self that integrates contributions from (a) sociology (e.g., identity offer, social category, social fields, and habitus) and (b) cognitive psychology (e.g., cognitive frame, script for action, self-schema). From this integrative self-construction model, self-construction is posited to be a system of past, present, and expected subjective identity forms, which are developed and redeveloped through the tension between two types of reflexivity, namely dual reflexivity and trine reflexivity. The authors, then, outline a case study illustrating how the activation of trine reflectivity during a LCDD allow the client to construct two expected subjective identity forms that comprised a future perspective, which gave meaning to the client's life and allowed him to better cope with a career transition.

The chapter by Mark Watson and Mary McMahon (*Back to the future: Child career development*) centres on the need to revisit the childhood career life-stage within the broader perspective of career development as a lifelong developmental process. The authors note the limited scholarly attention that child career develop-

ment has received relative to the career development of adolescents and adults. The authors first consider the basis of childhood career development theories in broader child development theories. The authors then overview two prominent theories of career development in childhood, namely Super's lifespan-lifespace theory and Gottfredson's circumscription and compromise theory. Following from this, the authors consider emerging theories of child career development, including Howard and Walsh's Conceptions of Career Choice and Attainment model that describes three approaches to children's reasoning, and Savickas's Career Construction Theory, which places a greater emphasis, relative to traditional theories, on contextual influences on career development in childhood. The authors subsequently provide a critical overview of research on child career development, drawing on seven existing reviews or analyses of this body of work over the past 12 years. From this overview, the authors note several important limitations of child career development research, such as the absence of cohesion in the limited work that has been done and a predominant focus on intra-individual influences at the expense of contextual factors. The chapter concludes with a discussion of how career development interventions can foster career development learning in children.

The chapter by Rebekka S. Steiner, Julian Marciniak, Claire S. Johnston, and Andreas Hirschi (*Career preparedness in adolescents: An overview of empirical research and suggestions for practice*) overviews theoretical and empirical research on career preparedness among adolescents. Notably, the authors recognize that no single theoretical framework of career preparedness exists; instead, a number of distinct theoretical frameworks can be used to understand adolescent career preparation. In the first section of the chapter, the authors provide an overview of these theoretical frameworks. Drawing from this overview, the authors note that career preparedness can be conceptualised as a multidimensional construct that comprises several facets from existing theories, spanning attitudes, knowledge, competencies, and behaviours. The authors then review recent research on predictors, including personal and environmental factors, and outcomes (e.g., career and academic outcomes, well-being) of career preparedness. Finally, the authors draw on their theoretical overview and review of empirical work to develop guidelines for practitioners in their support of adolescents in the process of career preparation.

The career development of gifted students is covered in the chapter by Jae Yup Jung (*The career development of gifted students*). In the first instance, the author argues for the importance of career development in gifted students by drawing on the Differentiated Model of Giftedness and Talent. This model is used to draw a link between the high level abilities of gifted students and their relevance for the achievements of these students in future careers. The author, then, reviews several factors that may be implicated in the career development of gifted students, including ability and interests, multipotentiality, perfectionism, need for cognition and intellectual stimulation, others' expectations, gender role expectations, *inter alia*. Following from this, the author considers the unique ways that gifted students approach career decision making, and reviews existing work on the career aspirations of gifted students. An important pattern of career preference is identified for gifted students, namely the preference for traditional and investigate-type careers that involve

methodical and analytical work, typically found in natural and mathematical sciences. Finally, the author discusses two career theories of particular relevance for understanding the career development of gifted students (viz., the theory of circumscription and compromise and the theory of work adjustment), and reviews extant empirical models of the career-decision-making processes of gifted students.

The chapter by Maria Cristina Ginevra, Laura Nota, Salvatore Soresi, Lea Ferrari, and V. Scott Solberg (*Career guidance for children and youth with disabilities*) focuses on career guidance for children and youth with disabilities. In this chapter, the authors first overview salient job market challenges, such as globalization, technological progress, precarious work, and demographic changes, which may, especially, impact the life context for individuals with disabilities. The authors then draw on the Life-Design paradigm and Positive Youth Development paradigm to advance an inclusive perspective on career guidance for children and youth with disabilities. They make an argument for the need for career interventions for children with disabilities, beginning in early childhood, to maximise their opportunities for optimal workforce participation. The authors close the chapter by considering diverse macro-, meso-, and micro-level interventions that can be implemented to foster career guidance from an inclusive perspective.

The career development of refugees is considered in the chapter by Hannes Zacher (*Career development of refugees*). The author argues for the centrality of employment as a mechanism to achieve the goal of integrating refugees into mainstream society. The author first overviews three theoretical frameworks (i.e., social-cognitive career theory, life-span life-space theory, career construction theory) as conceptual bases with potential applications to the career development of refugees. Following from this, the theoretical and empirical literature on refugee career development is reviewed. In particular, the author considers existing work on four chief aspects of the career development of refugees as follows: (a) development of vocational aspirations among students with refugee backgrounds; (b) job search integration into the labour market; (c) adapting to career tasks and challenges during employment; and (d) career counselling intervention for refugees. The author concludes the chapter by considering implications for future theorising and research as well as vocational practice. Such implications are diverse and span recommendations such as using integrative career development frameworks, comprising individual-difference, contextual, and agentic factors, to understanding refugee career development, drawing on longitudinal study designs to better capture a lifespan focus, and focusing on more specific subpopulations of refugees (e.g., gender and cultural differences), *inter alia*.

The career guidance of girls and women is considered in the chapter by Jenny Bimrose (*Guidance for girls and women*). The chapter commences with an elaboration of the social construction of gender and its variation beyond historical conceptualizations. Set against the changes on the construction of gender over the past 20 years, the author notes, however, that gender inequality continues to be a feature of labour markets across the world. It is on this basis that the author argues for a gendered approach to career guidance and counselling. The author overviews key indicators of gender inequality in the labour market, such as the gender pay gap,

occupational segregation, non-standard employment and sexual harassment. The author also considers the central issue of intersectionality, noting the interaction of gender with other structural variables that associate with social disadvantage (e.g., ethnicity, socio-economic status, disability status). The author then reviews theories and frameworks that may be appropriate for career practitioners in understanding the career development of girls and women, including Gottfredson's theory of circumscription and compromise, systems perspectives, career self-efficacy, and feminist approaches. Finally, the author overviews a case study approach to understanding women's career guidance needs. Specifically, the author uses a series of case studies to explore the application of gender-sensitive approaches, which accommodate the unique experiences of girls and women, to career guidance practice.

The chapter by Ilaria Di Maggio, Sara Santilli, and Laura Nota (*Life design and people with experience of substance abuse*) uses the Life Design paradigm to understand the career development of people with the experience of substance abuse. In the first instance, the authors review five core presuppositions of the Life Design framework that emphasise human diversity, uniqueness, and purposiveness in work and career. The authors then provide an overview of resources proposed by the Life-Design Paradigm, including career adaptability, courage, and hope, that may be useful for the career planning of those with the experience of substance abuse. Following an overview of the barriers and challenges confronting these individuals in their professional and social contexts, the authors review research showing the adaptive roles of career adaptability, hope, and courage in supporting the professional development of individuals experiencing substance abuse.

Gabriela Topa and Carlos-Maria Alcover review recent theoretical developments and empirical findings on late career development in their chapter (*Late career development and retirement*). Initially, the authors review the concept of late career development; they centre their discussion on perceived work ability as an important determinant of extending working life. Importantly, the authors draw a key distinction between age as an objective criterion, which is not, they argue, the best predictor of a person's capacity to continue working, and perceived work ability as a subjective perception of their functional capacity for work. The authors subsequently overview selection, optimization, and compensation strategies and job crafting as appropriate mechanisms to promote late career development. Following from this, the authors discuss factors at the societal, (e.g., economic crisis), organisational (e.g., on-the-job training opportunities), and individual (e.g., occupational future time perspective) levels that may be implicated in late career development. Finally, the authors discuss several modalities of late careers, including early retirement, on-time retirement, and senior entrepreneurship and bridge employments.

The chapter by Peter McIlveen and Nicole McDonald on the vocational psychology of agriculture (VPA) examines the central role that vocational psychology can play in sustainable agriculture (*The vocational psychology of agriculture: Fiat panis*). Specifically, the authors advance the VPA as an ethical and scientific program that directs research, education, and policy in understanding how vocational psychology may contribute to attaining Zero Hunger. The chapter starts from an observation that hunger and undernourishment are worldwide problems, and the

sustainable production of food is vital to the human population. From this, the authors advance the ethical paradigm of the VPA, discussing its ethical foundation in sustainable development goals and the Psychology of Working Framework. Here the authors note the centrality of decent work to the VPA. The authors then review the “state of the science” of a vocational psychology of agriculture. They argue that that psychology has not kept pace with agriculture for at least the past 40 years, and vocational psychology, in particular, is relatively absent from the agricultural field. The authors then propose the Social Cognitive Career Theory (SCCT) as a scientific framework to guide VPA research using this as the conceptual basis for advancing a Social Cognitive Model of Agricultural Career Interest Development. The authors conclude the chapter with the elaboration of a research and development agenda for the VPA.

Part III: Educational and Vocational Guidance in a Social Context

Part III of the Handbook comprises five chapters that, together, highlight the critical role of broad social and personal contexts in career development and guidance. This part of the Handbook includes a chapter arguing for the need to rethink, reshape, and adapt career theory and practice continually and within context (*Contextualisation as a determining factor for career counselling throughout the world*). The specific impact of globalization on careers and the implications for career guidance are also considered (*Globalisation: Implications for careers and career guidance*). In addition, Part III of the Handbook contains chapters covering career guidance in the Middle East and North Africa specifically (*Career guidance and the Arab Mediterranean countries: Epistemologies and practices from the global South*) as well as the frameworks, opportunities, and challenges for training career practitioners in international contexts (*Training career practitioners for the current context*). Finally, a chapter is included elaborating on the living systems theory of vocational behaviour and development, which posits that individuals are living systems that construct their vocational pathways, work experiences, and career patterns through episodes of interaction with affordances within individual contexts (*Living Systems Theory: Using a person-in-context behaviour episode unit of analysis in career guidance research and practice*).

The chapter by Michelle Hood and Peter A. Creed (*Globalisation: Implications for careers and career guidance*) provides an overview of the impact of forces in globalisation and the challenges and opportunities these present for workers and career guidance practitioners. The authors first overview the concept of globalisation, noting two distinct perspectives (viz., transformation vs homogenization). They, next, consider global labour market trends, including increased productivity and real wage growth alongside stationary overall unemployment rates in OECD countries. They note, nevertheless, the presence of pockets of increased unemployment, such as the increase in the percentage of unskilled men not participating in the

Australian labour market. This leads to an important paradox that the authors discuss: although increased opportunities have emerged from global labour mobility, outsourcing, and technological advances for some workers, for others, particularly unskilled and less well-educated workers, these factors have fueled fears about job insecurity and unemployment. Following from this, the authors discuss specific challenges emerging from technological progress, including appreciable digital disruption in the labour market, with some occupations likely to disappear, resulting in the displacement of workers, and the increasing need for “twenty-first Century” skills, such as digital competence and problem solving. The authors then consider the increasingly important role that lifelong learning and career guidance will play in the retaining and redeployment of workers as they confront more job and career changes across the lifespan. Finally, the authors discuss implications for career practitioners, suggesting that a shift towards career practitioners assisting clients to develop twenty-first century skills will be critical to their navigation of a global world.

The Living Systems Theory of Vocational Behaviour and Development (LSVD) is overviewed and extended in the chapter by Fred W. Vondracek, Erik J. Porfeli, and Donald H. Ford (*International Handbook of Career Guidance*). The authors first provide a historical review of theoretical issues and developments that led to the development of the LSVD. This theory was developed to explain the processes through which individuals construct their vocational pathways, work experiences, and career patterns via interactions with opportunities within their context. The authors describe the key features of the theory, with particular attention on behaviour episodes, which are the fundamental, person-in-context units of analyses in the theory. The authors, then, consider how behaviour episodes and other feature of the LSVD can be used in career guidance and counselling process, highlighting the dynamic and holistic process of counselling from this theoretical perspective. Finally, the authors consider person-focused research from the LSVD perspective and discuss analytic approaches that allow for the examination of tenets of the theory, which overcome limitations of traditional analytic approaches that centre on inter-individual variation alone.

Career guidance theory and practice in Arab Mediterranean countries are covered in the chapter by Ronald G. Sultana (*Career guidance and the Arab Mediterranean Countries: Epistemologies and practices from the global South*). As the author notes, the aim of this chapter is to challenge the universalising language characterising career guidance theory and practice. The author argues that attention must be given to so-called “localisms” and “particularisms”, such that context-sensitive theoretical principles and practices can be developed. The author notes, as the basis of the chapter, two comparative research projects on career education and guidance in the Middle East and North Africa. Following a brief description of these projects, the author outlines the epistemological and political standpoints he assumes in investigating career guidance, rationalising the adoption of a critical social science perspective, as distinguished from mainstream vocational psychology. The author also considers the importance of context when theorising about and practicing career education and guidance as a social practice. The author highlights the important role of regional studies that are sensitive to context in understanding

career guidance theory and practice. In particular, the author overviews seven aspects of labour market and cultural dynamics specific to these regions, including inequality, informality, mobility, community, spirituality, identity, and reflexivity, and discusses how each of these shape and reshape career guidance and education.

The chapter by Spencer G. Niles, Raimo Vuorinen, and Azra Karajic Siwec (*Training career practitioners for the current context*) overviews recent development in opportunities for, and issues related to, the training of career practitioners. The authors adopt an international perspective, identifying similarities and differences in the level and scope of training career practitioners. The authors detail the substantial variability that exists in the training of career practitioners, which reflects necessary variation in national contexts. The authors overview how national-context-specific factors shape career development needs and, by implication, the training required for providing career services. Attention is given to contexts such as Argentina, Brazil, Europe, Asia, Australia, and North America. Notwithstanding this variability as reflecting necessary contextual differences, the authors note the need for more uniform standards and language within the profession. The argument is advanced that, though career services are offered in several national contexts, often those who provide career services have no training in career interventions. Given the complexity of career development in the twenty-first century, broad and sophisticated competencies are required to address individuals' career needs, which has implications for the development of training programs to appropriately prepare career practitioners. The authors note the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) as providing an example of more rigorous standards than what exists in many contexts and provide a reasonable goal for standards adherence for training practitioners worldwide.

The chapter by Jacobus G. Maree (*Contextualisation as a determining factor for career counselling throughout the world*) argues for the need to rethink, reshape, and adapt career theory and practice continually and within context. The chapter begins by clarifying the meaning and use of the terms contextualization, decontextualization, recontextualization, and co-contextualization as central concepts in the chapter. The author then examines occupational changes globally since the beginning of the twentieth century, provides an overview of the development of theoretical and conceptual frameworks that have influenced career counselling, and contextualises the interplay among the four helping models in career counselling, the global economy, and the four industrial revolutions since the beginning of the twentieth century. Following from this, the author overviews the personality traits highlighted by the associated helping models in career counselling, including personal character, interests and values, and identity. It is against this background reviewed by the author that the argument for the need to rethink, reshape, and adapt career theory and practice continually and contextually is advanced. The author argues that career theory and practice should be developed and adapted contextually to increase applicability and meet the needs of people from diverse contexts. The author then overviews the three major kinds of career counselling interventions as a precursor to elaborating the design of a career development policy framework based on best practices, with an applied example from South Africa.

Part IV: Testing, Assessment and Evaluation in Educational and Vocational Guidance

Part IV of the Handbook contains 12 chapters that, together, provide coverage of testing, assessment, and evaluation in educational and vocational guidance from an international perspective. Our choice to give considerable attention to career testing, assessment, and evaluation reflects not only the need to provide coverage of rapid and recent developments in these areas but also our desire to acknowledge their enduring and critical role in career guidance and counselling. This part of the Handbook includes a chapter that reviews the methodological and practical implications of psychological assessment in career guidance in an international context, including critical issues of construct, method, and item bias (*Testing and assessment in an international context: Cross- and multi-cultural issues*). Chapters are also included that overview the assessment of (a) the career maturity construct (*Career maturity assessment in an international context*) and (b) values and life role salience in career counselling (*Values and life role salience and their assessment in career counselling*). Considerable attention is given to vocational interest assessment, including vocational interest assessment across cultural contexts (*Interest assessment in a cross-cultural context*), the development of vocational interest (*Vocational interests: Revisiting assumptions about their development and what they predict*), and person-centred approaches to interest assessment (*Person-centred research in vocational psychology: An overview and illustration*). A chapter is also included that considers the use of the Occupational Information Network (O*NET) in international career assessment and guidance (*International career assessment using the Occupational Information Network (O*NET)*). Chapters are also devoted to (a) qualitative career assessment (*Qualitative career assessment: A higher profile in the twenty-first century?*), (b) contemporary threats to psychometrics as basis for career and educational assessment (*Abuse and misuse of psychometrics as a threat to vocational psychology*), and (c) ethical standards and guidelines for testing and assessment (*Ethical issues in testing and assessment*). Finally, attention is given to the evaluation of career programs, including action theory as a paradigm for evaluation in education and vocational guidance (*Action Theory: An Integrative Paradigm for Research and Evaluation in Career*) and principles and practices of conducting evaluations of career guidance programs using a six-step method (*Evaluation of career guidance programs*)

The chapter by Alexis Hanna, Christina Gregory, Phil M. Lewis, and James Rounds (*International career assessment using the Occupational Information Network (O*NET)*) provides an overview of the use of the Occupational Information Network (O*NET), as a major source of occupational information, in career research, assessment, and guidance, with a focus on the impact of O*NET on international career assessment. The authors first consider the historical development of O*NET as the successor to the Dictionary of Occupational Titles. The authors also overview ongoing developments of the O*NET project, and they describe the structure of O*NET as well as available data and products, including the O*NET Interest Profiler, Work Importance Locator, Work Importance Profiles, and Ability Profiler, which can

be used for career assessment. The authors, then, consider career assessment using the O*NET, highlighting the role of O*NET as a platform on which to base career assessment guidance programs given the rich occupational data and resources available. In particular, the authors consider career assessment using the O*NET in the United States, providing examples as diverse as use by the US Army, Seattle Washington Public Schools, and Texas Workforce Commission, *inter alia*. They also provide an overview of international career assessment using the O*NET, international career models, research and data and products based on the O*NET. Finally, the authors consider the challenges inherent in applications of O*NET internationally, chief amongst which is the extent with which O*NET data (e.g., worker characteristics, occupational requirements) generalize across nations and cultures, and they briefly discuss the future of international career assessment with O*NET.

The chapter by Jérôme Rossier and Maria Eduarda Duarte (*Testing and assessment in an international context: cross-and multi-cultural issues*) overviews methodological and practical considerations in psychological assessment in an international context. The authors begin the chapter by arguing that globalization, increases of migration flows, and worldwide competitiveness demand a rethinking of testing and assessment procedures and practices towards a more comprehensive approach to assessment that better describes the strengths of diverse populations. They argue that such a comprehensive approach to assessment has numerous methodological implications, such as cross-cultural equivalence and construct, method, and item bias. The authors, then, consider the challenges of non-discriminatory assessment, noting that counselors should develop their clinical cross-cultural competencies, develop more specific intervention strategies, and respect cultural differences to foster better non-discriminatory assessment. Following from this, the authors provide specific suggestions for the translation and adaptation of psychological instruments, involving a six-step process. They also provide suggestions for the development of culture-specific measures and the practical use of these instruments. Finally, the authors argue for more research in psychological assessment that (a) considers integrative emic-etic approaches and (b) draws on multidisciplinary approaches that highlight the interaction of personal characteristics and environmental factors.

In his chapter (*Career maturity assessment in an international context*), Mark B. Watson overviews the development and measurement of the construct of career maturity within an international context of macrosystematic influences. The first section of the chapter describes the historical context in which the construct was developed and its modernist roots in measurement. The author notes that these traditional conceptualizations of career maturity from a normative and linear perspective have been increasingly challenged, with concerns about the relevance and validity of the construct, specifically with respect to multicultural, post-modern contexts. In particular, issues of cultural relativity, cultural validity, cultural specificity, and psychometric concerns about construct equivalence are discussed. Watson concludes the chapter by considering how career maturity and its measurement has adapted in the past few decades, including changes in the construct and its measurement, and how it will need to adapt further to maintain alignment with the present contexts in which career development occurs.

Chun Tao, Saurabh Gupta, and Terence J. G. Tracey overview assessment of vocational interests in cross-cultural contexts in their chapter (*Interest assessment in a cross-cultural context*), with a specific focus on the issue of cultural equivalence. The authors first consider construct equivalence in cross-cultural assessments broadly, noting several challenges, such as translation and the tension between emic and etic issues, that make it difficult to establish construct equivalence. Following from this, the authors review major models of vocational interest, such as Holland's typology and hexagonal structure, Gati's partition model, the spherical model of vocational interests, and discuss their cross-cultural applications. The authors' review suggests that (a) construct equivalence is not supported for the RIASEC scales across cultures, (b) there is comparatively more support for the cultural equivalence of Gati's model, and (c) there is emerging support for the cultural equivalence of the Personal Global Inventory designed to operationalize the spherical model of vocational interest. The authors, then, discuss the meaning of differences in the structure of interest across cultures, and the implications for the use and interpretation of measures. Finally, the authors consider the issue of the invariance of links of interest with external variables, such as occupational choices and personality traits.

The chapter by Kevin A. Hoff, Jessamyn G. Perlus, and James Rounds on interest assessment (*Vocational interests: Revisiting assumptions about their development and what they predict*) reviews recent research on the development and predictive validity of vocational interests. The authors organize the chapter in two parts. In the first part, the authors review research on the development of vocational interests. Attention is centred on the normative changes in interests across the lifespan. In particular, they review recent meta-analytic results showing that vocational interests change meaningfully from adolescence to adulthood. They identify two general patterns of change in adolescence; specifically, interest scores generally decreased during early adolescence but showed increases in late adolescence. In young adulthood, interests involving People tended to increase whereas those involving Things decreased or remained stable. The authors also consider gender differences in vocational interests and interest development across the lifespan. The second part of the chapter reviews research on the predictive validity of vocational interests for diverse career and academic outcomes, including job performance, career and academic success, and job satisfaction. The authors note that a major, and somewhat surprising conclusion, from this review is that interests are strong predictors of performance-related criteria but relatively weaker predictors of satisfaction-related outcomes. The authors note that such findings underscore the needs to rethink the importance of interests in human cognition, affect, and behaviour. They raise the possibility of a process model of interest influence in which job performance mediates the associations of interest fit and satisfaction. The chapter concludes with a consideration of theoretical and practical implications of the research reviewed.

Branimir Šverko, Toni Babarović, and Iva Šverko consider the assessment of values and life role salience in their chapter (*Values and life role salience and their assessment in career counselling*). The chapter is organized in three sections. In the first section, the authors overview fundamental conceptualizations of values and life roles. In particular, the authors discuss conceptual definitions of the constructs, con-

comitant taxonomies positing different dimensions of value, and relations with conceptually similar constructs. The second section is centrally concerned with methodological issues in the assessment of values and life roles. These include direct and indirect assessments of values, rankings and ratings of values, and the cross-cultural universality of measurement. In addition, this section provides an overview of existing instruments measuring values and role salience, such as the *Minnesota Importance Questionnaire*, *Work Aspect Preference Scale*, *Values Scale*, *Salience Inventory*, *Life Values Inventory*, and *Work Values Questionnaire*. The final section of the chapter discusses the use of value and role salience measures in career guidance and counselling. Notably, the authors consider the use of these measures in traditional, trait-oriented approaches as well as in developmental and constructivist approaches.

The chapter by Peter McIlveen and Harsha N. Perera (*Abuse and misuse of psychometrics as a threat to vocational psychology*) considers current threats to psychometrics and its continued use in vocational psychology, career development, and cognate fields. The authors overview the philosophical foundations of post-positivism in contrast to the anti-psychometrics discourse that has emerged from critical scholarship. They do so as the basis for raising concerns that this critical commentary threatens the public understanding of the ethical use and utility of psychometrics, namely standardized testing in education. They illustrate these concerns by elaborating on current misconceptions on the Australian National Assessment Program—Literacy and Numeracy (NAPLAN) emerging from critical scholarship. The authors systematically dismantle these misconceptions with claims for the need for scientific evidence and inquiry to support such critical perspectives. The authors conclude by suggesting that it is time for psychology to advocate for the science and technology that it has refined for over a century in the struggle for knowledge and power.

The chapter by Mary McMahon on qualitative assessment (*Qualitative career assessment: A higher profile in the twenty-first century?*) overviews qualitative assessment in career counselling. The chapter starts out by acknowledging that, while there have been significant milestones in qualitative career assessment since the publication of the 2008 edition of this Handbook (e.g., the publication of the first book on qualitative career assessment; McMahon and Watson 2015), this form of career assessment continues to assume a limited profile in the career development literature. Next, the author considers the question “what is qualitative career assessment?”. Although a seemingly straightforward question, the author is quick to argue that the critical challenge for qualitative career assessment is definitional clarity, noting various definitions that have been given in the extant literature. Importantly, the author makes clear the alignment of qualitative career assessment with constructivist and social constructionist theory. Following from this, assessment in career counselling is discussed, and a brief history of qualitative career assessment is provided. The chapter, then, provides an overview of the use and development of qualitative career assessments, including a description of some common instruments used. The chapter concludes with a discussion of the advantages and disadvantages of qualitative career assessment and considers the challenges that this type of assessment faces.

The chapter written by Donna E. Palladino Schultheiss, Graham B. Stead, and Chieh-Yu Liao (*Ethical Issues in testing and assessment*) provides an overview of the issues impacting the ethical practice of career assessment and testing. As context, the authors note that technological and economic factors are changing the fabric of work and the workforce, yielding different needs among clients who may use or benefit from career assessment. Set against this backdrop, the authors suggest the need for practitioners and researchers to recognize such global changes, such that they may choose career assessment processes that are most consistent with ethically competent practice. Indeed, they argue, practitioners have a responsibility to their clients and to the general public to maintain ethically competent practices that are in the best interests of the people that they serve. Accordingly, professional standards and ethical guidelines have been developed by many professional associations to assist practitioners in decision-making regarding professional behaviour. The authors overview the role of ethical codes in testing and assessment, drawing particular attention to *The Universal Declaration of Ethical Principles for Psychologists*. Following this, the authors discuss standards and guidelines for appropriate test uses, including those found in the more recent *Standards for Educational and Psychological Testing*, and the guidelines developed by the International Test Commission. The authors, then, consider research examining standards of competent and ethical practice across the globe, noting that, though such research reveals several commonalities across countries in the recognition of the importance of competent and ethical practice, the activities that constitute competent practice may differ across countries. Finally, the authors discuss several important issues relevant to ethical testing and assessment, including cross-cultural applicability and transportability of tests, translation guidelines, telepsychology, computer-and-internet-based assessment, privacy and confidentiality, feedback and assessment, culturally-competent career assessment practice, and dealing with vulnerable populations, such as children and adolescents.

In their chapter (*Person-centred research in vocational psychology: An overview and illustration*), Harsha N. Perera, Danette Barber, and Peter McIlveen provide an introduction to person-centred analyses in vocational psychology, with an application to vocational interest assessment. The authors first provide an overview of the important concept of unobserved population heterogeneity and contrast this with observed population heterogeneity as the basis for considering person-centred analytic approaches within a general latent variable mixture modeling framework. They then discuss the utility of person-centred strategies by overviewing recent empirical applications of mixture models in vocational psychology, including applications to work motivation from a self-determination theory perspective, career adaptivity and adaptability from a career construction theory lens, and vocational interests from Holland's trait-based perspective. Following from this, the authors provide a gentle introduction to the Latent Profile Analysis (LPA) model, which is one of the more widely used mixture models in the psychological literature. They draw comparisons of the LPA approach with more traditional person-centred analytic techniques and the common factor model to foster familiarization of the LPA model. The authors, then, illustrate LPA with RIASEC vocational interest data, and consider implications of the statistical model for research and practice.

In the chapter by Richard A. Young and Ladislav Valach (*Action theory: An integrative paradigm for research and evaluation in career*), action theory is proposed and illustrated as an integrative paradigm for research and evaluation in career, including educational and vocational guidance. The authors begin the chapter with an overview of action theory as an explanation of career. Specifically, contextual action theory is argued to provide a conceptual framework for understanding the processes through which actions (i.e., intentional goal-directed behaviour of individuals), projects (i.e., several discrete actions that occurs over a medium-length period with a common underlying goal), and career (i.e., coalescing of projects over a longer period of time) are linked. The framework hinges on the idea that the common experience of people is that their behaviours may be understood as goal-directed action, and includes important cognitive and social dimensions. Following from the overview of action theory, the paradigm is used to illustrate how a life-enhancing career can be developed through attention to action, project, and career, pointing to evaluative criteria in research and evaluation contexts. The application of the paradigm to research and evaluation in career is discussed, and the procedures for its use in research and evaluation are provided, including consideration of the action as the unit of analysis, data gathering procedures, and data analysis. Finally, its use in counselling, as one of the primary processes of career guidance, is discussed.

The chapter by Susan C. Whiston, Nancy Goodrich Mitts, and Yue Li (*Evaluation of career guidance programs*) centres on the evaluation of career guidance programs. The chapter begins by examining research related to the effects of career guidance programs or interventions on career, academic, and personal development. In this examination, the authors discuss the effectiveness of career guidance programs and interventions, including consideration of (a) effective modalities in the provision of career guidance, (b) the clients that benefit from career guidance programs, and (c) typically used outcome measures in career counselling and guidance research. Following this, the authors provide guidelines on the conduct of an evaluation of career guidance programs drawing on Whiston and Brecheisen's (2002) six-step process for evaluating career counselling programs. The six steps include (1) identifying the focus of the evaluation; (2) formulating the evaluation design and procedures; (3) determining evaluation or outcome measures; (4) collecting data; (5) data analyses and interpretation; and (6) approaches for using information cleaned from the evaluation. The authors conclude the chapter with recommendations for future research and evaluation studies and provide suggestions on how practitioners, researchers, and scholars can work to enhance the quality of evaluation of career guidance programs.

In the final chapter of the Handbook (Personal welfare through career guidance), the editors, James A. Athanasou and Harsha N. Perera, provide concluding comments on contemporary issues for career guidance. The argument is advanced that the fundamental intention of career guidance is to ensure that the individual maximizes lifelong career satisfaction. With this as a founding tenet, the chapter briefly considers prominent contemporary issues that confront career guidance services and practitioners, including the presence of informal labor markets and changing formal workplaces, accelerating digital transformation and automation of processes,

and the need to accommodate the work-based experiences of people on the margins. It is argued that there is scope for professional guidance in this changing, complex, and competitive labor market. The chapter concludes with a personal manifesto for career guidance provisions at the individual level, which is founded on 25 working principles of career guidance practice.

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Part I
Theoretical Foundations

Chapter 2

A History of Career Counselling



Mark L. Savickas and Suzanne Savickas

Abstract The present chapter describes the history of how the counselling profession has successfully met the challenge of social transitions in devising youth mentoring for agricultural communities, vocational guidance for industrial cities, and career development counselling for corporate societies. To remain relevant and useful in the twenty-first century, members of the profession are again reinventing its models and methods, this time concentrating on how to fit work into life, rather than fit life into work. The future of the profession rests on counsellors' ability to help students and clients adapt to the challenges inherent in the new organisation of work in liquid societies.

Keywords Vocational guidance · Career construction · Life design · Individualization · Boundaryless career · Transactional employment contracts

In modern societies, individuals may experience decision-making difficulties in choosing an occupation and encounter barriers in developing a career. At the dawn of the twentieth century the occupational structure in cities had become so complex compared to nineteenth century villages that social workers began to help young people make educational and vocational choices. In short order, the principles and practice of vocational guidance emerged in the social work profession and overtime coalesced in a separate profession called counselling. Today, the American Counseling Association (ACA) defines counselling as “a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals” (Kaplan et al. 2014, p. 366). ACA encouraged particular specialties to elaborate this consensus definition endorsed by 29 major counselling organisations by adding a statement about their area of focus.

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From our perspective, this elaboration would simply adopt Donald Super's definition of career counselling as

the process of helping a person to develop and accept an integrated and adequate picture of himself [or herself] and of his [or her] role in world of work, to test this concept against reality, and to convert it into reality, with satisfaction to himself [or herself] and benefit to society (p. 92).

The goal of career counsellors originally began, and continues to be, empowering individuals to make educational and vocational choices that match their abilities and interests to occupational requirement and rewards. The basic paradigm of "matching" people to positions provides a cognitive framework and expresses a very general conception of the process and goal of career counselling as a social enterprise. In response to major societal and economic transitions during the last 150 years, counselling professionals have applied the general paradigm of matching to specify four distinct sets of *conceptual models* and *practice methods* for helping people choose jobs. A career counselling model refers to a set of interrelated principles assumed to describe, explain, and predict vocational behavior and its development. In comparison, career counselling methods refer to systematic procedures and techniques that implement the principles of a counselling model. The principles of a conceptual model direct the processes of a practice method. Our thesis is that each time the social organisation of work changes, the counselling profession innovates its models and methods for helping individuals make educational and vocational choices (Savickas 2015).

In the present chapter, we explain how during each of four sequential economic eras distinct career counselling models and methods evolved. During the pre-modern agricultural era counsellors used a pedagogical model to devise mentoring methods. During the modern industrial era, counsellors used an individual differences model to devise vocational guidance methods. During the high modernity era, counsellors used a lifespan model to devise career development methods. Now during the post-modern era, counsellors are using a life design model to devise career construction methods. The dominant helping model of a prior era never completely disappears; instead, it fades in popularity as the new methods gain adherents. So for example, when guiding replaced mentoring as the dominant method, mentoring still remained a viable counselling strategy. Today, all four career counselling methods are currently in use, with preference for a model and its methods being determined by the economic context in which it is applied. We organized the present chapter to describe the four main career counselling methods along the historical sequence in which they evolved: mentoring, guiding, developing, and constructing. The framework in Table 2.1 prefigures the content in the chapter.

Table 2.1 Career counselling philosophies, models, and methods during four economic eras

Economy	Philosophy	Model	Method
Agricultural (1850–1909)	Rationalist	Pedagogical	Mentoring
Industrial (1910–1949)	Empiricist	Individual differences	Guiding
Corporate (1950–1999)	Humanist	Lifespan	Developing
Global (2000–2050)	Constructionist	Life Design	Constructing

Mentoring in Agricultural Communities (1850–1909)

Vocational assistance emerged as an activity during the second half of the nineteenth century when economies were based on agriculture. Most people lived on farms, where there were no specialised jobs. Everyone performed various chores all day long. During the Victorian era in England and the Biedermeier period in Germany, communities encountered the beginning of modernity as scientific and political changes challenged the traditional social order. Agricultural communities were unified by personal relationships and collectivist values. The community emphasised a social ecology in which the moral order around people was engraved upon their minds. Individuals defined self by social function and the way in which they contributed to the shared social order. This social arrangement sought a uniform goodness expressed in hard work and ethical behaviour. The view of self emphasised during this era was called *character*. People were to strive to develop a good character. It was the family's and the community's job to inculcate or stamp this character onto each member of the group. To do this, the community enforced social norms and rules for moral conduct according to which all men and women were to act.

Choosing a life's work was not a problem for very many people because traditional societies offered few occupational choices. Essentially, individuals were assigned their work role. A predominant social norm for work assignment was called the *law of primogeniture*, meaning the right of the eldest child to inherit the entire estate. When applied to craftspeople, it became the notion of occupational inheritance, in which children inherit their parents' craft. This social system was a way of insuring for the community that the services provided by the parent would be continued by the children. Thus, the problem of choosing a vocation was not experienced by many young people. Starting at age six, most children performed chores on the farm or worked in the town as an apprentice. In a sense, the young person's work met the needs of the community. They contributed their work to the good of all. The impersonal economic forces of modern culture after the rise of science and machines challenged communal values and, in due course, brought an isolated individualism, but we are getting ahead of the story.

The transformation from agricultural collectivism to industrial individualism accelerated with the movement of workers from the farm or village to the city. In the city, people had to choose one major work activity, not perform the variety of chores as they had done at home. Choosing this one activity became a new problem generated by reorganisation of the social order. Thomas Carlyle was among the first to write about this problem. He was a Scottish scholar who initiated a tradition of Victorian era criticism that addressed the problems of the new social order. Carlyle (1833/1884) wrote an influential book, *Sartor Resartus*, on the problem of young people “getting under way” during a period when a culture was reconstructing itself. In his *The Tailor Re-tailored*, Carlyle formulated what, in the next century, would be called the person-environment fit paradigm.

To each is given a certain inward Talent, a certain outward Environment of Fortune; to each, by wisest combination of these two, a certain maximum Capability. But the hardest problem were ever this first: To find by study of yourself, and the ground you stand on, what your combined inward and outward Capability specially is (p. 92).

With the increase in occupational alternatives, society devised a mechanism to help youth choose among the alternatives. To assist youth make vocational choices, society offered mentoring provided by *friendly visitors* (USA) and *voluntary visitors* (England). These supportive volunteers eventually became organised within community and social welfare organisations as the profession of social work emerged to address the ills of the city. The change in population distribution caused by the movement to commercial cities led to problems such as unemployment, vice, alcoholism, delinquency, and crime. In 1844, twelve salesmen in a London dry goods store founded the Young Men’s Christian Association (YMCA) to improve the spiritual condition and mental culture of young men engaged in drapery and other trades (Hopkins 1951). To assist young men, working youth, and apprentices, YMCAs opened libraries and offered courses in reading, spelling, grammar, history, geography, writing, arithmetic, and the Bible.

The first YMCA in the USA opened in Boston in 1851. Additional YMCAs followed the well-established routes of transportation as they spread quickly to other urban centres. The first world conference of YMCAs was held in Paris in 1855. As part of its relief work in the USA, YMCAs opened employment bureaus in response to Civil War veterans’ need to find jobs. The need intensified with the recurrent depressions that followed the Civil War. For example, in 1866 the Chicago YMCA hired a man to start an employment bureau and he did placement work there for the next 16 years. Records of the Chicago bureau indicate that in 1875 alone he assisted 4000 people obtain jobs. The Boston association hired an employment officer in 1872, and he placed 700 people during his first year (Hopkins 1951).

During this period, the YMCA movement added a new mission to its goal of helping young workers. It began to concentrate on helping boys, accelerating a trend that had started in the 1870s when the YMCAs tried to improve conditions for poor urban children (Super 1929). The concentration on boy’s work soon spread to helping immigrants and rural youth who had moved to the city as well as college students. “When a feller needs a friend” became the catch phrase that captured the

purpose of the friendly visits between boys and YMCA volunteers. These volunteers and the individuals who staffed the YMCA employment bureaus engaged in what today we call *youth mentoring*. They based their mentoring on the culture's rationalist philosophy and educators' pedagogical model.

Around 1901, the YMCA formally committed to boys' work on a large scale, profoundly influenced by the newly emerging field of child development (Davidson and Benjamin 1987), as well as by sociological treatises on street boys, newsboys, delinquents, and boys working in coal mines (Levine and Levine 1992). Based on its program of character education using principles of the new educational psychology, YMCAs pioneered offering vocational advice to youth. The YMCAs of this period considered advising an important adjunct to their educational programs because they realised that they were in a strategic position to provide mentoring services. The bulk of this mentoring involved job placement performed in conjunction with vocational training and other educational programs. The natural mentoring that occurred during friendly visits became institutionalised in the cities in 1910 when the Big Brothers organisation was founded in Cincinnati, Ohio. The work of Big Brothers and Sisters to this day resembles the friendly visits of the agricultural era when a responsible adult offered character education and vocational advice to youth in need of a friend.

The early informal mentoring programs of the YMCAs later became systematised with the emergence of C.C. Robinson's (1912, 1922) *Find Yourself* program. Robinson called his approach to vocational mentoring a friendly method because advice was provided as a friend, not as an expert would do it. This sympathetic approach was to be offered to every boy who entered a YMCA program. Placement services along with character education in the YMCAs reached their zenith in the 1920s and 1930s. When YMCA educators and social workers promoted character education, they meant building self-discipline and habits of responsibility and morality (Super 1929). The pseudo-science of characterology—the use of phrenology, physiognomy, and palmistry to assess character—was applied to vocational choice and selection by leading exponents including Richards (1881) who proposed a new profession of “vocophy” that would help youth make vocational choices. While the practitioners of characterology recognised the paradigm of matching positions, their bases for matching were character readings done by judging bodily appearance—a procedure analogous to “judging a book by its cover.” The helping hand offered by friendly volunteers, even with the assistance of characterology, soon proved ineffective in meeting the needs of city youth.

Vocational Guidance in Industrial Cities (1910–1949)

The second phase of the industrial revolution, spanning the years 1871–1914, was propelled by the electrical motor and the internal combustion engine. The technology enabled by electricity and engines replaced the labour of marginal workers. This technology also prompted the crystallisation in the early twentieth century of

the social invention called *jobs*. When on the farm, individuals did not actually have a job, they simply performed a variety of chores. However, individuals who lived in commercial cities were assigned just one task in an industry. They repeatedly performed this one task, which became known as their job. They were instructed to do that job “the one best way” following the prescriptions of Taylor’s (1911) scientific management and Frank and Lillian Gilbreth’s (1911) work design method.

Industrial society’s modern arrangement of work differed fundamentally from that of the feudal system. The feudal system allowed people to pursue activity whereas the modern system forced them to pursue consumption and accumulation. The feudal system and later the agricultural economy severely limited social mobility yet they offered freedom of activity and the joys of craftsmanship. Social critics such as Carlyle (1836) noted that urban living allowed more mobility yet it forced people into unnatural activities. Carlyle asserted that the feudal system was better at assigning individuals an activity and then granting them the freedom to pursue that activity in a manner they found pleasing rather than forcing men and women to serve the standardised job by doing it the one best way. The move to cities or urbanisation wrought a major social change. Modernisation occurred because of significant economic progress, technological advances, and value changes. Urbanisation and industrialisation shaped what sociologist termed the First Demographic Transition (Lesthaeghe 2014) as individuals adapted their life strategies to the new realities of the twentieth century that included institutionalisation of science, secularisation with strong normative regulation, segregating sex roles, nuclear family, low divorce rates, concern with income and working conditions, public universities, and orderly life transitions.

The social arrangement of modern work into jobs and then jobs into occupations led to the growth of cities and urban living. For example, by 1910 half of the population of the USA lived in cities. Today only 2.5% of the USA population lives on farms. Vocational guidance in the USA originated in Massachusetts where 75% of state’s population lived in cities or towns and 75% depended on wages owning neither factory, farm, nor shop. This movement or immigration from provinces to cities was also evident in Paris, London, Brussels, Petersburg, and Vienna. For example, the population of London in 1800 was one million. By 1850, the population had grown to 2.3 million and by 1900 to 6.48 million. This population growth rate was just slightly faster than that of Paris.

Individuals who moved from a homogeneous town to a heterogeneous city encountered clashing cultures and foreign languages that dissolved feelings of community and instilled feelings of isolation. Of course, these urban populations were living in compact surroundings. Cramped quarters led to the qualitative reorganisation of life with new architecture and transportation systems. The literature of that era referred to cities as a harem of opportunity, brilliant emporium, brawling marketplace, exotic wonderland, battlefield, and inferno. Fragmentation of experience became a characteristic element of city living during these turbulent times. Many people were simply lost in the city as they experienced disorientation, disjunction, discontinuity, dissonance, and disorganisation. The incessant shower of unrelated experiences, along with the lack of a stable community to absorb these shocks led

to the growth of urban ills, especially among youth. It is no wonder that on September 1, 1910, the Vatican in Rome introduced a compulsory oath against modernism to be taken by all Catholic priests upon ordination.

As Virginia Woolf (1924) observed, “On or about December 1910, human character changed.” That date marks the time when the industrial economy began to overwhelm the agricultural economy and city living began to overshadow country living. Woolf rightly observed that a new sense of self was needed for the industrial era, one to replace the Victorian sense of self known as character. The modern sense of self came to be known as personality, another social invention and one that eventually became linked to the other social invention we discussed, namely jobs. *Persona* means the roles that one assumes and implies that these roles change according to situation and context. Instead of having a fixed character stamped on them, individuals living in the city were to implement life-style preferences and adapt their image or social facade to fit the roles that they chose to play. Self-expression would be best fostered by having the *persona* play fitting roles, thus the goal of matching personality to suitable occupations and fitting jobs.

The problems of the city, including youth choosing and finding a job, overwhelmed amateurs and required the attention of experts. Individuals with a special interest in helping youth to resolve the problems arising from poverty, vice, and alcoholism quickly professionalised the practice of benevolence by constructing scientific models and methods (Todd 1919). These models rested on a positivist epistemology, in contrast to the nineteenth century models that rested on a rationalist epistemology. Early twentieth century specialists viewed empiricism as the panacea for society’s ills, an objective method with which to advance social and political reform. The science of helping soon came to celebrate the idea of individual differences in abilities and personalities, in contrast to the quest for uniformity of character during the agricultural era. Rather than encouraging all people to develop good character and high morals, the new order promoted expressive individualism.

The growth of cities, along with the belief that education of all children is a public duty, had forced the broad recognition of individual differences. Traditional schoolroom teaching methods were designed for a select group of children who were uniformly taught the classics. These uniform methods failed when applied to a more varied population. The heterogeneous school populations in city schools included a wide distribution of economic groups and classes with great variation in pupils. School personnel soon concluded that variety was one of the chief characteristics of human nature (Thorndike 1911). This recognition prompted the child study movement (Davidson and Benjamin Jr. 1987) and led to the conceptualisation of a new life stage called adolescence (Hall 1904). One consequence was that school personnel and social workers in many countries around the world needed to design an innovative model for helping adolescents make vocational choices. Thus, in most countries, vocational guidance’s early development, especially from 1880 to 1920, typically arose from within either the educational system or social welfare organisations. For example, in Belgium, Germany, the United States, and the United Kingdom, vocational guidance was developed outside the school system. In countries such as the United States, vocational guidance was quickly assimilated into the

schools. Yet in other countries, vocational guidance services remained entirely outside the educational system. For example, vocational guidance in Belgium remained independent of the schools until 1947 (Sacré 1993). Regardless of whether the initiative arose in the educational or social welfare system, pioneers in each country used the scientific model of individual differences psychology to devise vocational guidance as a new counselling method for assisting youth to choose among their occupational alternatives.

The earliest antecedents to the eventual formation of modern vocational guidance that we could locate occurred in the last quarter of the nineteenth century. In 1871, Cestari working in Venice published a classification of occupations, occupational information, and a procedure for evaluating individual aptitudes. Lysander Richards of Massachusetts, in his 1881 book entitled *Vocophy, The New Profession: A System Enabling a Person to Name the Calling or Vocation One is Best Suited to Follow*, described a new profession to help youth choose jobs. In 1893, Marcotti working in Florence published a *Practical Guide for Choosing a Profession* that described the aptitudes and knowledge useful in different occupations and identified the best schools for preparing for a specific occupation. From 1898 to 1907, Jesse B. Davis (1956) provided education and vocational guidance to students in the 11th grade at Central High School in Detroit, Michigan. In 1907, he became principal for a high school in Grand Rapids, Michigan where he required English teachers to have students in the seventh grade write weekly reports on their occupational interests in hopes that these compositions would also develop character.

At the dawn of the twentieth century, vocational guidance personnel in Switzerland formed the first counselling organisation. This milestone occurred when Swiss employers, union officers, welfare workers, and school personnel formed an association to coordinate their efforts in orienting youth to the work world. Formed in 1902, the Association of Employers of Apprentices changed its name in 1915 to the Swiss Association for Vocational Guidance and Apprentice Welfare (Keller and Viteles 1937). In Paris, Lahy (1905) published a study of the vocational aptitudes required for success in stenographic work. In Japan, the first example of vocational guidance as a public activity occurred in 1906 when a labour exchange office was established at the headquarters of the Salvation Army.

The actual conception of vocational guidance in industrial era—and the origins of what is now referred to as the counselling profession—occurred in 1908 with events in Scotland, Germany, and the USA. Dr. Ogilvie Gordon of Aberdeen, Scotland—a palaeontologist and a civic leader—initiated vocational guidance services in Scotland and in England (Bloomfield 1914). Gordon pioneered what she called “educational information and employment bureaus.” During a Glasgow lecture in March, 1904 Gordon suggested that school boards establish bureaus to guide boys and girls into suitable employment after they leave school as well as supervise their careers as far as possible with “after-care.” With the collaboration of social workers from Glasgow, Edinburgh, and Dundee, Gordon in 1908 published *A Handbook of Employment for Boys and Girls* which became a model for other countries. Also in 1908, Scotland passed an Education Act that prepared the way for vocational advisory services and organised employment and information bureaus in close coordination with schools. That same year, the Edinburgh School Board funded a bureau to guide and advise

young people regarding their future careers (Gordon 1911). In May 1909, Winston Churchill, then President of the Board of Trade, introduced the Labour Exchanges Act in the House of Commons. The Bill aimed to help the unemployed find employment (Peck 2004). In Germany, Dr. Wolff opened a department for vocational counselling, with the aid of one assistant. On his own initiative, Wolff in 1908 notified the schools that he was willing to consult with information seekers, doing so at night in his office at the Halle Bureau of Statistics which he directed. He may have been the first to conduct follow-ups because he had his secretary record the advice given and check the progress of the youth he had guided. Wolff consulted with 27 individuals in 1908, 54 in 1909, 79 in 1910, and 104 in 1911 (Keller and Viteles 1937). He is credited with initiating Germany's movement for organised vocational guidance, which spread quickly to Munich, Pforzheim, and Düsseldorf. In 1913, the bureaus in Frankfurt and Berlin presented public motion picture shows about various occupations to prompt boys and girls to think about their future occupations, maybe the first use of audiovisual materials in vocational guidance.

One of the best documented stories of the origins of modern vocational guidance also began in 1908 (Brewer 1918). A Boston social reformer named Frank Parsons believed that the "City of Future" required specially trained personnel to help youth make vocational choices. He was supported in bringing this idea to fruition by a social worker named Meyer Bloomfield, a department store owner named Leonard Filene, and a wealthy benefactor named Pauline Agassiz Shaw. Rather than using the youth mentoring techniques of a friendly visit, Parsons urged that science be applied to the problem of self-assessment. Parsons coined the term "vocational guidance," using it in a report that he presented on May 1, 1908 about the systematic guidance procedures he had used to counsel 80 men and women in Boston. However, the profession of counselling marks its origin not to that report but to 1909 with the posthumous publication of Parsons' influential book on vocational guidance methods entitled *Choosing a Vocation*.

While practitioners in other countries had started earlier, Parsons is widely recognised around the world as the progenitor of the vocational guidance movement because his book stated the modern method of vocational guidance, based on the conceptual model of individual differences psychology. Today, the differential psychology model has evolved into person-environment psychology yet it retains the same three-step method of matching people to positions. First, individuals increase their self-knowledge using scientific tests; second, they gather occupational information; and third, they apply "true reasoning" in comparing self and occupations to make a realistic vocational choice. While not that different from Carlyle's formula, Parsons secured credit for initiating the modern movement for organised guidance by using the phrase "true reasoning" and emphasising the importance of scientific methods in self-analysis. For Parsons and his devotees, guidance occurs when science touches the individual. Of course, the individual differences conceptual model for guidance methods was quickly applied to selection of sales clerks for department stores and later to classification of soldiers into positions during World War I. These three services—vocational guidance, personnel selection, and military classification—were provided by the same personnel so that advances in one domain improved practice in the other two domains.

To make the first two steps of vocational guidance more scientific, Parsons consulted with leading psychologists of his day—including a pioneer of applied psychology named Munsterberg (1910)—about using psychometric measures and rating scales to study self and occupations. The key type of psychological test that sustained early vocational guidance as a science were measures of individual differences in ability, prompted by Binet's success in constructing an intelligence test for French school children. At first vocational guidance relied on these measures to profile the aptitudes or ability level required in particular occupations and trades. Early practitioners of guidance and selection in the USA, particularly those working at Carnegie Tech in Pittsburgh, contributed their expertise in the individual differences model of psychology to devising paper-and-pencil ability tests for military classification of armed forces personnel in World War I. When these applied psychologists returned to civilian life, their successful experiences in the war effort blossomed into an industry of making and selling ability and aptitude tests. Interest inventories began to be included in their assessment batteries when research on job satisfaction blossomed. The central idea was, and continues to be, that a fitting match of individual ability to job requirements leads to occupational success; while a fitting match of interests to job rewards leads to work satisfaction; and finally, that success and satisfaction combine to promote job stability or tenure. Success, satisfaction, and stability became the hallmarks of occupational adjustment and the criteria for evaluating the outcomes of guidance, selection, and classification. Today vocational guidance remains closely associated with tests of individual differences, its main technique being test interpretation. The epitome of this guidance technology is Holland's (1997) theory of vocational personality types and work environments.

While tests and their interpretation dominated the practice of vocational guidance, there have always been critics and alternative practices. For example, Harry Dexter Kitson at Columbia University and John Brewer at Harvard University emphasised Parsons' second step of gathering occupational information. Kitson and Brewer criticised over-reliance on test interpretation because of their concern about the weak predictive validity of ability tests and interest inventories. They encouraged the counselling profession to produce high quality occupational information resources and urged clients to engage in exploratory behaviour. Ultimately, they believed that vocational guidance personnel could help clients create interests through learning how various occupations enable them to express themselves and meet their needs. Kitson and Brewer asserted that guidance personnel should assist youth create vocational interests through social interaction and environmental exploration, not discover their interests by way of interest inventories. Theirs was an educative rather than a psychological perspective on guidance methods.

In the twenty-first century, vocational guidance remains a highly effective helping method for modern industrial societies that call for matching an individual's ability to job tasks. However, as should by now be clear, vocational guidance is unnecessary in an agricultural economy and, as will be made clear, insufficient in a high modern economy.

Career Development in Corporate Societies (1950–1999)

After World War II, many modern societies again broke with prior forms, as they had done in moving from agricultural to industrial economies. Although in comparison the tear in the social fabric was not quite so complete. Thus, the period from 1950 to 1999 is referred to as high modernity. While modern industries and their employees remained in the city centres, large numbers of workers moved to the suburbs from where daily they commuted to work. In addition to the emergence of suburbs, high modernity was characterised by growth of national and even multinational corporations. These hierarchical corporations distributed their labour force in the shape of a pyramid: picture a large number of labourers at the base, a substantial number of managers and white-collar workers in the middle, and a small number of executives at the apex. With this hierarchical structure came the image of the corporate ladder, each step up a rung involving more responsibility and pay. Rather than having one job for life, there arose the possibility of advancement and progressive improvement along an established job path within the company. Climbing the ladder became the metaphor for career, and career itself became the value that accompanied the bureaucratic form of hierarchical corporations. Following the conceptualisation of career as a value within a hierarchical society, Super's construct of work values (Zytowski 1994) and Maslow's (1954) hierarchy of needs emerged as signal constructs in vocational decision making.

The shift from company to corporation foreshadowed the shift in career counselling from the individual differences model and its guidance methods to a lifespan model and its developmental methods. Vocational guidance concentrates on matching person to position based on individual differences. Rather than differences between individuals, career development concentrates on differences within an individual across time. Centering on the person illuminated changes in people as they develop over the lifespan; while of course the tasks of a job remain pretty much the same. As a person changes, she or he may move to a better fitting job, and later yet move to still another job. Sociologists denoted such a sequence of positions as a *career*, meaning all the positions that an individual occupies from school leaving to retirement. After WWII, industrial sociologists such as Miller and Form (1951) studied these sequences in the lives of a large number of people. They identified seven fairly common combinations, which they called career patterns. These patterns became important in formulating a response to a vocal critic of vocational guidance at mid-century.

An economist named Ginzberg (Ginzberg et al. 1951) criticised vocational guidance counsellors for not having a theory and merely using a statistical technique for matching abilities and interests to occupational requirements and routines. Ginzberg's critique ushered in a theory building era in career counselling, one that replaced the empirical era of the first half of the twentieth century. Two major theories were prompted by Ginzberg's apt criticism, that of Holland and of Super. Holland's (1959) theory transformed the psychology of individual differences

focused on traits to one focused on types. Holland's six types (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional—RIASEC for short) are each composed of a syndrome of related interests, values, and abilities. Both individuals and environment can be assessed as to how closely they resemble each type. Matching vocational personality to work environment is eased by having both coded in the identical RIASEC language. So today, assessment for vocational guidance relies heavily on RIASEC methods of guiding.

The second major theory prompted by Ginzberg's critique was proposed by Super who in 1953 published his theory of vocational development and career patterns based on a model of lifespan psychology rather than individual differences psychology. Based on humanistic philosophy and a lifespan model, Donald Super (1953) crafted developmental methods for career counselling to complement the methods of vocational guidance that focus on the content of career choices. Developmental methods concentrate on how to make decisions, not on which occupation to choose. Super continued his theory building with a major treatise called *The Psychology of Careers*, published in 1957. Super often contrasted his book with Roe's *The Psychology of Occupations* published in 1956. He used the contrast to compare her focus on occupations to his focus on careers. The differences included a concentration on the individual rather than job tasks. More fundamentally, Super shifted attention away from occupations and which people fit them to a focus on careers and how people develop them across the lifespan. In contrast to guiding people to fitting positions, the goal of developing is to orient people to vocational development tasks and how to master them. Combining Super's developmental methods with Roger's (1942) client-centred counselling techniques, vocational guidance counsellors who provided direction to the lost were soon to become career development counsellors who served as process consultants and empathic mirrors to the anxious. As a symbol of the growing importance of career development interventions, a leading USA journal called the *Vocational Guidance Quarterly* changed its name to the *Career Development Quarterly*, yet not without objections from guidance specialists (Baer 1987; Weinrach and Holland 1987). The focus on developing careers also led to research programs on counselling process and outcomes (Brown 2017), and the practice of career coaching (Yates 2013).

Their conceptual models of individual differences and lifespan development provide two perspectives on the person; one focused on how people remain the same and the other focused on how they change. The differential model views vocational interests as traits that reside within the person and that can be measured with interest inventories. Vocational interests have moderate to high stability over time, showing substantially more continuity than personality traits (Low et al. 2005). In comparison, the lifespan model views interests as a relation between a person and an environment, going to the root meaning of *inter esse* which in Latin means *to be between*. From this perspective, interests are created by psychosocial interactions; they do not exist within the person as much as they emerge in interactions between the person and the situation. A change in social context may bring a change in vocational interests. A second example of distinctions between the models concerns vocational education and career education in the schools. Vocational education focuses on learning

the content of a trade, for example, automobile mechanic. Career development education focuses on learning attitudes and competencies with which to advance one's career. In the schools it is simply called career education and with adults it is called career coaching. In short, vocational guidance focuses on the content of occupations whereas career education focuses on the process of individual development. Their respective methods of guiding and developing may be used separately, sequentially, or integratively (D. Super 1983).

Later in the period of high modernity, career development theorists concentrated attention on the role self-concepts play in career development. In 1963, Donald Super formulated a self-concept theory in which he conceptualised occupational choice as implementing a self-concept, work as a manifestation of selfhood, and vocational development as a continuing process of improving the match between the self and situation. In 1981, Hackett and Betz formulated a self-efficacy theory of career development, subsequently elaborated in 1993 by Lent, Brown, and Hackett into a social-cognitive theory of interests, choice, and performance. The three major theories at the close of high modernity each were rooted in distinct psychological domains, with Holland's springing from individual differences psychology, Super's from lifespan psychology, and Lent, Brown, and Hackett's from social learning theory.

Self-Construction in a Global Economy (2000–2050)

Careers during the second half of the twentieth century remained possible because, while individuals changed and developed, the occupations and corporations in which they grew remained stable. Both life course patterns in general and work life trajectories in particular had become "institutionalised" because industrial jobs and corporate careers imposed strong discipline on the order and timing of transitions in work and family roles. However, by the dawn of the twenty-first century the bureaucratic structures that supported career development had become unstable as hierarchical corporations reorganized and downsized to adapt to the move from the high-modern corporate age to the post-modern information age. Gone were the meta-narratives of corporate institutions that enfolded workers in the holding environments that took care of them.

Early in the twenty-first century, social changes had become so substantial that they initiated a Second Demographic Transition from the *institutionalized* life course patterning of modernity to the *individualized* life course designing of post-modernity (Lesthaeghe 2010). Beginning with the 1978 oil crisis, post-industrial societies experienced the most rapid transformation in economic history. There was once again a social fracture, one that in many ways resembles the fault line of 1910 when Westernised populations moved from agriculture to industry and from rural communities to urban cities. In 2010, the parallel processes prompting the transformation from modernity to post-modernity were from industrialisation to digitalisation and from urbanisation to globalisation. The digital commerce enabled by the

internet has made information the new steel. Wealth creation no longer sprung from manufacturing; it now arises from distribution and financing. To cope with the rapidly changing world, companies maintain their flexibility by downsizing, outsourcing, flattening, and restructuring. Jobs are no longer viewed as the best way to get work done because they are uniform, content-based clusters of similar tasks. Today's projects and assignments are process-based clusters of diverse tasks that require temporary employees do the work that needs to be done.

Employees in the twentieth century enjoyed a *relational* employment contract that called for a reciprocal obligation between the individual and the organization based on long-term mutual loyalty. The twenty-first century *transactional* employment contract focuses on short-term efficiency in which both employers and employees act as businesses. The new employment contract calls for repeated adaptation and personal responsibility in constructing boundaryless, protean, and intelligent careers. In the twenty-first century, a bull's-eye symbolises the labour distribution brought about by the transactional employment contract. The centre ring is populated by internal workers, proportionately about 40%, who do the organisation's core work and have tenure. The outer ring of the bull's-eye contains about 20% of external workers who perform outsourced tasks. Between internal workers at the core and outsourced tasks at the boundary reside the remaining 40% of workers who are contracted to do temporary assignments for the organisation. Employers view these temporary workers as contingent, causal, and part-time employees who sell their services on short-term contracts or freelance agreements. They experience permanent job insecurity as well as lack the opportunities for training, development, and advancement formerly offered by organisations. For the standard jobs started by workers between the ages of 18 and 24, 69% ended in less than a year and 93% ended in fewer than 5 years. This was true not only for emerging adults but also for those adults who in previous times had stabilized in jobs and families. Among jobs started by 40–48-year olds, 32% ended in less than a year and 69% ended in fewer than 5 years. (Bureau of Labor Statistics 2018). We do note that careers in bureaucratic organisations still exist for many people. Nevertheless, we have entered the age of insecure workers who are no longer bounded by a single organisation or grounded in the same job for three decades. The new employment market includes a “gig economy” that calls for viewing career not as a lifetime commitment to one employer but as selling services and a portfolio of skills to a series of employers who need projects completed.

Individualisation is seen as the core characteristic of post-modern societies that have de-standardised jobs and de-institutionalised life course patterns. During the current Second Demographic Transition, individualisation of the life course has made entry into adult roles more variable, less stratified by age, and taking more time (Lesthaeghe 2010). Life has become less predictable, less regulated, less stable, and less orderly. Post-modern social structures make it difficult, and even unwise, for individuals to commit to institutions and organisations. Instead individuals must commit to self-chosen trajectories. Twenty-First century institutions provide less structure and assign people the responsibility for understanding their own needs, determining their goals, designing their lives, managing their careers, and defining

the meaning of success. The twentieth century's standardised jobs and institution-alised life course has transformed into customised work roles and an individualised "biography of choice" (Heinz 2002). In shaping their own life course, individuals must reflexively weigh alternatives, coordinate outcomes, and repair failures.

Individualisation of the life course calls for a career counselling model that describes unique decisions rather than prescribes normative choices. The prescriptive methods of guiding based on the individual differences model and developing based on the lifespan model both remain useful in many circumstances, yet they do not adequately account for managing careers in the uncertain and changing occupational structure of post-modernity. A twenty-first century model for career counselling must address emotions of uncertainty and anxiety experienced by insecure workers as they adapt to multiple job changes and a series of new beginnings in what Bauman (2017) called a "liquid life." To devise such a model, some counsellors first adopted a social constructionist epistemology (Young and Collin 2004) and then used it to devise a *life-design model* for career counselling (Savickas et al. 2009). The life design model addresses the twenty-first century question of "How do you want to be?" instead of the twentieth century question of "What you want to be? Rather than choosing an occupation at the end of schooling and then developing a career in a stable medium for 30 years, workers must now develop and use the meta-competencies of identity and adaptability (cf., Hall 2002) in a lifelong quest to construct their best possible future.

In addition to concentrating on identity and adaptability, the life-design model offers a new metaphor of career as story, rather than career as path. In this model, career is the story that people tell about their work lives. The autobiographical narrative provides a stabilising meaning for internal guidance and self-direction during times of transition. The story fosters biographical reasoning that enables an individual to impose unity of purpose on transitions so as to turn jarring juxtapositions into coherent syntheses.

The life design model leads to constructionist methods that impose meaning on vocational behaviour. Influential books on the life design model and career construction methods have been published since 2011 in Australia (McIlveen and Schultheiss 2012; McMahon 2017), France (Guichard et al. 2017), Italy (Di Fabio and Maree 2013; Nota and Rossier 2015), South Africa (Maree 2013), and the USA (Busacca and Rehfuss 2017; Savickas 2019). Career constructing methods assume that people use stories to organise their lives, shape their identities, and make sense of their problems (Savickas 2013). Clients enter counselling with a story to tell about some transition. The stories people tell have a way of taking care of them. By holding those stories in the relationship, counsellors enable clients to reflect on their lives. Dwelling in their own stories often destabilises and deconstructs old ideas that block decision making and usually enables an awareness that prompts a choice. As clients give voice to their stories, they hear what they already know and find the answers which they seek. From their own knowing, clients take a new perspective that enables them to reconstruct their stories to define who they are, set priorities, clarify choices, articulate intentions, devise a plan, and take agentic action in pursuit of a life that they want to live (Savickas 2016).

Of course, counsellors recognise that clients' capacity to construct their careers is not completely free; each person pushes against the unchosen conditions of their life. There are normative boundaries and social constraints that both precede and exceed the client. Yet a client must improvise and construct a career with the available resources and social supports. Counsellors help clients make commitments to self and then choose the best possible solutions. Sometimes, or maybe all the time, client choices are about progress not perfection. Counsellors may differ in their preference for the counselling methods of guiding, developing, or constructing. Yet counsellors agree in their commitment to social justice, beginning with vocational guidance counsellors who began the field as child saving, continuing with career development counsellors who work to defeat pernicious stereotypes and circumvent negative circumstances, and now career construction counselors who deconstruct clients' limiting ideas and false beliefs. In the last decade, counsellors have become more active outside the consulting room as they advocate for social justice, engage in public policy discourse, and address the needs of vulnerable workers who face discrimination and marginalisation (Duffy et al. 2016).

Conclusion

Contending effectively with the ambitions of diverse workers in a globally integrated economy requires that the career counselling profession understand its own ambitions. The future of the profession rests on counsellors' ability to help students and clients adapt to the challenges inherent in the new organisation of work in liquid societies. The profession has successfully met the challenge of social transitions before in devising youth mentoring for agricultural communities, vocational guidance for industrial cities, and career development counselling for corporate societies. To remain relevant and useful in the twenty-first century, members of the profession are again reinventing its models and methods, this time concentrating on how to fit work into life, rather than fit life into work.

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Chapter 3

Major Career Theories: International and Developmental Perspectives



Cindy L. Juntunen, Thomas C. Motl, and Matthew Rozzi

Abstract This chapter examines international and developmental issues in career and vocational guidance through three major theoretical perspectives: person-environment fit theories, self-concept theories, and theories of career decision-making and social learning. After briefly presenting the historical context and origin theories of each of these three broad schools of thought, the chapter identifies key scientific support for the application of the theories across the lifespan based on contemporary evidence and current state of theory. Research, interventions and theoretical contributions from international scholars are included, and the global impact of the theories are discussed. The chapter also identifies areas that require additional attention by career and vocational researchers, and emphasises the value of adopting a “cradle through career” approach to career theory and research.

Keywords Person-environment correspondence · Career decision-making · Self-concept career theories · Social learning career theories · Lifespan career development · International vocational research

There exists great complexity and diversity in the career and vocational theories developed since the early twentieth century, as evidenced by the chapters in this volume. Yet it is also true that many of the applications and theories of contemporary career guidance are anchored in one of several major schools of thought that have shaped the development of the field: person-environment correspondence theories, developmental and self-concept theories, and career decision-making and social learning theories.

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Basic Tenets of Major Theoretical Categories

Person-environment correspondence, or fit, theories share a number of common ideas. Key among them is the assumption that individuals have characteristics or vocational personalities (Holland 1997) that are particularly salient for work, and that these characteristics will match more or less effectively to the various environments or demands created by different types of work. The theories we will use to more fully explore these concepts are Holland's theory of vocational personalities (1959, 1997), the Theory of Work Adjustment (Dawis 2005; Dawis and Lofquist 1984), and Values-based Career Theory (Brown 1995). As described in greater depth below, these theories posit that an increased correspondence between the person and the environment will lead to increased vocational satisfaction. Therefore, a key aspect of helping people obtain satisfying work lies in ensuring that they select jobs or working conditions that are a good fit for their vocational personalities, worker characteristics, and values.

The focus of self-concept career theories is the developmental processes and experiences that lead to a stable sense of one's self in the role of worker (Super 1990), with recognition that the social and developmental context interact in this construction of the self (Savickas 2013). The emphasis of early theories in this category was on the stages of development through which individuals mastered tasks that were relevant to various life roles, including that of work (Ginzberg et al. 1951; Gottfredson 1981; Super 1954). In this chapter, we will explore Super's (1990) life-span life-space approach in more detail, as it has been one of the most influential career theories around the globe. The contemporary application of self-concept theory will be explored via career construction (Savickas 2013) and life design counseling (Savickas 2015), which emphasise lifelong adaptability and interactions between the individual and the changing social context.

Career decision-making and social learning theories emphasise the constant feedback and interaction between the individual and their social environment, with a particular emphasis on the factors that contribute to the development of vocational interests, self-efficacy, and choices. Career decision-making is the general term for those individual choices that guide one's work-related behaviours and orient individuals to the world of work. These decisions occur throughout the lifespan and include both spontaneous and planned behaviours. In general, theories that focus on career decision-making examine the processes by which decisions are made, so that counsellors can better guide clients toward fulfilling work experiences. We will explore concepts related to vocational decision-making through examination of Career Decision-Making Self-Efficacy (CDSE; Taylor and Betz 1983), Social Cognitive Career Theory (Lent et al. 1994), and Happenstance Learning Theory (Krumboltz 2009) as they relate to challenges across the lifespan.

One thing all of the aforementioned theories have in common is that they originated in and are inherently shaped by the cultural norms of the United States. Further, these major career theories have also been critiqued as most reflective of dominant culture groups within the United States, including White, male,

heterosexual and economically secure individuals (Leong and Brown 1995; Leong and Pearce 2011). It is certainly true that these theories are being applied in international contexts, as we will explore more fully below. In addition, international vocational research is increasing more dramatically than research examining other cultural factors among leading vocational journals in the United States (Garriott et al. 2017). However, it is also essential to recognise that the practice and theory of career guidance is influenced by the cultural, socioeconomic, and political nature of the countries in which it is practised and studied (Vera and Jimenez 2015). Hopefully, the increased interest in recognising international applications of vocational theory will also lead vocational researchers to develop and attend to indigenous theories of vocational psychology (Leong and Pearce 2011).

Implementation Across the Lifespan

It is possible to organise the extant research in these major career theories in a variety of ways, in order to best identify the coverage, and the gaps in coverage, of international career guidance. In our review of the literature, it became apparent that age was a major factor in the research questions posed and samples selected for studies that involved these theories. Further, adopting a lifespan or developmental approach provides an opportunity to direct attention to the different kinds of models or approaches that are likely to be more or less useful with different clients or lend themselves more effectively to research questions.

The usefulness of a lifespan approach is also supported by several recent trends in educational and psychological literature relevant to vocational guidance. First, the career-related activities of young children are increasingly addressed in both theoretical and empirical literature. In the last 10–15 years, an emphasis on “cradle-to-career” development (Editorial Projects in Education Research Center 2007) has emerged in education. The cradle to career focus brings increased attention to the vocationally-relevant activities of preschool (Haslip and Gullo 2018) and elementary school children around the world (Buzzanell et al. 2011). Although vocational and career psychology has lagged in its attention to children, recent advances in the field have led some to be “cautiously optimistic” (Watson et al. 2015, p. 177), and we hope to emphasise that literature which does exist.

A second developmental evolution of note is the conceptualisation of emerging adulthood (Arnett 2000), which has been integrated into contemporary career and vocational research in several countries (Kim et al. 2017; Shulman et al. 2014; Viola et al. 2016). Noting the influence demographic and social changes have had on the entrance to adulthood, Arnett noted that the period of 18–29 years of age has increasingly become the “time of life when many different directions remain possible (Arnett 2000, p. 469).” Vocational and career decisions and changes are certainly within this realm of possible directions, as work is identified, along with love and worldview, as one of the three main aspects of emerging adulthood exploration (Arnett 2000; Shulman 2017).

Finally, career transitions throughout the adult and older adult life stages are increasingly relevant due to significant changes in global economies and the nature of work (cf Van der Horst et al. 2017). Career transitions are often identified as negative and stressful events, but positive opportunities can also emerge from adult career transitions (Jome 2016). Additionally, some individuals seek out career change because they are looking for new challenges (Jiang et al. 2018). In older adult life, career transitions can be related to preparation for retirement or, increasingly, employment after retirement (Beehr and Bennett 2015; Kim 2014; Kojola and Moen 2016). The dynamic nature of work during adulthood is relevant around the globe and has increasingly been addressed by international vocational scholars.

The remainder of this chapter will present essential introductory principles of the three major approaches to career development, organised by their applicability across the lifespan. Illustrative extant literature will emphasise international studies and application of specific theoretical tenets within these major theoretical approaches. The chapter will conclude with suggestions for future research and further expansion across international and cultural groups.

Person-Environment Correspondence Theories

Holland's theory of occupational types is one of the best known and most well-established (Ott-Holland et al. 2013) theories in vocational psychology. Over 50 years of clinical use and research suggest that Holland's work is useful and valid for both practitioners and researchers. Holland, striving for a theory that was useful and elegant to encourage use by counsellors and clients (Nauta 2013), suggested that individuals and the environments in which they work can be understood and given "types" according to a six-factor model. These six personality types include realistic (R), investigative (I), artistic (A), social (S), enterprising (E), and conventional (C). Individual behaviours can be determined by the interaction between personality type and environment type (Iliescu et al. 2013). Specifically, Holland suggested that for each individual, a rank-order of each type could be completed and the resultant six letter code could describe the person. To simplify application, most practitioners use a three-point code (called a Holland code) to describe a client (Nauta 2013), in which the first letter is considered a person's primary type. Similar to the way an individual can be classified, work environments can also be classified using the same typology that results in three-point Holland codes for different types of jobs or work.

Four principal constructs related to the way the person's types relate to other types and with the environment include: congruence, differentiation, consistency, and identity (Holland 1997). Congruence refers to the degree of fit between the RIASEC codes of an individual and his or her work environment. If a person has a Holland code similar to that of the work environment, it is believed that there is congruence. Differentiation refers to how clearly a person endorses one type over another or how well an environment matches one type over another (Holland 1997).

People with very differentiated interests may have a more restricted range of occupational interests with which they are congruent. The same holds true for work environments, in that highly differentiated settings may appeal only to a select few individuals and less differentiated settings may be more attractive to a large number of people with more diverse interests.

Consistency is a key construct when exploring Holland's theory from an international perspective, and refers to how much an individual's dominant types have in common with each other. Holland's six types have traditionally been placed into a hexagonal model (RIASEC) in which types that are adjacent to each other have more in common with each other than types that are farther away. Much of the modern literature exploring Holland's theory with different international populations has explored whether the hexagonal model continues to hold this basic structure. A unifying question of this research body is whether the types and their structure are an artifact of Western culture or whether the model reflects a universal meaning across multiple populations.

Finally, identity refers to how stable and coherent a person's goals, interests, or talents are (Holland 1997). Identity is assumed to emerge as differentiation and consistency increase. Holland (1997) posited that clearly differentiated and consistent career identity would contribute to effectiveness in the workplace and satisfaction with work.

Job satisfaction is also a key outcome in the Theory of Work Adjustment (TWA; Dawis and Lofquist 1984), as is satisfactoriness. TWA is based on the concept of a reciprocal relationship between workers and the work environment (Swanson and Schneider 2013), and is concerned with how people's needs are met by the work environment (satisfaction) and how well they fit with the environment (satisfactoriness). There may be correspondence or dis-correspondence with either satisfaction or satisfactoriness. In other words, employees may be satisfied with work conditions, but not be deemed satisfactory by the employer or vice versa. In a situation demonstrating correspondence, both employee and employer are either satisfied or dissatisfied.

TWA proposes four personality styles that attempt to capture how a worker responds to work as follows: *celerity*; *pace*; *rhythm*; and *endurance* (Dawis and Lofquist 1984). Recently, Bayl-Smith and Griffin (2015) created a measure of work styles, known as the *Active Work Style Scale* which operationalizes the dimensions proposed in Dawis and Lofquist's four factor model of personality styles. Results from their research suggest that these factors may be "sensibly related and distinct constructs" (p. 141). However, they may be best understood as connected through a higher order factor—an "active work style that describes a person's generalized level of work activity and effort..." (Bayl-Smith and Griffin 2015, p. 141).

TWA has two major models—a predictive model and a process model. Within the predictive model, a major tenet is that people have only two choices in a work environment: change themselves to fit the environment or change the environment to fit themselves (Swanson and Schneider 2013). Maintenance behaviour is a worker's behaviour that is intended to maintain person environment fit. Adjustment behaviour revolves around an individual making changes to their behaviour in order

to change the interaction of person-environment fit. Tenure is the amount of time a person stays in a particular position and may be influenced by both maintenance and adjustment behaviours.

The process model focuses on how adjustment happens and how people maintain a state of “harmonious equilibrium”—a state in which satisfaction and satisfactoriness are achieved (Swanson and Schneider 2013). Individuals have “adjustment styles” consisting of four constructs as follows: flexibility; active adjustment (or activeness); reactive adjustment (or reactiveness); and perseverance (Dawis and Lofquist 1976). Flexibility is how much dis-correspondence a worker will tolerate before beginning to use adjustment behaviour. Active adjustment is when an individual will proactively attempt to modify the work environment. Reactive adjustment is when an individual will try to change themselves to fit the environment. Perseverance is the amount of time a person will employ active or reactive adjustments to bring dis-correspondence to a tolerable level of equilibrium.

A major contribution of the TWA is the development of several robust measurements that have been widely used to assess an array of work characteristics. One of particular value is the *Minnesota Importance Questionnaire* (MIQ; Gay et al. 1971). The MIQ addresses six key values emphasised in TWA, along with the needs associated with the values. In this context, needs are defined as the reinforcing conditions of the workplace that are necessary for job satisfaction (Gay et al. 1971). The values included in TWA are achievement, comfort, status, altruism, safety, and autonomy (Dawis and Lofquist 1984). Achievement refers to feeling a sense of accomplishment. Comfort relates to not feeling stressed. Status refers to holding authority or gaining recognition from others. Safety revolves around a stable and ordered environment. Altruism revolves around being of service to others. Autonomy is having a sense of ownership and control of one’s actions. By identifying values and needs as essential components of job satisfaction, TWA moved person-environment fit theories into a more holistic approach that extends beyond purely work and person typology match.

Values-based career theory (Brown 1995) was developed as an acknowledgement of the indispensable function individual and cultural value systems play in vocational selection and development. Values are primarily cognitive structures but have both behavioural and affective components. The progenitor of the theory, Brown (1995, 2002), has outlined a number of other factors that have immediate bearing on career-trajectories, such as gender, socioeconomic status and discrimination, but placed work-values as the cornerstone of the theory. Work-values are personal values that, based on enculturated beliefs, an individual believes should be satisfied as a result of the work role (Brown 2016).

During adolescence and into early adulthood, individuals crystallise and prioritise their work-values. Crystallisation is the ability to articulate and apply work values to personal behaviour. Prioritisation is the ability to rank the importance of competing values. Once set, these values are relatively stable over time. Clarified and prioritised work-values provide direction for both proximal and distal goals, and supply meaning to labour (Brown 2002). Thus, one of the primary tasks of a career counsellor functioning from this orientation is to help the client articulate crystallised and prioritised work-values.

Values-based career theory is considered a person-environment fit model because the congruence between a job and prioritised work-values is the primary predictor of vocational choice, as well as work satisfaction and success (Brown 2016). Given the inherently culture-bound nature of values, values-based career theory has been easily and explicitly adapted for diverse cultural groups. Brown (2002) outlined a number of propositions to describe how cultural values, work values, career decisions, and work satisfaction interact. Primary sociocultural values, such as time orientation (e.g., past, present, circular), self (e.g., being, being-in-becoming), and social relationships (e.g., collectivistic or individualistic) influence the formation and influence of work values in one's life. For example, collectivistic or individualistic social values mediate the way in which work-values are brought to bear on career decisions. Those from an individualistic background will feel unconstrained to pursue prioritised work-values provided there is an available avenue to do so. For these individuals, personal and economic factors and self-efficacy may play constraining roles. Those from a collectivistic background will defer or be heavily influenced by the wishes of the group, resulting in a decision that is less aligned with the idiosyncratic work values than those who value social individualism. For these individuals, gender is likely to become a major factor in career choice, and expectations of discrimination are likely to be highly influential.

Brown (2002) is careful to note that counsellors practising from a values-based perspective should realise that “there is considerable diversity within the values systems of people from the same cultural groups and extensive overlap in the cultural values held by people from different cultural groups” (p. 49). As such, it is important to appraise individual values systems, and develop a rudimentary knowledge of the dominant values systems in various cultures. To measure sociocultural values, Brown (2016) recommends a culturally-sensitive interview, perhaps combined with an instrument to measure cultural values. Career guidance techniques or measures are often drawn from other person-environment fit theories, such as Holland (1997), but such information is always interpreted in the context of a broader, values-based framework (Brown 2016).

Person-Environment Exploration in Childhood and Adolescence

Nauta (2013) suggested that counsellors can use RIASEC language and research to help children explore rather than narrow possible vocational options. She argues that interventions with younger people can introduce them to the concepts that will help them learn to think about personality types and work environments in a new way giving them scaffolding with which to build further self and occupational knowledge. This suggestion is consistent with the findings of Low et al. (2005), who conducted a meta-analysis of vocational interest stability studies and concluded that “a more purposeful approach to the vocational interests of elementary and middle school students (p. 728)” was warranted.

An elementary classroom intervention implemented in Canada provided initial information about the potential impact of purposeful attention. In a project that involved 555 elementary students in 25 classrooms, ranging from grade 1 through 6, researchers found that career exploration activities could be integrated with classroom experiences in a way that increased student career awareness (Welde et al. 2016). Multiple interventions were utilised, including discussion of Holland codes and several activities designed to identify interests and increase awareness of different job types. At the end of the experience, 69% of the students reported they had learned more about themselves, 77% reported they had learned more about work, and 81% reported they were excited about what they had learned through career education.

In a study conducted with 120 elementary and middle school children in Italy, Ferrari et al. (2015) found that, among children at both levels, career exploration predicted occupational knowledge in several of the Holland types. Interestingly, the younger children appeared to have as much occupational knowledge as the older children. Gender differences were also observed in this study; girls and boys had the same levels of occupational knowledge, but girls perceived themselves to have lower levels of knowledge than the boys did. The authors concluded that intentional career exploration activities are valuable for elementary and middle school children.

In a study that included individual and focus group interviews of 267 children in China, ages 3–10, children's career interests were found to be influenced by several sources (Buzzanell et al. 2012). In addition to typical influences such as parents, friends, and school environments, these authors found that children's interests were also impacted by non-human agents. Social media, extracurricular activities, and testing experiences all had an impact on children's interest development. The authors found that even the very young children in this study had learned to think about the symbolic value of work.

Adolescents' work values and interests have been found to be related to one another (Rottinghaus and Zytowski 2006). Gender effects in work values have been found in samples of Finnish (Sinisalo 2004) and U.S. adolescents (Weisgram et al. 2010), highlighting the significance of the interaction between culture and gender in work-value development. The shifting landscape of the world of work creates some difficulty for practitioners looking to match individual values to vocations. Loughlin and Barling (2001) point out that, when counselling adolescents, career counsellors should not foster the idea that many jobs will stably meet the value-needs of an individual. For example, non-standard (i.e., temporary, part-time or contract), work is on the increase in many fields and in many countries, so shifting work environments and commensurate pay instability will likely be a factor. Practitioners of values-based career theory must account, therefore, not just for cultural variation in values, but the disparate and quickly changing socioeconomic realities inhabited by clients.

Person-Environment Fit and Emerging Adulthood

In their meta-analysis of studies completed with samples from the US, Low et al. (2005) found that RIASEC profiles remain stable through most of adolescence, but also increase significantly in stability once individuals reach college age. After college, profiles remained stable for the next 20 years. More recently, Hoff et al. (2018) found that individuals in the US tend to go through similar developmental stages. The early teenage years are marked by the largest interest disparity between genders. In later adolescence and adulthood interests become increasingly similar between men and women. Interests having to do with other humans also begins to increase in early adolescence into adulthood.

Iliescu et al. (2013) reviewed the RIASEC structure with a sample of 1519 Romanian individuals in three age groups: high school, college, and working adults. They compared the classic hexagon to alternative hierarchical structures using frequency analysis, randomisation test of hypothesized order relations, and structural equation modeling. The authors found support for the RIASEC with college students and working adults, but not high school students. . Nagy et al. (2010) used a sample of 3831 Germans in their final year of high school to perform randomization tests of order relations. They found that Holland's original model was the best fit for the data when compared to either of the two competing hierarchical models proposed by Gati (1979) or Rounds and Tracey (1996).

Several additional modern studies have found goodness of fit between the RIASEC model and a variety of international samples. Morgan et al. (2015) explored the fit of the hexagonal model with 985 South African university students in one study, and another 175 in another study in their attempt to create a *South African Career Interest Inventory*. Their work suggested that the use of the traditional model in South Africa may be appropriate. Sidiropoulou-Dimakakou et al. (2008) tested the goodness of fit of Holland's hexagonal model on 156 Greek university students. Again, the researchers provided evidence for the goodness of fit of the classic model with the structure of vocational interests of the sample population of Greek students. Likewise, Vardarlı et al. (2017) found similar evidence for the goodness of fit with samples of high school students (n = 605) and university students (n = 359) in Turkey.

Fonteyne et al. (2017) created a new Holland-based interest inventory specifically for the population transitioning from secondary school to university or vocational education. They used data from 3962 Flemish students in both academic and vocational track programs to explore the researcher's *Study Skills and Interest Monitor* (SIMON) interest measure. The researchers suggest that individuals in this transition period (17–18-year-olds) from high school to university study or vocational training may have limited ability to self-report vocational interests because of their lack of knowledge about how the adult world of work is organised. As such, they found it important to use language in the assessment that the students would

know and understand. The measure demonstrated evidence for the goodness of fit with the traditional Holland model, evidence for construct and criterion validity, and support for use in vocational counseling.

Not all research with international adult samples has found support for the RIASEC model. In a study examining archival data from almost 400,000 individuals across 20 countries, Ott-Holland and colleagues found modest support for weaker relationships than expected between personality and interest in more collectivistic societies (Ott-Holland et al. 2013). They argue that as collectivistic behavior increases, career decisions may involve more exploration of family and social expectations than individual traits and interests, and caution that U.S. based psychological literature assumes an individualism that may not translate to the rest of the world.

Swanson and Schneider (2013) suggest that individuals who are struggling with their work or feeling dissatisfied may be targets for TWA interventions. As TWA speaks directly about satisfaction and satisfactoriness and how these constructs can become unbalanced, it is well suited to address these concerns. Swanson and Schneider (2013) specifically address the dearth of research of TWA on diverse populations. Much of the modern literature is focused on TWA within diverse populations in the United States and how variables such as race (Lyons et al. 2006) and sexual minority status (Velez and Moradi 2012) may moderate the traditional model.

Velez and Moradi (2012) note that for LGB individuals, LGB supportive work environments were linked directly with the fit of the person with the organisation and turnover intentions. The researchers note that counsellors can help to push for discussions of workplace climate within an organisation to improve conditions and use sexual orientation identity management strategies. They caution, however, that only 21 states and Washington DC have laws prohibiting employment discrimination. Therefore, workers and counsellors need to be aware that employers could potentially legally discriminate if such concerns are raised.

In a study exploring whether racial climate had a moderating relationship between job fit and job satisfaction among a sample of 204 African American employees, Lyons et al. (2006) found no evidence for such a relationship. They suggested that work values, rather than racial climate, may play a larger role in work satisfaction for African American employees. Eight years later, Lyons et al. (2014) revisited the question of racial climate moderating job satisfaction and turnover intention, and concluded that their results from the 2006 study may have been influenced by socioeconomic status. Among African American participants who were financially distressed, the authors did conclude that there is evidence for racial climate being an important factor in job functioning of economically distressed African Americans.

As with TWA, there is little empirical validation of values-based career counseling with international populations. However, a number of studies have confirmed the importance of values in securing meaningful work (Dik et al. 2009), as well as the role of values in the career exploration process across the globe and across the lifespan (see Super et al. 1995 for a review). In general, though, the importance of

values-based career theory may lie less in its ability to develop specific testable hypotheses, and more in the directness with which it confronts and incorporates culture-bound variables, such as values, gender, and discrimination.

Person-Environment Fit in Older Adulthood

There is a growing body of research related to adjustment as it relates not to workers and the work environment but to workers adjusting to a transition out of the workforce. Both the transition of older adults moving through the workforce as they age and workers transitioning into retirement have been of interest to researchers. Notions of retirement are shifting rapidly, and this phase can take a variety of forms, including a step-down in work hours (e.g., part-time employment with the same employer), bridge employment, voluntary work, self-employment, or full labor-force withdrawal (Shultz and Wang 2011).

Wong and Earl (2009) argue that the greying of America will result in a large number of workers transitioning into retirement and that this process is a critical phase of the life-work cycle. They note that research on older adult transitioning has typically revolved around only health and income variables; however, a number of psychological variables are salient to older adult and retiree adjustment. The researchers collected survey data from 394 retirees and found that better psychological health, higher income, and being married were all factors influencing positive adjustment to retirement. Houlfort et al. (2015) tested a model where passion for work predicted positive adjustment to retirement and found supporting evidence using a sample of 103 French-Canadian retirees.

Hesketh et al. (2011) created a Retirement Transition Adjustment Framework (RTAF) based on the work of Dawis and Lofquist's TWA. They point out that previous research has explored retirement as a singular event rather than a process or continual phase. In their framework, they build on TWA by modifying the concept of "tenure" as the successful outcome measure into retirement by using "positive aging" as the new successful outcome measure in retirement. In positive aging, the success at managing the aging process includes both satisfaction and performance (coping performance) which links with TWA's satisfaction and satisfactoriness dimensions. Their results suggest that TWA has applicability for individuals beyond retirement.

In their studies on the construct of mattering, Froidevaux et al. (2016) found that, for their sample of 161 older workers, feelings of mattering was positively connected with perceived life satisfaction. Mattering was defined as "a person's perceived social contribution" (Froidevaux et al. 2016, p. 58). For their sample of sample of 186 retirees, they found that mattering mediated the relationship of social support and positive affect, but not life satisfaction.

Noting that the relationship between work values and retirement had yet to be studied in the literature, Wöhrmann et al. (2016) examined how four work-value domains—self-transcendence, self-enhancement, conservation and openness to

change—predict post-retirement intentions among 1071 German workers. Results suggested that self-transcendent values were related to all forms of post-retirement work assessed: voluntary work, same-employer paid work, other-employer paid work, self-employed paid work. Conservation values were inversely related to voluntary post-retirement work, and openness to change values were inversely associated with maintaining any form of work with the same employer and more likely to engage in voluntary work.

Career Self-Concept and Developmental Theories

One of the first vocational theories to have a significant international influence evolved into the life-span life-space approach developed by Donald Super (1990). In 1951, Super introduced the idea of self-concept as part of vocational adjustment. He subsequently proposed that career development was a process that evolved through a series of life patterns (Super 1954), and included international examples in this initial description of his theory. The Life Career Rainbow (Super 1990) provided a developmental model that identified specific stages of career transition occurring from childhood through retirement, building on the developmental stage theory earlier proposed by Ginzberg et al. (1951). Across the course of life, Super proposed that individuals engage in multiple life roles as follows: child, pupil/student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner (or retiree). These roles varied in importance by age and also were more or less salient depending on the developmental career stage of the individual. The major career stages included growth, exploration, establishment, maintenance, and decline (later called disengagement). Although conceptualised as occurring sequentially, Super was equally adamant that all stages could be repeated and recycled as individuals encountered changes or made decisions to change their career course (Super 1990).

Important developmental tasks are encountered during each career stage. During the growth period, the young child's tasks include developing curiosity and engaging in fantasy, which were posited to lead to the development of interests and abilities. During the exploration stage, the critical tasks of crystallising, specifying, and implementing occur. Successful resolution of these tasks, which typically occur during adolescence and emerging adulthood, allow the individual to first explore then narrow down and eventually implement a career choice. This process results in vocational maturity (Super 1955, or the readiness to respond effectively to developmental tasks related to vocation. Super later suggested that career adaptability (Super and Kidd 1979) more accurately captured the recurrent nature of responding effectively to tasks and challenges throughout adulthood.

The establishment stage marks the early stages of a career and the initiation of adult roles such as partner and parent. The tasks during this stage include stabilising, consolidating and advancing. This is followed by the maintenance stage, during which more senior workers might be holding their position and may also need to

update or innovate in order to maintain their work role. Finally, the disengagement stage is typified by the developmental tasks of decelerating, retirement planning, and retirement living.

The establishment of the Work Importance Study in the late 1970s involved researchers in 14 countries focused on identifying the commonalities and differences in the salience, or importance, of work across national borders (Super 1982). This project resulted in a vigorous assessment approach, several measurement tools that continue to be used internationally (e.g., Balsamo et al. 2013) and a collaboration of scholars that paved the way for the internationalisation of vocational and career guidance (Savickas et al. 2005).

Carrying on in that tradition, Career Construction Theory (CCT; Savickas 2013) may be the dominant theory in contemporary international and multi-national vocational research. Adaptability is the central concept in career construction theory, as development is framed as a series of adaptations to the social environment which has the ultimate goal of person-environment integration. Integrating attitudes, beliefs and competencies relevant to the process of adapting, Savickas articulates four constructs of adaptability, all emerging from the root “to adapt” (Savickas and Porfeli 2012). Being willing (adaptive) and able (adaptability) to behave in ways that are responsive to changing conditions (adapting) will lead to a successful and satisfying fit (adaptation). Individuals actively engage in developing adaptability, through the development of four resources. These four resources are concern for the future, control through self-discipline and effort, curiosity about one’s possibilities, and confidence to pursue goals and aspirations. These components have been rigorously assessed in a multi-national scale development study (Savickas and Porfeli 2012), after which the authors concluded that the *Career Adapt-Abilities Scale* (CAAS) “measures the same constructs in the same way across countries (p. 670).”

A meta-analysis that included 90 studies, conducted in numerous countries, found substantial support for the continued use of the CAAS (Rudolph et al. 2017). The authors concluded that career adaptability is related to but distinct from personality traits, such as the Big Five. They found adaptability to be positively related to career exploration, career planning, and self-efficacy in both career decision-making and occupational self-assessment. Interestingly, career adaptability was also found to be related to objective outcome measures, including job income. Finally, the authors found positive associations between career adaptability and well-being; surprisingly, they did not find a consistent association between adaptability and job satisfaction and identified this as one of several areas that would warrant future research.

The construction aspect of CCT emerges through the sharing of the narrative of the individual’s career story with a career counsellor, who can serve as the audience and allow the individual to self-reflect and self-examine, thereby gaining more understanding of their own experiences (Savickas 2013). Narrative is a powerful aspect of CCT, because it allows the individual to address developmental, personality, and motivational factors of career development in a holistic manner. The accompanying counseling approach, Life Design Counseling for Career Construction (Savickas 2015), lays out specific steps of construction, deconstruction, reconstruction and co-construction

through narrative processes in counseling. Through this process, the client will be able to make sense of their concerns and construct ways to address them through greater adaptability.

Career Maturity and Adaptability in Childhood and Adolescence

Eight fifth-grade children and their parents, living in China, were interviewed about the factors influencing their career interests (Liu et al. 2015). Parents communicated values of education and high expectations for social status. Children demonstrated active, rather than passive, engagement with their parents, by “making sense” (p. 141) of parental values and input. In this way, children and parents may be constructing a career narrative for the child. The authors cautioned that this narrative may result in some foreclosure due to the parental emphasis on status and success.

The relationship between career maturity, school satisfaction, and subjective well-being was examined among 224 middle school boys in South Korea (Ham and Lim 2017). Following a short-term group counselling intervention, which addressed career exploration, self-awareness, and other career planning topics, the boys demonstrated higher levels of career maturity. Further, quality of life indicators showed improvement, with both subjective well-being and school satisfaction maintaining a significant increase at 4 weeks post-intervention. The authors concluded that this intervention may help South Korean youth deal with highly stressful and pressured academic environments in that country.

Results from a longitudinal study of Romanian adolescents (age 13–19, $n = 1151$) found that concern, control and confidence, as measured by the CAAS (Savickas and Porfeli 2012) were all predicted by academic achievement (Negru-Subtirica and Pop 2016). Further, career concern predicted subsequent academic achievement. The findings were consistent regardless of age, gender, or type of school attended (university preparation or work preparation), suggesting strong relationships between these career adaptability variables.

Career Maturity and Adaptability in Emerging Adulthood

Emerging adult (ages 16–29, $n = 1202$) job-seekers in Hong Kong were evaluated on career maturity, emotional intelligence, social vocational interest, and job attainment (Liu et al. 2014). Career maturity was found to have a positive effect on job attainment, and that effect was further increased by higher levels of emotional intelligence and higher levels of interest in a social vocation. Although the effect sizes were modest, the authors pointed out potential clinical implications for developing both career maturity and social intelligence.

Shulman and colleagues identified three career adaptability patterns among emerging adults in Israel: Integrated, Compromised and Vague (Shulman et al.

2014). Young adults (ages 22–29) who had been followed for a period of 7 years were interviewed, and their experiences clustered meaningfully into the three patterns. Those with integrated patterns had high levels of intrinsic motivation at the beginning of the 7 years, expressed current commitment to their careers, and had positive perspectives on the future. Those with compromised patterns had amorphous goals and relatively high levels of dissatisfaction with their current work. Those with vague patterns had very high levels of extrinsic motivation and low levels of parental support.

Career adaptability, specifically the resources of concern and control, has been found to predict life satisfaction as well as the presence of and search for meaning in life among young adults transitioning into work and older adults transitioning out of work (Ramos and Lopez 2018). This sample of US residents (298 young adults, ages 21–29 and 169 mid-life to older adults, ages 55–81) also completed attachment measures. Career concern and control were found to have mediating effects on the relationship between attachment and subjective well-being, in that more secure participants had higher levels of career concern and control and subsequently reported greater well-being. .

Career Adaptability in Adulthood and Older Adulthood

Jiang et al. (2018) examined the relationship between job tenure, job self-efficacy, career adaptability and job content plateaus among employed adults in China. Job content plateau was defined as work having become boring and routine because of lack of challenges or mastery of content of the job. Career adaptability alleviated job content plateaus, but there was also an interaction with job tenure. Those with short job tenure benefitted less from career adaptability than those with longer tenure. Additionally, job tenure had a greater effect among employees with low self-efficacy than those with high self-efficacy. Together, these findings led the authors to conclude that career adaptability may be more beneficial for those facing multiple difficulties (low self-efficacy and greater plateau), particularly if they also have longer job tenure.

Career adaptability was also identified in a single-case study of life-design career counseling in South Africa (Maree 2016, in which a midlife man facing a career change identified a desire to find a way to integrate his two areas of interest to help others. Maree (2016) reported that the man was able to use counselling to “advise himself on his future career trajectory (p. 7).”

Career adaptability resources have predicted job search self-efficacy even in the extreme circumstances presented by refugee status (Pajic et al. 2018). Adult Syrian refugees ($n = 330$) living in Greece and the Netherlands completed the CAAS (Savickas and Porfeli 2012), as well as measures related to psychological capital, career barriers and job-search self-efficacy. Career adaptability resources were found to contribute to job-search self-efficacy, but psychological capital (including hope, optimism, resilience and self-efficacy) had an even stronger impact. The

authors noted that in circumstances with such significant external factors applying pressure to the individual, a broader perspective on resources may be most useful.

In a qualitative study of midlife and older adult retired women in South Korea, career transitions were described as interpretations of the self and the environment, consistent with career construction (Kim 2014). Meaning-making and adaptability in the face of returning to work postretirement were identified as important implications for counseling. Australian retirees who were currently engaged in either paid or unpaid employment ($n = 22$, age ranging from 56 to 78) were found to demonstrate career adaptability resources of concern, control, curiosity and competence via individual interviews (Luke et al. 2016). Though the authors cautioned that the participants all had access to financial and emotional capital, and so these results may not be broadly generalisable, they also noted that career adaptability is an important approach for understanding re-engagement in the workforce.

Career Decision-Making Theories

Introduced by Hackett and Betz (1981), career decision self-efficacy (CDSE) refers to the confidence one has in their ability to successfully perform career-enhancing tasks and navigate career-related decisions. Career decision self-efficacy is the application of Bandura's (1977) Self-efficacy Theory to tasks associated with career maturity (Crites 1978). Career maturity theory suggests that optimal career development requires the ability to perform five basic tasks: accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem solving. Self-efficacy—the degree to which one believes they can successfully perform a specific behavioural task—is a construct developed by Bandura (1977) to explain why some individuals will engage and persist in specific behaviours while others do not.

Bandura posited that self-efficacy is built on four basic sources as follows: (1) a history of performance accomplishments, (2) vicarious learning from models, (3) emotional and physiological reactions when approaching the behaviour, and (4) social persuasion. CDSE is a useful construct to help understand career development and offers insights about how to improve approach to behaviours that will result in adaptive career decisions. First applied to careers in order to help explain math avoidance among women and its effect on their subsequent career trajectories (Betz and Hackett 1981), the theory has since applied to a number of different groups, including racial minorities (e.g., Flores and O'Brien 2002), individuals with disabilities (Luzzo et al. 1999), and the elderly (Cousins 1997).

Social Cognitive Career Theory (SCCT; Lent et al. 1994) is an extension of career decision self-efficacy and is likewise based on elements of Bandura's (1977) social learning theory. SCCT has gained significant empirical support, much of which is focused on the challenges of emerging adulthood. Lent (2013) summarises the thrust of SCCT as “the interplay among three cognitive-person variables that partly enable the exercise of agency in career development: self-efficacy, outcome

expectations, and personal goals” (p. 118). That is, when individuals believe they possess, or can develop, specific skills (self-efficacy), and believe the results of using those skills will be fulfilling (outcome expectations), they will develop a preference for those activities (interests) and move intentionally towards work in that field (personal goals). Unlike CDSE, which is the application of the self-efficacy construct to describe how the career development process occurs, SCCT is the application of self-efficacy to describe what career is pursued. Lent, Brown, and Hackett (2000) modified the original SCCT career choice model to include contextual factors proximal to choice behaviour that may serve as supports or barriers to the development of interests, goals, and behaviour. This category of variables refers to all external factors that may influence career goals and actions directly, which may include specific cultural variations that may influence career choice.

Placed against a backdrop of career counseling theories that prioritise a planful route through the career development process, happenstance learning theory (HLT; Krumboltz 2009) stands out as an orientation that embraces uncertainty, undecidedness, and chance. HLT is uniquely associated with the term “planned happenstance” (Mitchell et al. 1999; p. 116). This term is intentionally oxymoronic, emphasising both the chaotic and unpredictable nature of the world of work (happenstance), and the notion that an individual worker can use their agency to maximise opportunities when they arise (planned). HLT counsellors help clients navigate the intersection of two seemingly disparate ideas: preparation and luck. Further, counsellors actively eschew the notion of over-planned behaviour. Krumboltz (2009) has asserted that, from an HLT orientation, “what-you-should-be-when-you-grow-up need not and should not be planned in advance” (p. 135).

The historical roots of HLT stretch back to early applications of social learning theory (Krumboltz et al. 1976), through a later iteration called planned happenstance theory (Mitchell et al. 1999). HLT is based on the assumptions that (a) all individuals are born into unique situations, (b) have distinctive characteristics or preferences, and (c) will inevitably experience myriad unpredictable events that—if seized and explored—could benefit their career development.

The general purpose of career counseling, from the perspective of HLT theorists, is to re-orient clients to the career development process. If one starts with the assumption that human interactions with the world of work are infinitely complex and chaotic in nature, then predictions of conditions at the level of the individual worker—if your client’s job will vanish, if they will get a raise or promotion, what unforeseen new jobs will develop, what skills will be important in this region in 5 years, and the like—are an exercise in futility (Pryor and Bright 2014). As such, it is erroneous to view a career decision as a single point begets a definitive trajectory. Such beliefs rigidly tie the client to a fragile and fictional career path. Jobs are not immutable aspects of self or permanent features on occupational landscape; but are one step in a long evolution. Individuals fixed on their path may miss chances to grow and learn, and fail to adapt to changing circumstances. HLT counsellors may attempt to disabuse a client of the notion that decidedness is a good or necessary component of meaningful work. Whereas other decision-making models may aspire to wise selections, HLT aspires to creative adaptations (Krumboltz 2009).

Career Decision Self-Efficacy Among Children and Adolescents

Childhood and adolescence is marked by increased independence and choice. A central challenge of this stage is to gain a sense of autonomy and control over the decision-making process itself. As a young child, almost all decisions, educational or otherwise, are made by a parent, guardian or the community. However, throughout adolescence, the individual is increasingly responsible for navigating the decision-making processes on their own. As such, one of the vocational tasks of primary and secondary school is for individuals to learn to make decisions about their relationship with the world of work (Crites 1978). The self-efficacy to make those decisions thus becomes an important developmental task.

From a practical perspective, counsellors, educators, and administrators may attempt to foster career-related efficacy for children and adolescents by combining sources of efficacy with career-related experiences. Building successes regarding important vocational tasks early in life will create a sense of mastery and optimism as children begin to have more autonomy. Inviting adolescents to reflect on their passions, interests and strengths will promote self-assessment practices under positive emotional states. Furthermore, doing so in groups can produce a self-reinforcing milieu in which teenagers foster support, encourage and engage one another. Contact with role models allows allow vicarious learning and the development of plans and goals, again contributing to CDSE.

The *Career Decision-Making Self-Efficacy Scale* (Taylor and Betz 1983) contains five subscales reflecting the behavioural domains proposed by Crites (1978). Betz et al. (1996) developed a short form, the CDSE-SF, retaining the five-factor structure. These measures have been widely used in vocational research. There is some indication a three-factor interpretation of the instrument (goal-planning self-efficacy, information gathering self-efficacy, and problem solving self-efficacy) may be more valid for international samples (Jiang et al. 2017), though the exact nature of those factors may vary across cultures (Creed et al. 2002). However, researchers who analysed U.S. (Nilsson et al. 2002) and Chinese (Hampton 2006) samples concluded that the CDSE-SF is a valid generalised measure of career-decision self-efficacy when interpreted as a total score.

There is a robust literature suggesting that, broadly speaking, CDSE is related to a variety of important vocational constructs as predicted by the theories underlying the concept. In a meta-analysis of 34 studies focused on CDSE, Choi et al. (2012) found that CDSE measures were positively correlated to vocational identity, vocational outcome expectations and career decidedness. The authors did not find a statistically significant relationship between CDSE and demographic variables, like gender and race. Some studies have found cultural differences in CDSE. Mau (2000), for instance, found that Taiwanese students scored significantly lower on the CDSE-SF than did a sample of students in the United States. The author suggested that cultural humility and collectivistic goals may have contributed to the lower scores among the Taiwanese sample.

Despite some differences between cultures, there is a substantial literature base to suggest that CDSE is a valid and important construct within cultural groups. For instance, CDSE is associated with career exploration for Latino/a (Gushue et al. 2006) and African American (Gushue et al. 2006) high school students in the United States, and educational goals for Mexican American high school students (Flores et al. 2006). Among international samples, CDSE was found to be associated with life satisfaction (Jiang et al. 2017) and career adaptability (Guan et al. 2016) among Chinese college students, as well as career exploration behaviours (Chiesa et al. 2016) and career decidedness (Nota et al. 2007) among Italian high-school students.

Family support, in particular, has been implicated as a contributor to CDSE among African American (Alliman-Brissett et al. 2004) and Italian (Nota et al. 2007) high-school students, as well as Filipino (Garcia et al. 2015) and Chinese (Guan et al. 2016) collegians. Future studies may further elucidate how sociocultural factors, like family support or criticism, can affect CDSE, particularly in collectivistic cultural milieus.

Social Cognitive Career Theory Among Emerging Adults

Career development in emerging adulthood is typically marked by entrance into the work force. Some individuals are tracked—either by virtue of their own decisions, or due to social contexts—into tertiary educational or vocational environments (Blustein 2006). Those in educational tracks attend universities, colleges, trade or technology schools; whereas vocational tracks include full-time jobs or apprenticeships. These moves, usually expected by social and economic pressures, generally come with a variety of decisions, including choosing majors, jobs, trades, or geographic moves. Emerging adulthood is a natural focus for career decision-making theories, as western social and educational structures create decision points. A graduating high-school student must determine what jobs to apply for and accept. A college student must select a major. A young person must decide if enrolling in a vocational school would be worthwhile.

The SCCT models offer counsellors, educators, and administrators, a number of actionable avenues to help emerging adults improve vocational decisions. First, early life experiences establish the learning experiences that become the foundation for later life decisions. Enriching and engaging interactions with educational and vocational environments expand options as adolescents mature into adults. Positive experiences in potential career-related domains and awareness of role models who are similar along important characteristics are likely to increase efficacy beliefs and create increasingly accurate self-perceptions. Outcome expectations can become more accurate and clear if clients are encouraged to investigate outcome expectancies to get a full picture of the job (e.g., through internships, informational inter-

views, websites such as O*NET). Furthermore, career counsellors, guidance counsellors and parents may seek to supply activities that will enrich interests and support the translation of interests to goals.

Lent and Brown (2006) recommend using a flexible framework to guide the development of new measures that appropriate to the topics of study. Studies have been published with measures specific to a variety of fields, including medical specialties (Rogers et al. 2009), engineering (Carrico and Tendhar 2012), and public accountants (Schoenfeld et al. 2017). In a meta-analysis of 143 studies of science, technology, engineering and math fields, Lent et al. (2018) found that the SCCT model accounted for a significant portion of variance in both interests and choices in the overall sample. Further, findings suggest that the model generalises across gender and ethnic minority samples (aggregated in this study) in the United States.

Studies conducted on international samples focused on emerging adults as the primary population of interest. A meta-analysis of cross-national research on SCCT models by Lent, Sheu and Miller (as cited in Sheu and Bordon 2017) resulted in findings congruent with the core tenets of the theory: self-efficacy and outcome expectations predicted interest, which in turn predicted goals; however, the meta-analysis did not incorporate specific cultural or nationality variables as moderators, raising the possibility that important differences were homogenised. In a narrative review of SCCT international studies, Sheu and Bordon (2017) found that Asian and European samples were well-represented in the literature, but African, South and Central American samples were lacking. Studies have typically focused on samples of individuals in late adolescence or emerging adulthood who are navigating post-secondary educational contexts. In general, Sheu and Bordon conclude that the SCCT model demonstrates sufficient structural equivalence across international samples to be usefully applied to most international settings. There were, however, notable differences that the authors contend are worth further exploration. Particularly, both the types and strength of social barriers and supports proximal to vocational decisions are culture-dependent and may therefore affect how well SCCT models fit in areas across the globe.

Happenstance Learning Theory (HLT) Among Mid-career Workers

Career decisions are often associated with late adolescence and emerging adulthood. However, career choices manifest throughout the lifespan, in ways both large (e.g., new careers) and small (e.g., re-training for a current job). In the non-linear work environment, workers shift, adapt, retool, and change career trajectories. Unlike an individual who must find a job after high school or select a major in college, established workers have fewer structured decision points. Instead, opportunities are likely to arise more unpredictably, spontaneously, or involuntarily (Krumboltz 2009).

Broadly speaking, HLT practitioners put clients in situations in which favourable unplanned events may happen. In the case of a mid-career worker, this may mean extra training experiences, volunteerism, apprenticeship, networking, consulting sources of information, inquiring about job openings—anything that would get the client engaged in the types of activities that may allow for adaptive happenstance; to put the client in the way of good luck. When opportunity strikes, clients' HLT counsellors prepare clients to recognise and seize it. To those ends, Krumboltz (2009) recommends that clients should be coached about how to remain alert, proactive, and mindful during new experience. More specifically, there are certain skills that will help clients convert these experiences into career enhancing action. Mitchell, Levin, and Krumboltz (1999) proposed five HLT-based skills that help workers could develop to capitalise on opportunities when they arise as follows: curiosity (exploring new opportunities), persistence (engagement despite setbacks), flexibility (adapting to circumstances), optimism (belief that opportunities as possible and attainable), and risk-taking (acting in the face of uncertainty). The *Planned Happenstance Career Inventory* is a self-report measure of these five skills, and has been validated using Korean (Kim et al. 2014), U.S. (Lee et al. 2017) and Lithuanian samples (Urbanaviciute et al. 2017).

Despite its flexibility, HLT has largely been overshadowed by social cognitive career theory in the literature. However, core HLT concepts have been supported as applied to U.S. (Eissenstat and Nadermann 2018) and South Korean (Kim et al. 2016), Swiss (Hirschi 2010) and to Australian samples via chaos theory of careers, an offshoot of HLT (Pryor and Bright 2014). Though more study is needed, there is preliminary evidence that the model may be helpful across cultures. The very concept of chance—central to HLT—may be perceived in fundamentally different ways across cultures (Chen 2005). In addition, HLT may be particularly beneficial for mid-career workers, given that it is one of the few theories that explicitly attempts to expand career opportunities using experiences already available to the client.

Conclusion

Robust research and development are clearly continuing in the vocational guidance literature that is anchored in the three major school of thought described herein. P-E fit, self-concept development, and decision-making strategies all play a meaningful role in international career guidance, and increasingly sophisticated research strategies are continuing to define new research questions and lines of inquiry. Further, the attention to career activities across the lifespan is clearly an inherent part of international inquiry. In fact, moving beyond the “cradle –to-career” movement embraced by educational researchers and policy-makers, it is clear that vocational researchers are examining factors that move individuals successfully from the cradle *through* career.

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Chapter 4

Career Theory for Change: The Influences of Social Constructionism and Constructivism, and Convergence



Wendy Patton

Abstract This chapter provides a brief overview of the history of career theories, and within the context of the need for a shift in philosophical underpinnings of career theory describes the core principles of constructivism and social constructionism and their role in the focus on convergence in career theory. It reviews the literature on bridging frameworks, judged to be capable of providing integrative capacity. While the 2008 edition of this chapter explored two theoretical contributions in detail, career construction theory and the Systems Theory Framework, theoretical discussions categorised as emerging at its time of writing have now become more established. As such, the chapter reviews six theoretical formulations which reflect developments in both theory integration and in the influence of social constructionism and constructivism in career theory. The multidisciplinary interconnection of theories and the contribution of this work to theoretical integration is also discussed.

Keywords Constructivism · Social constructionism · Theory convergence/ integration

Four ongoing challenges in the field of career theory were identified by Patton (2019). One of these, the ongoing drive for integration or convergence of career theories, and the related need to integrate theoretical formulations from related disciplines into the field, will be the focus of this paper. Vondracek et al. (2014) commented that “Calls for an integrative and comprehensive theory of vocational behavior and development have been issued fairly regularly during the past half century” (p. xi). The chapter will also address the influence of constructivism and social constructionism, and in particular, the contribution of these interconnected influences to integration. While the earlier version of this chapter (Patton 2008) discussed two main themes (integration and the influence of constructivism and social constructionism), a body of work developed since then has renewed the

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emphasis on integrating theories from related disciplines (Arthur 2008, 2010; Bakshi 2014; Collin 2009, 2010; Collin and Patton 2009; Dany 2014). As such, this contribution to integration will also be included.

This chapter provides a brief overview of the history of career theories, and within the context of the need for a shift in philosophical underpinnings of career theory describes the core principles of constructivism and social constructionism and their role in the focus on convergence in career theory. Second, it presents key bridging frameworks, judged to be capable of providing integrative capacity. While the 2008 edition of this chapter explored two theoretical contributions in detail, career construction theory and the Systems Theory Framework, theoretical discussions categorised as emerging at its time of writing have now become more established. As such, this chapter will review six theoretical formulations which reflect developments in both integration and in the influence of social constructionism and constructivism in career theory. Finally, the multidisciplinary interconnection of theories and the contribution of this work to theoretical integration as well as a greater explanatory potential for career theory will also be discussed.

Traditional Career Theorising

The traditional approach to career needs to be understood in the context of an era in the world of work when vocational guidance was applied to decisions about jobs for life, usually at school leaving age. Indeed, knowledge about the world of work in order to facilitate career decisions at this time ensured that vocational guidance was largely seen as an objective cognitive problem-solving process where matching knowledge about self and knowledge about the world of work was thought to result in a sound career choice. However, world of work changes have impacted our understanding of career and career development. While the elements of the systems of influence on individual career behaviour are the same, their nature and their relevance to the individual and his/her career behaviour at different points throughout life are different. Further, Blustein (2017) commented that “our discipline was seduced by the economic boom of the post-World War II era” (p. 179), arguing that “career choice privilege” (p. 181) does not apply to everyone equally. Career theories have broadened, new theories have been proposed, and the world of work has undergone dramatic and irreversible change (Patton and McMahon 2014). In today’s world, people change jobs several times in a lifetime, and occupational choice is only one of aspect of a broad array of career challenges to confront. Career theories need to be appropriate for the complexity of individuals living in a complex world.

However, the changes in the context of career and the broadening of the concept of career development have far outpaced the development of theory to account for them (McMahon 2014). Traditional career theories have been challenged as being too narrow, although the more narrow theories have attempted to acknowledge the influence of elements of the broader system in their revised formulations. Theoretical frameworks have been proposed to encompass elements of the social system and the

environmental-societal system, and the potential for integration and convergence of theories has been explored (Collin and Patton 2009; Patton and McMahon 2014; Savickas and Lent 1994; Vondracek et al. 2014). Proponents of moves toward convergence in career theory have emphasised the importance of viewing the whole of career behaviour and the relationship between all relevant elements in the career decision-making process to each other and to the whole. In doing so, it is important that contributions from all theories are considered in exploring an individual's career decision-making processes. Thus the theoretical map underpinning our understanding of career behaviour in the twenty-first century is markedly different from that which existed with the first publication of Parsons in 1909.

McMahon (2014) asserted that major commentary on career development theory “seems to occur approximately every decade” (p. 24). However, despite ongoing developments, the challenges outlined earlier remain and new and emerging theories continue to be published, largely in response to the need for a theory base to be more accommodating of complexity. McMahon (2014) emphasised that most of the new trends in career theory have a philosophical base in constructivism and social constructionism.

Philosophical Underpinnings of Career Development Theory

Before focusing on social constructionism and constructivism in detail, it is important to explore the philosophical underpinnings of career theory. For most of its history, career development theory has been influenced by the logical positivist worldview which emphasises rationality based on an objective value free knowledge; objectivity over subjectivity, facts over feelings. Core assumptions of logical positivism include the notion that individual behaviour is observable, measurable and linear, that individuals can be studied separately from their environments and that the contexts within which individuals live and work are of less importance than their actions (Brown 2002a).

Changes began with the rise in the influence of the constructivist worldview. Constructivists argue against the possibility of absolute truth, asserting that an individual's construction of reality is constructed “from the inside out” through the individual's own thinking and processing. These constructions are based on individual cognitions in interaction with perspectives formed from person-environment interactions. Constructivism views the person as an open system, constantly interacting with the environment, seeking stability through ongoing change. Mahoney (2003) presented five basic assumptions which can be derived from theories of constructivism: active agency, order, self, social-symbolic relatedness, and lifespan development. Active agency implies that individuals are actively engaged in constructing their lives. Constructivism emphasises the proactive nature of human knowing, acknowledging that individuals actively participate in the construction of their own reality. Whereas realism asserts an objective valid truth, constructivism emphasises the viability of an individual's own construction of a personal reality on

the basis of its coherence with related systems of personally or socially held beliefs. “From a constructivist viewpoint, human knowing is a process of ‘meaning making’ by which personal experiences are ordered and organized” (Mahoney and Patterson 1992, p. 671). The second assumption identified by Mahoney (2003) emphasises the ordering processes, that is the patterning of individuals’ experiences to create meaning. The third assumption is that this ordering of personal activity is mainly self-referent, that the focus is on personal identity, with the fourth assumption being that this development of self is embedded in the social and symbolic systems or contexts within which the individual lives. A final core assumption of constructivism is that the activities of the previous assumptions are embedded in an ongoing developmental process that emphasises meaningful action by a developing self working towards a homeostasis. Mahoney and Lyddon (1988) emphasised that “Embedded with self-change is self-stability – we are all changing all the time and simultaneously remaining the same” (p. 209).

In discussing the complexity of the notion of constructivism, Young and Collin (2004) referred to the term “constructivisms”. These authors suggested that there are more similarities than differences between constructivism and social constructionism, with differences primarily centering on whether construction is a cognitive process or a social process. Similarities between the two philosophies concern some of their core constructs including connectedness between individuals and their contexts, narrative discourse, meaning making, subjectivity and personal agency, all of which are evident in contemporary theories and practices. Schultheiss and Wallace (2012) emphasised the relatively long history of constructivism and social constructionism in other fields (e.g., philosophy, sociology, psychology), but commented that vocational psychology embraced it “significantly later” (p. 1), with the work of Savickas and colleagues (Savickas and Lent 1994), Collin and Young (2000), and Guichard (2005). These authors acknowledged that a monograph devoted to constructivism and social constructionism in vocational psychology and career development (McIlveen and Schultheiss 2012) is “the first extensive collection of writings to specifically address the paradigmatic and theoretical foundations of social constructionism in vocational psychology” (Schultheiss and Wallace, p. 1).

Part of the complexity of this literature is that constructivism and social constructionism draw key components from related theories. For example, the notion of proactive cognition is derived from motor theory which asserts that the mind is an active system which has the capacity to produce its output in addition to the input it receives. The individual is always interacting with the environment while simultaneously internally construing and constructing meaning about it. Knowledge is an interactive process and motivated through feedforward and feedback mechanisms. Hence rather than reacting to external stimuli, the human mind actively constructs reality through internal sorting and processing of stimuli. In addition, these viewpoints emphasise that deep cognitive structures function at tacit and unconscious levels and that these tacit ordering rules govern the individual’s cognitive processes.

Systems theory has also contributed to key components of constructivism and social constructionism, in particular in relation to the notion that individuals are

self-organising and that all learning and knowing is comprised of complex dynamic processes through which the self organises and reorganises to achieve equilibrium. The human system is viewed as purposive, ever-evolving, and self-perpetuating. The process is interactive, and the human system operates interdependently with other systems (e.g., family, workforce). “Life is an ongoing recursion of perturbation and adaptation, disorganisation and distress, and emerging complexity and differentiation” (Granvold 1996, pp. 346–347). The following description by M. E. Ford and D. H. Ford (1987) illustrates the systems theory contribution to this aspect of constructivism, as well as the integration of a range of interconnected theories in understanding human behaviour:

The Living Systems Framework (LSF) is designed to represent all aspects of being human, not merely a particular facet of behavior or personality... It describes how the various “pieces” of the person – goals, emotions, thoughts, actions, and biological processes – function both semi-autonomously as a part of a larger unit (the person) in coherent “chunks” of context-specific, goal directed activity (behavior episodes). It also describes how these specific experiences “add up” to produce a unique, self-constructed history and personality (i.e., through the construction, differentiation, and elaboration of behavior episode schemata), and how various processes of change (self-organization, self-construction, and disorganization-reorganization) help maintain both stability and developmental flexibility in the organized patterns that result (steady states). Thus the LSF cannot be easily characterized in terms of traditional theoretical categories. Rather, it is a way of trying to understand persons in all their complexly organized humanness (pp. 1–2).

As constructivism represents an epistemological position that emphasises self-organising and proactive knowing, it provides a perspective from which to conceptualise changing notions of career in post-modern society. These changing notions include the importance of individuals becoming more self-directed in making meaning of the place of work in their lives and in managing their careers (Richardson 1993, 2000; Blustein 2017). Savickas (2000) attributed the influence of constructivism to the change in the structure of work and the emphasis on individuals becoming agents in their own lives and careers as it provides an alternate perspective from which to conceptualise careers in post-industrial societies. Constructivists assert that individuals actively construct their own reality, and are able to actively construct a meaningful position within the work context.

Social Constructionism, Constructivism and the Moves Toward Theory Integration

The emphasis of constructivism and social constructionism on individual meaning-making shifts the focus from the theory to the individual for understanding the complexity of career behaviour. It is within the individual that the theories make sense and where construction of meaning around the multiple influences which are relevant to career development occurs. Thus constructivism has been of major

significance in developments in the career theory literature in the previous two decades, in particular in moves toward integration or convergence in career theory.

Super (1990) commented on the understandable segmental nature of much theory development in the area of career development, “in view of the size of the problem” (p. 221). He acknowledged that theories which attempt to encompass too much may suffer from superficiality, and that future theories of career development “will be made up of refined, validated and well-assembled segments, cemented together by some synthesizing theory to constitute a whole which will be more powerful than the sum of its parts” (p. 221). In adding to this discussion in 1992, Super commented that no theory in itself is sufficient, and that in order to adequately address the complexity of career development, contributions from each of the major theories are necessary.

Patton and McMahon (2014) presented an extensive review of the theoretical journey toward integration, and identified the range of efforts theorists have made to integrate a range of theoretical perspectives. This section of the chapter will provide a brief historical overview of these theoretical discussions in order to provide a background to understanding the iterative nature of advances in the integration of career theories.

Attempts to integrate career theory constructs have been identified from as early as the 1950s when Blau et al. (1956) recognised the importance of contributions from psychology, economics and sociology in understanding career choice, and developed an inclusive conceptual framework that included a comprehensive outline of relevant schema, drawn from the three disciplines, which are relevant to the process of career choice. The conceptual framework of Blau et al. (1956) was important for its inclusion of psychological and contextual antecedents in career choice.

Other examples of interdisciplinary integrative frameworks include the work of Van Maanen and Schein (1977) which represented an important precursor to an integration between the psychological differential, developmental and organisational theorising about career development, as well as sociological theorising. These authors noted how the two frames of reference “have remained remarkably independent” (p. 44) and proceeded to develop an interdisciplinary framework. Their interactional schema was underpinned by the importance of perceiving career development in its total context, within the life-space of each individual.

In searching for a framework for vocational psychology, Hesketh (1985) emphasised the complexity of career behaviour and the improbability of any one theory being able to adequately explain it. She advocated the generation of empirically testable specific theories, or microtheories, and the development of a conceptual framework that provided a structure to integrate findings from research. She identified the following three themes which underlie existing theory in vocational psychology: intervening factors; the role of the individual (how active the individual is); and the degree of emphasis on content or process. She called for a greater integration of the content and process of career development and highlighted the “dynamic active and reactive modes on the part of individuals and organisations” (p. 28).

Also in 1985, Pryor proposed what he termed a composite theory of career development and choice. He commented on the separateness of theorising in vocational psychology from other fields in psychology, emphasising that “Dividing the person up into bits and theorising separately about each piece is a fundamental denial of the totality of the human being ...” (p. 226). He therefore attempted to integrate this theory with Gottfredson’s (1981) circumscription and compromise theory to formulate what he termed a “composite theory”, proposing that an integration of the two theoretical formulations would give a more complete account of career development.

Sonnenfeld and Kotter (1982) presented an expansive integrative framework. These authors identified four waves in the evolution of career theory, including the social structure approach, where career outcomes were set from birth as a result of parent’s social class; the connection between individual traits and career choice; a developmental focus on the stages; and the lifecycle or life course approach. With the increasing number and array of variables relevant to career choice, Sonnenfeld and Kotter (1982) therefore advocated a fifth approach, an attempt to integrate all factors and show how they contribute to a bigger picture. They developed a two dimensional model, with life-space on one axis and time on another, to illustrate the interaction between occupational, personal and family factors in career development. While the model serves an illustrative purpose, it offered little in the way of theoretical underpinnings.

Within the context of increasing complexity, a number of theorists have attempted to integrate additional components into their original theories. For example, as previously discussed, Super (1990) had often referred to his theory as segmental as he focused on specific constructs such as self-concept, career maturity, and work values. In 1992 he acknowledged the need for “Not two, but three...” (Super 1992, p. 59) models to explain career development. These included the life-span, life-space model depicted in the Rainbow, and the determinant/choice model depicted in the Archway. Super commented that these two models also need a decision-making model to form an integrated theoretical approach.

Gottfredson’s (1981, 2002) approach integrated a social systems perspective with psychological approaches. Gottfredson’s (1981) theory “accepts the fundamental importance of self-concept in vocational development, that people seek jobs compatible with their images of themselves. Social class, intelligence and sex are seen as important determinants of both self-concepts and the types of compromises people must make” (p. 546). In focusing on developmental stages, Gottfredson also acknowledged the importance of the concepts of time and context to career development, and integrated concepts from both sociology and psychology.

The concepts of time and context are also recognised in the developmental-contextual approach of Vondracek et al. (1983, 1986). These authors stressed that their approach to career development is not a theory but a general conceptual model. Importantly, they firmly linked career development within the field of human development. Second, they argued that it is essential to view the everchanging contextual (socioeconomic and cultural) influences on career. Finally, an important concept within the model is the embeddedness of human life within multiple levels of

analysis, for example biological, individual-psychological, organisational, social, cultural, historical levels, and the ongoing dynamic interactions between the individual and these areas of context. According to this approach career development is facilitated by the interplay between an active organism and an everchanging environment.

Bridging Frameworks

In addition to individual theorists working to develop integration in theories, the literature on convergence has also focused on broad theoretical areas which may serve as bridging theories, or provide structures for an overarching framework. Savickas (1995) identified six bridging frameworks which have been identified as being applicable to this purpose: developmental-contextualism; learning theory; person-environment transaction; work adjustment theory; developmental systems theory; and systems theory. Young and Popadiuk (2012) highlighted five theoretical approaches which have been informed by constructivism and social constructionism. These included narrative perspectives (see also Hartung 2013) including Savickas (2005, 2013) and the work of McIlveen and Patton (2007); relational theories (Blustein 2011); systems theory perspectives and the work of Patton and McMahon (2014); contextual action theory (Young et al. 1996, 2002, 2011, 2015); and cultural theory (e.g., Blustein 2006; Schultheiss 2013). McMahon (2014) emphasised that the influence of constructivism and social constructionism was particularly evident within the theoretical frameworks of contextual action theory (Young et al. 2011, 2015; Young and Valach 2000), career construction theory (Savickas 2005, 2013), the Systems Theory Framework (McMahon and Patton 1995; Patton and McMahon 1999, 2006, 2014), the Chaos Theory of Careers (Bright and Pryor 2005; Pryor and Bright 2003, 2011), the psychology of working framework (PWF; Blustein 2001, 2006, 2011, 2013) and the extended psychology of working theory (PWT; Duffy et al. 2016). I would add to this list the Living Systems Theory of Vocational Behaviour and Development (Vondracek et al. 2014). As such, this section of this chapter will focus on these six theoretical formulations, each of which has proffered theoretical developments since 2008. Each one will be discussed as a bridging framework emphasising their integrative contribution, as well as their contributions based on constructivism and social constructionism. While it is noted that some theories have integrated aspects of other theories in their development, they cannot be said to be applicable as bridging or integrative frameworks. For example, the Cognitive Information Processing theory (Peterson et al. 1991; Sampson et al. 2004) has drawn from Holland's work, cognitive therapy, and learning and instructional theory (Sampson 2017). As such these are not discussed in this chapter.

Developmental-Contextualism Through to Living Systems Theory

This section of the chapter will begin with the developmental-contextual perspective, and track its development, incorporating elements of developmental systems theory and systems theory through to the Living Systems Theory of Vocational Behavior and Development. The developmental-contextualist perspective is derived from both the developmental organic perspective and the contextualist perspective. Vondracek et al. (1986) acknowledged two limitations of pure contextualism in the formulation of their career theory framework based on developmental-contextual theory. First, contextualism emphasises the dispersive nature of life. Believing that development must be more than mere change, and that “a worldview that stresses only the dispersive, chaotic, and disorganized character of life would not readily lend itself to a theory of development” (p. 24), Vondracek and colleagues combined two perspectives in their formulation of developmental-contextualism. Second, contextualism emphasises the current event, stressing the importance of the relation between the elements. A developmental analysis emphasises the changes that exist in the relation among elements over time.

Developmental-contextualism therefore emphasises ongoing change both within the organism and within the environment, and in the interaction between the two. Further it acknowledges the internal stability of the organism, and the dual nature of influence between the organism and the context. Vondracek et al. (1986) also emphasised the self-determinism and agency of the individual. The developmental contextual approach holds that the environment engenders chaotic and reflexive changes in an individual’s behaviour, however it also notes the influence of the individual in facilitating or constraining the environmental. Within the model, the individual is an active organism operating in a constantly changing environment, hence the concept of dynamic interaction. An individual’s career development is a reflection of the continuous interplay of person and context at all possible levels. Thus this approach has the capacity to include elements of content and process as identified earlier in this chapter.

Vondracek and Porfeli (2002b) emphasised the potential for an integration of lifespan psychological and sociological life course approaches to our understanding of career development, in children (Hartung et al. 2005) and adults (Vondracek and Porfeli 2002a). Vondracek and his colleagues drew heavily on advances in life-span development theory (Baltes and Baltes 1990; Baltes 1997; Baltes et al. 1998) to present their discussion of an updated integrated perspective. Vondracek and Porfeli (2008) noted that theoretical formulations of systems theory have added to developmental-contextualism’s capacity to address processes of development. This will be discussed under systems theory.

Developmental Systems Theory

Vondracek and Kawasaki (1995) further developed the developmental-contextual model using the Living Systems Framework (LSF; Ford 1987; Ford and Ford 1987), with a framework which extended our understanding from the description of human behaviour to an understanding of the underlying processes – the “how and why of the behaviours that determine the work lives of individuals” (Vondracek and Kawasaki 1995, p. 118). These authors illustrated the value of both Developmental Systems Theory (DST; Ford and Lerner 1992) and Motivational Systems Theory (MST; Ford 1992) to our understanding of adult career development in particular.

Living Systems Theory of Vocational Behavior and Development

This theoretical framework expands the contributions of both previous theories, and draws significantly from systems theory. Vondracek et al. (2014) followed Crites’ (1969) view that the subject matter of vocational psychology should be “the study of vocational behavior and development” (p. 16), and named their theory A Living Systems Theory of Vocational Behavior and Development. They reviewed the work of Patton and McMahon (2006), and noted that none of the 17 theories reviewed by these authors address all of the phenomena salient in career theory. They also noted the vague nature of the meanings of some of these phenomena. Vondracek et al. further noted that “Dissatisfaction with the incompleteness of early to mid-twentieth century theories has produced multiple new theories in the traditional segmental form with additional kinds of concept, and has led to calls for more inclusive efforts. The progress towards more integrative theories, however, has been slow and limited” (p. 15). They explored phenomena in existing theories “as one way of locating the phenomena to be included in a comprehensive, integrative theory” (p. 16). In addition, these authors drew on the Living Systems Framework (LSF; Ford 1987) and related theoretical formulations (Developmental Systems Theory, Ford and Lerner 1992; and Motivational Systems Theory, Ford 1992), arguing that a sound theory needs to fit within a larger general theoretical framework for human development. Vondracek and his colleagues (2014) proposed the Living Systems Theory of Vocational Behavior and Development (LSVBD) as an integrative framework for career development. Moreover, these authors noted that the LSVBD connects career development with related fields such as human resources and industrial-organisational psychology and to other disciplines that apply a living systems model.

Systems Theory – Systems Theory Framework and Chaos Theory of Careers

Reflecting the multidisciplinary applications of systems theory, its potential value to career development was recognised more than three decades ago by Osipow (1983) and subsequently Collin (1985, 2006) who applied systems theory to a conceptual model of career. Further, both Blustein (1994) and Bordin (1994) acknowledged the value of systems theory as a basis for a convergence framework. Other systems theory approaches which have attempted to integrate the complex array of career development influences and processes include the ecological approaches of Szymanski and Hershenson (1997) seeking to represent people with disabilities, and Cook et al. (2002a, b) ecological systems representation of women's career development.

Vondracek et al. (2014) commented that “Three noteworthy efforts to create integrative and comprehensive theoretical or ‘metatheoretical’ frameworks” (p. 7) which include a systems perspective include the work of Patton and McMahon (2014), Pryor and Bright (2011), and Vondracek et al. (1986). This latter work and its further development by Vondracek et al. (2014) was discussed in the previous section. The remaining two theoretical formulations will now be discussed.

The Systems Theory Framework The Systems Theory Framework (STF; McMahon and Patton 1995; Patton and McMahon 1999, 2006, 2014) was the first attempt to comprehensively present a metatheoretical framework constructed using systems theory. The STF is not a theory of career development; rather it represents a metatheoretical account of career development that accommodates career theories derived out of the logical positivist worldview with their emphasis on objective data and logical, rational process, and also of the constructivist worldview with its emphasis on holism, personal meaning, subjectivity, and recursiveness between influences. Indeed, one of the advantages of the STF is that it values the contribution of all theories, and operates to operationalise constructivist and social constructionist theories of career. It is constructivist because of its emphasis upon the individual. It represents as social constructionist because of its location of the individual within myriad social influences. Its focus on process influences, in particular *recursiveness*, and the role of *story*, emphasise the centrality of the individual actively constructing the meaning of his or her life within multiple content and process influences.

The STF has made a significant contribution to both convergence and constructivism. In his perspective on the convergence of career theories, Brown (2002b) noted the emergence of the STF as a possible integrative framework for career theory. It has been described by Blustein (2006) as an “excellent synthesis of the systems perspective of career development” (p. 94). As mentioned, Vondracek et al. (2014) described its usefulness as a comprehensive ‘meta-theoretical’ framework, a view reiterated by Young and Popadiuk (2012). McMahon (2014) identified the STF

as one of the five key theoretical developments emerging from the growing influence of constructivism and social constructionism.

In addition to this contribution, the STF has enabled further interconnections between related theories, including relational theory (Patton 2007), dialogical theory (McIlveen 2007; McIlveen and Patton 2007), career construction theory (Patton 2008), and contextual action theory (Patton 2015). McMahon (2014) asserted that “the major contribution of systems theory to career theory is in connecting constructivist and convergence agendas” (p. 35) and this has been operationalised within the Systems Theory Framework. This framework is discussed in more detail elsewhere in this book (McMahon & Patton).

The Chaos Theory of Careers Pryor and Bright (2003, 2011) have applied chaos theory to the study of careers, and have described their work as “a systems theory approach in which complexity is acknowledged as contributing to the susceptibility of a system to change” (2003, p. 122). These authors asserted that over time chaotic systems eventually self-organise into patterns, and have identified four major categories of attractor which is the state to which a system moves. The chaos theory of careers “seeks to understand individuals as complex, dynamical, non-linear, unique, emergent, purposeful open systems, interacting with an environment comprising systems with similar characteristics” (2003, p. 123). Pryor and Bright (2003) commented that their theoretical formulation is not necessarily concerned with content, but with the development of structures within which theoretical frameworks can be located. The emphasis on chaos and change represents a significant shift from traditional career theories. Pryor and Bright (2011, p. 184) emphasised that both people and the organisations within which they enact careers are complex, continually changing, interconnected, emergent, open, and inherently unpredictable. The derivation from a number of theories, and the contextual focus on systems as content and theoretical process, enhance the chaos theory of careers’ status and contribution to integration.

Contextual Action Theory

Young, Valach and Collin (1996, 2002; Young et al. 2011, 2015) proposed action theory as a means of integrating aspects of contextualism within a framework for understanding key aspects of many contextual approaches to career. These authors defined the basis of contextualism as “the recognition of a complex whole constituted of many interrelated and interwoven parts, which may be largely submerged in the everyday understanding of events and phenomena” (Young et al. 1996, p. 479). Context consists of multiple complex connections and interrelationships, the significance of which is interpreted according to an individual’s perspective. Young and colleagues identified several aspects of the contextualist metaphor crucial to their contextual explanation of career, including the goal directed nature of acts, acts which are embedded in their context. Change is integral within this perspective, and

“because events take shape as people engage in practical action with a particular purpose, analysis and interpretation are always practical” (Young et al. 1996, p. 480). Young and Valach (2000, 2004) emphasised that the action theory of career serves as an integrative approach to career theory in that it not only integrates social-contextual and psychological perspectives, but also “explicates social perspectives that have the effect of moving (the theory) beyond traditional career approaches and linking it directly to constructionism” (Young and Valach 2004, p. 501).

Career Construction Theory

Career construction theory (Savickas 2001, 2002, 2005, 2013) has contributed significantly to our understanding of the roles of both integration and constructivist influences in career theory development. Savickas (2013) asserted that social constructionism has been used to integrate the segmental theories of career development in career construction theory, tying together the segments of developmental, self and contextual segments in Super’s life-span life-space theory. Savickas identified this work as being positioned within the metatheory of social constructionism, commenting that career construction theory addresses “how the career world is made through personal constructivism and social constructionism” (2005, p. 43).

Simply stated, career construction theory is about how individuals “build careers” (Savickas 2013, p. 147) and that they do this “by imposing meaning on their vocational behaviour and occupational experiences” (Savickas 2005, p. 43). In formulating this theory, Savickas (2001) initially advanced the life-span/life-space aspect of Super’s developmental theory through the integration of theoretical constructs from personality, developmental and motivational psychology. This work was built upon the three-tiered model of personality proposed by McAdams (1995, 1996) who suggested that the personality could be conceptualised at three levels which allow for the determination of differences amongst individuals: (a) dispositional signatures: personality traits; (b) contextualisation of lives: personal concerns; and (c) the problem of identity: personal narratives. Savickas (2001) proposed an additional fourth level or proposition to account for action in the process of career development, the processes of learning, cognition, and decision-making.

In updating career construction theory in 2013, and drawing on both social constructionism as a metatheory and the work of McAdams (e.g., McAdams and Olson 2010), Savickas expressed the three core components as self as actor, self as agent and self as author. Reflecting the relationship between these different expressions of the core components, Savickas (2013) explained that “individuals, through their actions in the family, compose a social role as an actor, then adapt this role for use in the theatres of the school and community, and eventually author an autobiographical story that explains the continuity and coherence in occupational experiences” (p. 151). Thus career construction theory focuses on individuals’ behaviours as actors, striving as agents, and explanations as authors (Savickas 2013).

Psychology of Working Framework and Psychology of Working Theory

The Psychology of Working Framework (PWF; Blustein 2001, 2006, 2011) was developed to complement existing vocational theories through highlighting the role played by key sociocultural factors (e.g., social class, privilege, freedom of choice) in career choice and career fulfilment. The PWF proposed an inclusive and integrative psychology of working, emphasising that much of the field's theoretical work has been developed in relation to understanding work lives of a small proportion of the population, those that live in relative affluence. This multidisciplinary framework emphasises that vocational psychology must draw upon theories of sociology as well as “theoretical ideas emerging in other domains of psychology outside of the traditional purview of vocational psychology” (p. 177) through studying work in a range of contexts, including organisations, home, and culture. In particular Blustein (2006) proposed two alternative meta-perspectives which he viewed as possible organising frameworks – social constructionism and the emancipatory communitarian perspective. Blustein (2011; Blustein et al. 2011) advocated incorporating relational theory into this model, advancing the self-in-relation construct proposed by Blustein and Fouad (2008). This proposition is designed to more firmly connect the self and the relationships, both familial and social as well as cultural and historical, that influence the self. These relational theoretical perspectives (Blustein et al. 2004; Schultheiss 2003), are associated with the assumption that human beings are relational beings for whom developing and sustaining meaningful connections with others is a core activity. Further marking the significance of a broad understanding of culture in human action, Schultheiss (2007, 2013) centred culture within the relational cultural paradigm, providing a central place for a more inclusive study of career incorporating culture, race, gender, sexualities and social class. More recently, Duffy et al. (2016) advanced the Psychology of Working Theory (PWT), wherein research from a number of related fields (e.g., vocational psychology, multicultural psychology, intersectionality and the sociology of work) has been built on to develop an empirically testable theory.

Reflections on These Theoretical Formulations

The theoretical developments discussed in this chapter exemplify the influences of both social constructionism and constructivism, and convergence, within the career theory literature. Career construction theory and the Living Systems theory of Vocational behaviour and Development are examples of one of the final stages of science which Savickas identified in 1995, unification. Unification involves a synthesis which uses a new “superordinate umbrella, coherent theoretical gestalt, metatheoretical framework or conceptually superior theory” (Beitman et al. 1989, p. 139). Savickas' (2013) most recent conceptualisation of career construction

theory demonstrates deriving key concepts and processes from other career theories (e.g., the work of Holland and Super), in addition to concepts and processes from other theoretical areas, for example personality theory, action theory and developmental-contextualism. In addition, while developed under the metatheory of social constructionism, it is presented as a theory with descriptions of content and processes, the what, why and how of career development, with a significant number of theoretical propositions.

Other formulations presented within this chapter also demonstrate significant examples of unification, as well as the development of theories over time. For example, contextual action theory was developed from the 1990s, and the psychology of working framework and career construction theory first published in 2001. Each of these theoretical formulations now provide sophisticated theories with testable hypotheses. In addition, these theories have either advanced earlier theoretical understandings or built and further refined earlier theories. A key example of the former here is the advancement of the developmental-contextual theory framework of Vondracek et al. (1983, 1986) to the Living Systems Theory of Vocational Behavior and Development published in 2014. An example of the latter is the development and integration of action theory into the contextual explanation of career (Young et al. 1996, 2002; Young and Valach 2000, 2004).

The Systems Theory Framework (Patton and McMahon 2014) is also an example of unification via a metatheoretical framework, however its contribution has remained as that, a framework for integrating existing theories, offering a framework for the blending of what different disciplines can bring to career theory. With the individual as the central focus, constructing his or her own meaning of career, constructs and processes of existing theories from within vocational psychology and from other disciplines are deemed relevant as they apply to each individual.

The STF differs from these other theories in that it facilitates the inclusion of relevant aspects of multiple existing theories within an integrated framework, wherein relevance and meaning is decided upon by each individual. Savickas asserted that an individual's career story is the crucial site of connection between the elements of vocational personality and adaptability. Similarly, Patton and McMahon emphasise that the application of the STF in integrating theory and practice is located within the crucible of the individual. This is reflective of Miller-Tiedeman's (1999) proposition that individuals write their own career theories which are revealed through their evolving stories; "theory is not separate from experience. Theory merely mirrors a story of someone's experience" (p. 52).

Integration with Other Disciplines

In addition to division within the disciplinary field, career theory has been criticised for being segmented across disciplinary branches (Arthur 2008, 2010; Bakshi 2014; Dany 2014; Collin 2009, 2010; Collin and Patton 2009). For example, Bakshi (2014) emphasised the unrealised potential to integrate life span theory and career

theory. This segmentation has occurred within psychology, however it is important to note that psychological theory has dominated the career theory field and sociological contributions have received minimal attention. The recent emphasis on context has provided the opportunity to revisit these contributions. For example, contributions from Roberts (2012) and Patton and Doherty (2018) have re-established the importance of sociology in career theorising. A number of the integrated frameworks discussed within this chapter (e.g., STF, PWT, LSVBD) have emphasised the increasing need to incorporate work from sociology. Indeed, as discussed earlier, the Psychology of Working Framework (PWF; Blustein 2001, 2006, 2013) was developed to emphasise sociocultural factors within existing vocational theories.

Interestingly this is not new (see the work by Blau et al. 1956), however the dominance of psychological theorising has meant it did not receive the appropriate emphasis. In addition, a number of authors have suggested that a proliferation of psychological theories after World War II actually prevented the focus on an integration agenda (Guichard 2005; McMahon 2014; Patton 2019).

The description of theories earlier in this chapter demonstrated their derivation from different branches of psychology and it could be argued that this work has contributed to greater bifurcation of the field of career development (Savickas and Baker 2005). Attempts to integrate disciplinary camps have been occurring for some time (e.g., Savickas 2000), however Van Esbroeck and Athanasou (2008) noted that “the situation did not really improve and led to even larger divergence” (p. 4). Collin and Patton (2009) drew writers from vocational psychology and organisational psychology to assess the extent of the divide and to propose ways toward dialogue. Authors in this volume used a range of “divide” metaphors such as “two tributaries”, “lost twin”, “separate islands”, “parallel streams”, and “Balkanisation of fields”. These editors proffered specific and concrete suggestions to develop a synergy and Collin (2010) proposed a new field to be named “career studies”. The argument for a greater interdisciplinary collaboration is not new, however Arthur (2008, 2010) has argued it is now more urgent as a more unified field may have a greater descriptive and explanatory capacity to address career decision-making issues than isolated and narrow approaches. In particular Dany commented “Keeping in mind that careers unfold in inhabited worlds could help to have both convergence and diversity to sustain the integrative approach we are calling for” (p. 727). Collin (2009) drew an important distinction between multidisciplinary, interdisciplinarity, and transdisciplinarity:

With multidisciplinary, several disciplinary perspectives come together to work independently on the same problem, and are unchanged in themselves when they disperse. With interdisciplinarity, their collaboration may result in the building of bridges between them or, going even further, integration between them and the formation of a new, hybrid, discipline (p. 8).

Collin then defines transdisciplinarity as “the use of theories, concepts, and approaches from one or more disciplines as an overarching conceptual framework to address issues in a number of disciplines” (p. 8).

Vondracek et al. (2014) presented four reasons as to why “current theories of career development have had almost no impact beyond the boundaries of a few relatively small sub-specialities in the social and behavioral sciences” (p. 6). They argued that each theory only focused on some relevant attributes; collectively, career theories have not linked to advances in related fields; most theories have focused narrowly on individuals’ perspectives; and some have failed to demonstrate relevance and usefulness to practitioners. In sum, these authors argued that for vocational psychology to assume a stronger place, “the various disciplines who lay claim to aspects of this domain need to look beyond their current theoretical, scientific, and professional boundaries and endeavour to integrate and claim their place in the larger science of understanding human functioning and development and promoting positive development across the lifespan” (p. 7).

The Position of Career Theory

Patton (2008) claimed that the influence of convergence and social constructionism was evident in only two theoretical positions, specifically career construction theory and the Systems Theory Framework. A decade on, it is evident that there has been considerable advancement. This chapter has demonstrated that the developing worldview of contextualism, and the development of constructivism and social constructionism in cognitive psychology, have been important influences in the move toward the integration and convergence of career theories. Savickas (1995, p. 29) called for a “sophisticated framework” that could adequately deal with the diversity of epistemological and theoretical groups within vocational psychology. In their view to the “future of career”, Collin and Young (2000) emphasised the importance of two crucial issues – the construction of individual identity and the importance of regarding the individual in his or her context, spatial and temporal. Collin and Young were calling for theories of career that would provide a new framework for post-industrial world and relate to the epistemological root metaphor of contextualism (Collin 1997; Collin and Young 1986; Lyddon 1989).

The question needs to be asked as to why promising integrative frameworks from more than 50 years ago (e.g., Blau et al. 1956) did not receive traction in the field. This chapter has suggested the following three reasons: the proliferation of career theories post World War II (Guichard 2005; McMahon 2014; Patton 2019); the dominance of psychology as the disciplinary underpinning of these theories (Savickas and Baker 2005); and the late inclusion of constructivism and social constructionism into vocational psychology despite their inclusion into related fields earlier (Schultheiss and Wallace 2012).

Despite Brown’s (2002a) assertion that the divide between constructivism and positivism means that “convergence among theories and the development of an integrated theory seems less likely today than ever” (2002a, p. 15), it is evident that the discussion of theories in this chapter demonstrates the dynamic nature of theorising in this field, and the ongoing strength of the joint influences of social constructionism

and constructivism, and convergence. A decade ago, Betz (2008) concluded that “although we are not at a point of full theoretical integration or convergence ... we definitely have *theoretical co-mingling*. Researchers have realised that there are useful concepts in vocational psychology, not all associated originally with a single theoretical model” (p. 369). More recently Vondracek et al. (2014) asserted that integration has remained an “elusive goal” although “progress toward the goal has been made, and realization of this goal is within reach” (p. 10).

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Chapter 5

The Systems Theory Framework: A Systems Map for Career Theory, Research and Practice



Mary McMahon and Wendy Patton

Abstract The Systems Theory Framework of career development (STF) recognises the contextually embedded nature of career development through its application of systems thinking and systems mapping. First published almost a quarter of a century ago, the STF continues to serve as a systems map that can inform, conceptualise and integrate contemporary career theory. In addition, the systems maps of the therapeutic system, the school system and the research system provide conceptual and practical maps for career practitioners that stimulate reflection on career practices such as career counselling and career education, and for researchers to consider the status quo of career research. Systems mapping is a process that facilitates analytical reflection on particular issues and has been applied to individual career decision making through the qualitative career assessment instrument My System of Career Influences (MSCI). The MSCI (Adult and Adolescent versions) guide individuals through the construction of their own systems maps of career influences. This chapter overviews the Systems Theory Framework. Applications of the STF are considered and the STF's utility as a systems map to conceptualise career theory, research and practice at both macro and micro levels is elaborated.

Keywords Systems theory framework · STF · Systems mapping · Systems thinking · My system of career influences

Almost a quarter of a century after it was first published, the Systems Theory Framework of career development (STF; McMahon and Patton 1995, 2018; Patton and McMahon 1999, 2006, 2014, 2015, 2017) continues to serve as a systems map

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that can inform contemporary career theory, career research and career practice. This chapter begins with an overview of the Systems Theory Framework, which applies systems thinking and systems mapping to career development. Applications of the STF are then considered and the STF's utility as a systems map to conceptualise career theory, research and practice at both macro and micro levels is elaborated.

The Systems Theory Framework of Career Development

The Systems Theory Framework was borne out of a need for news of difference in the field of career development at a time when the relevance of the extant theory and practice to the complex needs of diverse clients in a rapidly changing society was being questioned (e.g., Collin and Young 2000; Savickas and Lent 1994). Career development was challenged to modernise its practices and renovate (Savickas 2000) in order to be fit for purpose in the twenty-first century. The challenges for career development were many including the multitude and divergence of career theories. Concerns were expressed about whether convergence of career theories was needed or whether an overarching framework might be useful (e.g., Savickas 1993; Savickas and Lent 1994). A further related challenge was perceived as a reliance on constructs emanating from the positivist worldview such as objectivity, linearity and cause and effect and little recognition of constructs emanating from the constructivist worldview such as personal agency, meaning, subjectivity and emotion. Limited attention to culture and to the context of career development was and remains a persistent challenge for career development. Indeed, the complex and contextual nature of career development caused Savickas (1995) to observe that positivism, the philosophical foundation of many theories at that time, would limit its comprehensive study.

Responses to these challenges emerged in the form of new theories (e.g., Career Construction theory [Savickas 2013]; Chaos Theory of Careers [Pryor and Bright 2011]) and practices (e.g., narrative career counselling) and are largely underpinned by the tenets of constructivist and social constructionist philosophies, which emphasise personal agency, meaning making, subjectivity, and narrative discourse. Similarly, the Systems Theory Framework (McMahon and Patton 1995, 2018; Patton and McMahon 1999, 2006, 2014, 2017) is underpinned by constructivist philosophies.

The STF emanated from research based on McMahon's (1992) contextual framework for adolescent career decision making and is one of the earliest responses to modernising career development and the first to explicitly employ systems theory as its foundation. Emanating from Latin and later the Greek word *systema*, a system is best described as a whole comprising many parts. Systems theory itself originated in the field of biology in the work of Ludwig von Bertalanffy (1934) who recognised as early as 1928 that a complete picture of any phenomena cannot be provided by single parts and processes and published his seminal work, *General Systems Theory*, in 1968. Essentially, "to understand things systemically literally means to

Systems maps are holistic diagrams developed on a particular topic (Király et al. 2016); the STF is itself a systems map (see Fig. 5.1) that depicts many contextual influences on career development in a series of interconnected systems. The term influence has neither positive nor negative connotations; it merely signifies an interaction between the influence and the individual or other influences in the system. The individual's location in the STF serves as a reminder that, consistent with systems theory, an "individual in context view" of career development is needed in order to avoid "oversimplification of career decision-making and career development" (McMahon et al. 2014, p. 30). An "individual in context view" has relevance in individualistic cultures such as western cultures and also in collectivist cultures where career decision making may be socially embedded in families and communities.

Career development is depicted in the STF as a series of interconnected systems of influence, specifically: the individual system, the social system, and the environmental-societal system, which are located within the context of past, present and future time. The STF and its systems of influence are open systems, which means that they are subject to influence from elements beyond their permeable boundaries and that they can also exert influence beyond their boundaries. Within each of these interconnected systems are located a number of influences that represent the content of career development. Some of these influences have been the focus of career theories that offer detailed accounts of them (e.g., personality has been accounted for in detail by Holland's (1997) theory of vocational personalities and work environments). By contrast, the STF is not a theory; rather, the STF was conceived as a meta-theoretical framework, which is, in essence, a broad perspective that over-arches a number of theories. As such, the STF recognises the contribution of all theories and their capacity to provide detailed accounts of some of the influences identified in the STF. The STF also makes visible little researched influences and influences that have seldom been accounted for in career theory. Such influences, and others not represented in the STF, will emerge in the stories told by individuals in career counselling and career programs. Thus, the STF is responsive to Super's (1992) observation that it is unlikely that a single theory can be comprehensive enough to adequately account for career development.

The STF is a complex and dynamic framework of career development that depicts both content and process influences. At the centre of the STF is the individual system featuring a range of intrapersonal influences (e.g., beliefs, gender, personality, values) on career development. With career psychology's origins in differential psychology, some of the intrapersonal influences have been intensely researched. For example, extensive bodies of research have been amassed about well-known career influences such as personality, values, and interests. Further, research on influences such as interests has driven the development of myriad career assessment instruments. Other intrapersonal influences such as sexual orientation and disability have received little research attention in career development yet may have profound influence on individuals' careers.

Intersecting the individual system are the influences of the social system, the 'significant others' with whom the individual may interact and who may be

influential in their career development. Social influences include family, peers, workplaces, education institutions, community groups and media. Career development research has paid much less attention to social influences. A feature of the STF, as discussed previously, is the dynamic process of change over time. This manifests in changing constellations of influences over time and change in the nature of influences. For example, when the STF was first published, the influence of media, which has been little researched in career development, primarily concerned newspapers, magazines, radio and television. Since that time, the rapid growth of social media has seen it become increasingly influential in career development as a means of networking, self-promotion and information.

The third of the interconnected systems of influence is the environmental-societal system that incorporates the influences of socioeconomic influence, geographic location, globalisation, political decisions, historical trends and the employment market. Most of these influences have been little researched in the field of career development even though their impact on career development can be profound as demonstrated by research conducted in other fields such as geography, economics, education and sociology (see McMahon and Patton 2018).

The content influences could in themselves appear static. The STF, however, also depicts the dynamism of career development through its process influences of recursiveness, change over time, and chance. Recursiveness is the process of interaction within and between influences and between systems and is depicted as dotted lines in the STF to illustrate the permeability of the systems' boundaries. Change over time recognises that incremental change is ongoing and occurs over time in and between influences. For example, for most individuals, the influence of family is ever present yet the nature of its influence changes through life and may be configured differently at different stages of lifespan career development (e.g., childhood or adulthood). Change, however, may also be sudden or spontaneous (e.g., during a major life crisis) and the system may be required to develop a new form of functioning to accommodate it; such change is termed discontinuous change. Chance recognises the influence on career development by unexpected natural and human events and encounters. Essentially, the STF is a map of influences and interrelationships (McMahon and Patton 2017); systems thinking considers the interrelationships and interaction between influences by "looking inside the 'space between'" them (Sexton 2012, p. 61).

An important feature of the STF is its emphasis on an "individual in context" (McMahon et al. 2014, p. 30) perspective that enables individuals to place their own emphasis on influences dependent on their culture. Indeed, applications of the STF (e.g., the MSCI) enable individuals to construct personalised and culturally sensitive STF's. Consequently, culture is not explicitly represented in the STF because of its multifaceted and personal nature and its many possible locations in the system. Similarly, constructs such as identity and work are not specifically located in the STF because they, along with culture, exist in the recursiveness and spaces of the system.

Systems thinking underpins key constructs of systems theory and, consequently, the STF, including wholes and parts, patterns, acausality, abduction, recursiveness,

discontinuous change and story. For example, the interconnectedness of wholes and parts reflects systems thinking; a comprehensive understanding of a part is best achieved by viewing it in the context of the whole. Within complex, dynamic open systems, recursiveness (interaction) occurs within and between parts, between parts and the whole, and between parts, the whole and influences beyond the permeable boundaries of the system. Change is continuous in systems; discontinuous change results in differences in the system before and after change that may seem unrelated. Patterns may emerge within and between systems (e.g., patterns of behaviour and interaction). The complexity of systems and the recursiveness between parts suggests that cause is difficult to determine and this is referred to as acausality; linear cause and effect relationships are not consistent with systems thinking. Because patterns exist within systems and cause and effect thinking is not appropriate, a form of reasoning known as abduction is a construct of systems theory. Abduction involves thinking across the influences in the system, sometimes by examining patterns and relationships. In practice, career development is best accounted for by the stories told by individuals. These constructs underpin applications of the STF in theory, research and practice.

Applications of the STF

A strength of the STF throughout its history has been its integration between theory, research and practice (see McMahon and Patton 2018 and Patton and McMahon 2017). In particular, the STF has underpinned research, been informed by research, and has stimulated the development of practical applications in career counselling and career assessment. Further, the STF has stimulated theory integration. Theory integration will be considered first followed by a brief overview of the STF's practice applications. Finally, career research will be considered in relation to the STF.

Theory Integration

Theory integration may be facilitated by the STF at three levels. First, it may be used to demonstrate integration between career theories and also with practice. Second, it may be used to demonstrate integration with other disciplines; and, third, it may be used to analyse theoretical constructs. The STF has been applied to analyse integration between career theories at the macro-level (e.g., McIlveen 2007; Patton 2007, 2008, 2015) and individual career development at the micro-level (McMahon et al. 2013). For example, Patton (2015) considered the relationship between the STF and Contextual Action theory and concluded that despite their differences, they share conceptual similarities through their root metaphor in contextualism and also similarities in practice through their development of measures and approaches that may be utilised by practitioners. McIlveen (2007) and McIlveen

and Patton (2007) described the theoretical integration of the STF and dialogical career theory to develop the dialogical career assessment instrument, *My Career Chapter* (McIlveen 2006). At the micro-level of individual career development, McMahon et al. (2013) analysed the career development of older women and considered the potential provision of career services at various points in women's careers from the perspective of the STF. In discussing the integration of relational theory and the STF, Patton (2007) explained the relational dimension of career assessment instruments based on the STF and how theory practice integration may be facilitated at the micro-level of interventions with individuals.

As a meta-theoretical framework of career development, the STF also has a capacity to integrate the potential contributions of other disciplines to career development and illustrate where they may apply (see McMahon and Patton 2018). For example, the work of the English sociologist Roberts (2012) provides insight into the impact of socioeconomic status of career development. Patton and McMahon (1999, 2006, 2014) integrate Experiential Learning Theory (ELT; Kolb 1984) as a learning theory underpinning career practice based on the STF. This is further elaborated later in the chapter. Finally, the STF has also been used as a lens through which to analyse career development constructs such as work (McMahon 2017), learning (Patton and McMahon 1999, 2006, 2014), and identity (McMahon 2014). Such constructs are intentionally not visible in the STF because they are fluid and exist in the recursiveness of the system (i.e., the dotted lines), and in the spaces (see Fig. 5.1).

Career Practice

A strength of the STF since its inception in McMahon's (1992) contextual framework is the importance placed on its application to practice. For example, subsequent to the publication of the first theoretical statement of the STF (McMahon and Patton 1995), a range of Australian authors considered its practice applications with diverse potential clients and in diverse settings in an edited text (Patton and McMahon 1997). Fundamental to practical applications of the STF is the process construct of learning in which Patton and McMahon (1999, 2006, 2014) position individuals as learners, a feature that distinguishes the STF from contemporary career theories such as career construction theory and the chaos theory of careers. Drawing on constructivist learning principles, enacted through Experiential Learning Theory (ELT; Kolb 1984), learning results from the recursive process between experiencing, reflecting, thinking, and acting (Kolb and Kolb 2010). Career development practitioners (e.g., career counsellors and career teachers) are positioned as learners and also as learning facilitators who "generate learning experiences for clients" (Krumboltz 1996, p. 75) and "facilitate the learning of skills, interests, beliefs, values, work habits, and personal qualities that enable each client to create a satisfying life within a constantly changing work environment"

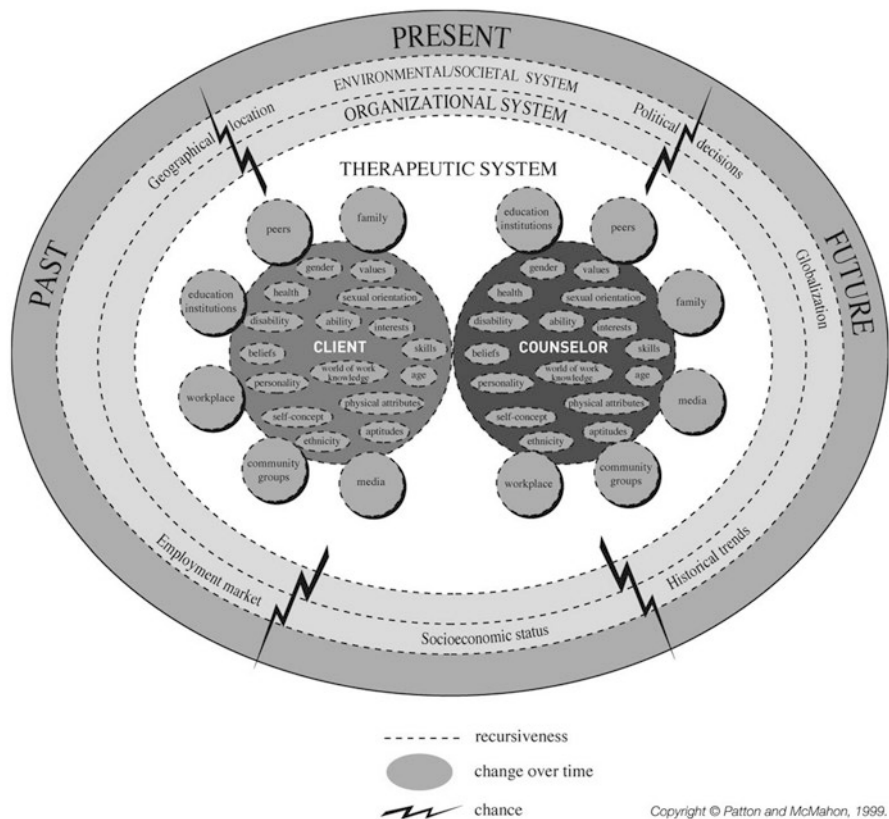


Fig. 5.2 The therapeutic system

(Krumboltz, p. 61). Utilising ELT to provide an explanation of learning is an example of the STF’s meta-theoretical capacity to integrate other theories.

Just as the STF’s contribution to career theory is guided by the systems map of the STF, so too are its practical applications guided by the systems maps of the therapeutic system (see Fig. 5.2) and the school system (see Fig. 5.3). Indeed, McMahon and Patton (2017) describe the STF as a conceptual and practical map. The systems maps of the therapeutic system and the school system provide a lens through which to conceptualise at the macro-level career counselling and career education in schools respectively. The STF’s application to career counselling, career assessment and career education will be briefly considered.

Career Counselling

The systems map of the therapeutic system (see Fig. 5.2) provides a visual depiction through which career counselling may be conceptually understood at the macro-level. It demonstrates the individual system of the client in recursive interaction

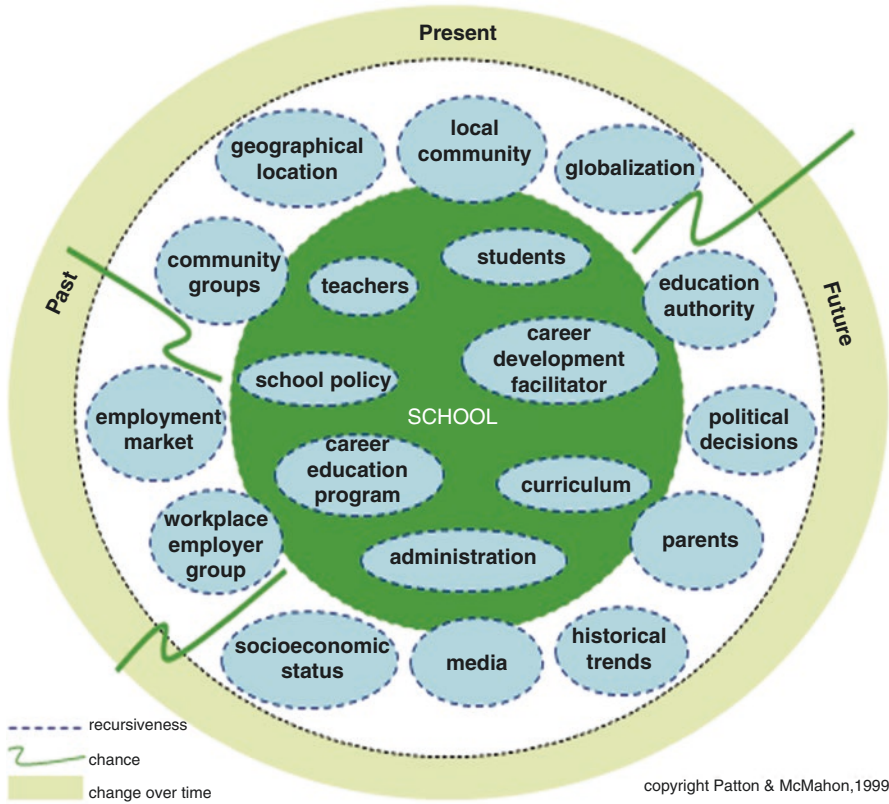


Fig. 5.3 The school system

with the individual system of the career counsellor within the context of a counselling setting such as an organisation (e.g., a clinic or private practice) and the broader environmental-societal system. The therapeutic system is also located within the context of past, present, and future time. Thus, at the macro-level, career counselling is depicted as a complex culturally and contextually based interaction.

Foundational to the STF’s application to career counselling is an understanding of its core theoretical constructs of the individual, systemic thinking, recursiveness and story. As depicted in Fig. 5.2, career counsellors must take an individual in context view of their clients while at the same time also remaining aware of their own systems of influence and their potential impact on career counselling. They must also be aware of the influence of the organisational and environmental-societal systems in which their work occurs and in which clients’ careers are constructed. By facilitating a narrative process, career counsellors assist clients to tell stories that connect them with their systems of influence and in turn career counsellors also come to learn about the complex and recursive nature of the client’s system of influences. Thus, at a practical level, career counsellors facilitate a narrative process

through the use of story that assists clients to think systemically about their careers and to identify themes and patterns located within and between stories.

Systems thinking and the systems map of the therapeutic system offer possibilities of interventions with influences from the broader system to achieve good outcomes for clients (see Arthur and McMahon 2005). For example, career counselling with a couple, advocacy with an organisation or government department, or including the involvement of a family may be enacted with the permission of the client and in their best interests in order to achieve a desirable outcome. In the therapeutic system, career counsellors aim for a client-counsellor relationship that demonstrates the Rogerian principles of empathy, unconditional positive regard and genuineness (Rogers 1951), which, in turn, establishes a mattering climate where clients feel valued and listened to (Schlossberg et al. 1989).

Story is at the heart of the STF's application to career counselling and is central to the story telling approach (McMahon 2005; McMahon and Watson 2010, 2012a, 2013) to narrative career counselling that is a direct application of the STF. The core STF constructs of connectedness, meaning making, agency, reflection and learning (McMahon 2005; McMahon and Patton 2017) are evident in the story telling approach which

encourages individuals to engage in a reflective process (reflection) during which they tell their stories in relation to the systems of influence within which they live (connectedness), begin to understand how identified influences have impacted on their story (meaning making), identify themes and patterns evident within and across stories (learning), and, as a result, play a more active role in constructing their future identities and career stories (agency) (McMahon et al. 2015, p. 151).

Preliminary research has investigated how the core constructs manifest in the story telling approach (McMahon et al. 2012a) and McMahon and Watson (2012a) have provided some guidelines regarding three levels of story crafting questions that may be used by career counsellors, specifically questions on (a) content and experiences, (b) connectedness and subjective experience, and (c) identification of themes and patterns. The story telling approach (McMahon and Watson 2010, 2012a, 2013) and its core constructs are also reflected in the application of the STF to career assessment.

Career Assessment

The STF has provided a stimulus for the development of a number of career assessment instruments that have also served to stimulate research. In the context of this chapter, a detailed description of each instrument is not possible so they will be overviewed. The most widely known and used instrument is the *My System of Career Influences* in its adolescent (McMahon et al. 2017a, b) and adult versions (McMahon et al. 2013a, b). The MSCI most closely reflects the visual and conceptual framework of the STF.

Both versions of the MSCI involved an extensive process of international collaborative research. The adolescent booklet and facilitator's guide was developed

over a four-year and three-stage trialling process across two nations (Australia and South Africa; see McMahon et al. 2017a) and the adult MSCI was developed over a 2 year period across three nations (Australia, England and South Africa; see McMahon et al. 2013b) and sampled adults in a variety of large public sector, private practice and private organisational settings. The MSCI (Adolescent version) has been translated into languages such as Cantonese, French, German, and Dutch, and the adult version has been translated into Italian. The MSCI is a booklet which guides users through a process of reflection on their career influences from each of the STF's subsystems and culminates in the drawing of a personalised systems map of career influences and making an action plan. To accommodate cultural diversity, clients are given an option about where they want to begin their reflection; for example, with individual, social, or environmental-societal influences. Such personalised maps ideally then become a focus for dialogue in small groups or in career counselling. Demonstrating theory, practice, research integration, the MSCI adult version has been used for example, in case study research in higher education in South Africa (McMahon et al. 2012b; Watson and McMahon 2009) and the adolescent version has been used in research with a range of participants internationally (see the section below on research). Further, McMahon et al. (2012b) demonstrated how other forms of career assessment could be integrated within the meta-framework of the MSCI process. This South African research demonstrated how the MSCI could assist clients to consider their intrapersonal strengths in the context macro-systemic barriers.

The STF provides a map for narrative systemic interviewing as reflected by applications of McMahon's (1992) original contextual model that predated the STF and included structured peer interviews and adolescent-parent interviews. The *Career Systems Interview* (CSI; McIlveen 2003; McIlveen et al. 2003) is an example of a semi-structured interview process that is theoretically grounded in the STF and invites users to reflect on all of its influences. Prior to completing the CSI, McIlveen (2015) suggests that clients are familiarised with the STF map. Subsequent to completing the CSI, clients are encouraged to write an autobiography either using My Career Chapter (McIlveen 2006) qualitative assessment process (discussed in the following subsection) or in other forms of career assessment. Initial research (McIlveen et al. 2003) with a small group of undergraduate students using a pre-post experimental-group design suggested the potential usefulness of the CSI in career counselling. McIlveen (2015) suggests that beginning the interview with the environmental-societal influences that are less personal in nature, before moving to social and individual influences may enhance rapport building. A further example of narrative systemic interviewing is that of a sentence completion exercise (McIlveen et al. 2005) based on the STF that stimulated the development of My Career Chapter (McIlveen 2006). More recently, the STF has guided the development of systemic interviews (Integrative Structured Interview; ISI) based on the results of quantitative career assessment instruments (McMahon and Watson 2012b; Watson and McMahon 2015). To date ISIs have been developed for the *Self-Directed Search* (Holland 1985) and Super's *Work Values Inventory – Revised* (Zytowski 2006). These interviews provide an opportunity for clients to make meaning of their results

in the context of work and life experiences. Preliminary research suggests that clients find the ISIs beneficial (e.g., McMahon et al. 2018).

My Career Chapter (MCC; McIlveen 2006) was developed as an STF based resource for narrative career counselling to assist clients to write “an autobiography of their career” (McIlveen and Patton 2007, p. 76). In a series of seven steps, clients reflect on their systems of influence and write their responses as a short story that is subsequently read out loud and then edited by the client from different voices such as themselves 5 years earlier (McIlveen 2015). Clients can also identify themes in their stories and make meaning of them (McIlveen & Patton, p. 76). Similar to the MSCI and its parent framework, the STF, the MCC may also be used with other forms of career assessment that may then be integrated into the MCC story. Preliminary research suggests that the MCC is useful in career counselling (McIlveen 2007; McIlveen et al. 2005) The MCC has also been used as a stimulus for reflective practice and self-supervision for career counsellors (Patton and McMahon 2014; McIlveen and Patton 2010).

Career Education

The systems map of the school system (see Fig. 5.3) depicts the complexity of career development work in schools and its potential challenges for career development practitioners. The school system depicts schools as subsystems of a broader system of influences that may impact curriculum and the place of career education in that curriculum but may also be resources for schools and career development practitioners and beneficiaries of career education. The school system also depicts schools as systems in their own right, comprising many sub-systems of which the career development practitioner is one.

Traditionally, career development in schools has been the responsibility of a lone practitioner who may not have a full-time career development role. Moreover, a persistent and pervasive view of career education as peripheral to the curriculum has tended to marginalise career development services in schools. Viewing career education from a systems perspective, however, suggests that many have a role to play in the effective implementation of career education. In this regard, Patton and McMahon (2014) provide an example of a review process in the form of reflective questions that career practitioners or schools could use to consider the provision of career education. The review is systemic in nature and encourages reflection at the level of the school system, including questions on students’ career development needs, career education itself including who receives it, resource and staffing allocations, the attitude of school administration personnel to career education, and the career development practitioner in terms of their skills and knowledge and their implementation of career education. At a broader systemic level, the review poses questions to guide reflection on parents and the wider school community and their involvement in career education, at the broader level of national and state policies and resource provision, and the context of time such as labour market trends. Application of systems thinking is evident in a recent text on career education that

provides a guide for practitioners in developing and developed countries (McCowan et al. 2017). As evident in the school system and in the McCowan et al. guide, the career practitioner is only one influence in a complex and dynamic system of influences on career education; effective implementation of career education from a systems perspective suggests that many influences have a role to play.

Career Research

The STF contributes to career research conceptually and methodologically. At a conceptual level, the systems map of the research system (McMahon and Watson 2007; see Fig. 5.4) provides an analytical framework that facilitates reflection on the status quo of career research. The map paves a way for critical analysis of career research, its traditions, and its gaps.

Methodologically, the STF draws attention to the potential of soft systems methodologies that are essentially qualitative, interpretative and participative and have been little used in the field of career development (McMahon and Patton in press). Soft systems methodologies employ a structured approach to research that takes a holistic view of systems and appreciates differing perspectives on a topic (Mingers

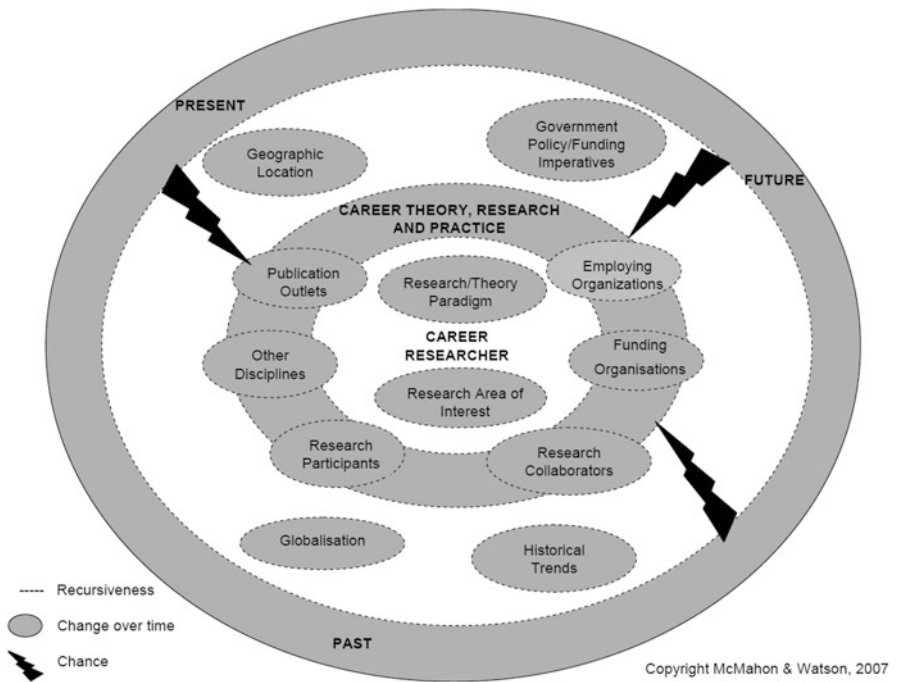


Fig. 5.4 The Research System

and Taylor 1992) and the construction of meaning (Flood 2010) and may give a voice to people who have been marginalised or not heard (Rajagopalan and Midgley 2015).

Examples of soft systems methodologies include action research and participatory systems mapping. The STF through its qualitative career assessment instrument, the MSCI, provides a means by which each research participant constructs a map of their system of career influences. Subsequently systems maps stimulate dialogue (Sedlacko et al. 2014) with peers and/or career counselling. This process stimulates learning and encourages participants to identify outcomes and actions they will take (Sedlacko et al. 2014). Both versions of the MSCI have been facilitative of international research with diverse participants including adolescents from low socioeconomic backgrounds (McMahon et al. 2008), black students from a South African township (Albien and Naidoo 2017), female black South African university students (McMahon et al. 2012b), Hong Kong Chinese college students (Yim et al. 2017), Swiss German upper secondary school Baccalaureate students (Schindler and Schreiber 2015), and adults with substance abuse disorders (Sgaramella et al. 2015). These research examples are reflective of the STF's application across countries and cultures.

The applications of the STF attest to Samuel Osipow's (1983) prediction that by applying systems theory to career development

elements of the social, personal, and economic situation within which individuals operate may be more explicitly analysed, and the relationships of the larger systems to one another may be more clearly understood than in traditional approaches to behavior, which may tend to emphasize only one major segment of the individual or the environment (p. 178).

Conclusion

The meta-theoretical Systems Theory Framework of career development demonstrates that it is able to meet Krumboltz's (1996) criteria for a "useful theory" (p. 27) through its application of systems mapping and systems thinking. Its comprehensiveness enables all potential influences on career development to be identified and explained accurately. The STF has demonstrated repeatedly its capacity to integrate with other theories, its adaptability to change, and, its many practical applications in career counselling, career assessment, career education and career research.

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Chapter 6

Decision-Making Models and Career Guidance



Itamar Gati, Nimrod Levin, and Shiri Landman-Tal

Abstract Career choices are among the most important decisions people make during their lifetime. However, many individuals experience difficulty in making such decisions, and changes in the world of work in the twenty-first century have only increased the complexity involved in exploring career alternatives and choice. The aim of this chapter is to demonstrate and analyse procedures for making career decisions using the concepts of decision theory. In the proposed approach, the goal of career guidance and counselling is helping clients make *better* career decisions. The first section of this chapter focusses on the unique features of career decisions. The second section briefly describes three major types of decision models. To highlight the advantages of the using decision theory, the third section demonstrates the utility of prescriptive decision-making models as a way to facilitate career-decision-making. In the fourth section, the applicability and potential benefits of prescriptive models are illustrated by the PIC model (Prescreening, In-depth exploration, and Choice; Gati I, Asher I: The PIC model for career decision making: prescreening, in-depth exploration, and choice. In: Leong FTL, Barak A (eds) *Contemporary models in vocational psychology*, Erlbaum, Mahwah, pp 7–54, 2001a. Mahwah: Erlbaum.). The fifth section addresses the often-heard criticism that decision theories are “too cognitive” by discussing how non-cognitive factors have been integrated into the career-decision-making approach and applied to career guidance and counselling. The chapter concludes by exploring the implications of decision theories for career guidance and counselling.

Keywords Career adaptability · Career indecision · Career decision making · Decision theory · Decision models

Career choices are among the most important decisions people make during their lifetime. These decisions involve selecting a major, an internship, or special training, as well as what jobs to apply for and what offers to accept, and whether and when to

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quit one's job or take a new position (within as well as between organisations). These choices have significant long-term implications for individuals' lifestyles, emotional welfare, economic and social status, as well as their sense of personal productivity and contribution to society. For these reasons, individuals are preoccupied with career choices during many stages of their lives (e.g., Campbell and Cellini 1981; Di Fabio et al. 2015; Gati et al. 2001; Super 1980). However, whereas most people are capable of making career choices without too much difficulty, many do report some difficulties (e.g., Amir et al. 2008; Brown and Rector 2008; Gati 2013; Gati and Levin 2014; Osipow 1999; Rounds and Tinsley 1984; Tinsley 1992).

The complexities of the twenty-first century's world of work, with its frequent changes, have made career paths multi-decisional, unpredictable, and unstable (Blustein 2006; Bright and Pryor 2005; Gelatt 1989; Krieshok et al. 2009; Mitchell et al. 1999; Savickas 2000, 2005; Van Esboreck et al. 2005). In today's world of work, the empowerment of individuals as autonomous decision-makers is fundamental for successful career development. This often involves helping individuals acquire decision-making skills that can facilitate their transition decisions.

In this chapter, we present the view that the goal of career guidance and counselling is helping clients make *better* career decisions. To achieve this goal, it is essential to have a theory that focuses on understanding the career decision-making *process*. We therefore conceptualise career decision-making from a decision-theory approach, which regards career choices as the outcome of a process. This chapter shows the importance of designing procedures for making career decisions in situations requiring choices among alternatives throughout individuals' life span and demonstrates how the goal of making satisfying career choices can be better achieved if a systematic decision-making model is adopted. If this is done, and this theory is adapted to the special features of career decisions, researchers can transform theoretical knowledge into practical interventions, providing career counselors with tools for helping deliberating individuals carry out the career-decision-making process actively, effectively, and efficiently.

Decision theory has been reviewed and recognised as a potential frame of reference for career-decision-making for more than half a century (e.g., Brown 1990; Gati 1986, 2013; Gelatt 1962; Jepsen and Dilley 1974; Kaldor and Zytowski 1969; Katz 1966; Mitchell and Krumboltz 1984; Pitz and Harren 1980; Sauer mann 2005). Nevertheless, these theoretical discussions and conceptualisations have rarely been translated into specific practices aimed at guiding counselees towards making effective decisions. Hence, one of the goals of this chapter is to contribute to the ongoing dialogue between decision theories and the actual needs of counselees, as they are described by experienced career counsellors.

The first section of this chapter focuses on the unique features of career decisions, highlighting the features of twenty-first-century world of work and their effects on the complexity of the process and the challenges it involves. The second section briefly describes three major types of decision-making theories, discussing their advantages and disadvantages. It is suggested that one of the reasons that decision theory has not yet been embraced as a framework for career guidance and counseling is that normative decision-making models, which were dominant in decision theories for many decades, assume overly rational decision-makers and are

often too abstract to be applicable to actual, real-life career-decision making. To highlight the potential of the career decision-making approach, the third section demonstrates the utility of prescriptive decision-making models, which minimise the disadvantages and maximise the advantages of decision theory as a framework for facilitating career-decision-making. In the fourth section, the PIC model (Prescreening, In-depth exploration, and Choice; Gati and Asher 2001a) is presented to demonstrate the applicability and potential benefit of prescriptive models. The fifth section addresses the often-heard criticism of decision theories as being “too cognitive” by discussing how non-cognitive factors have been integrated into the career-decision-making approach and applied to career guidance and counselling. The chapter concludes by exploring the implications of decision theories for career guidance and counselling.

The Special Features of Career Decision Making

Decision theories are applicable to situations with (a) an individual who has to choose a course of action, (b) a set of objectives the individual seeks to achieve, (c) a set of courses of action or alternatives to choose from, and (d) a set of attributes and factors that the individual takes into account when comparing and evaluating the alternatives. These general features are present in most career-decision situations (Gati 1986; Gati and Asher 2001a; Katz 1966; Pitz and Harren 1980). Harren (1979), for example, defined a decision-making model as “a description of a psychological process in which one organises information, deliberates among alternatives, and makes a commitment to a course of action” (p. 119). Career decision-making models focus on analysing the various ways that individuals make career decisions.

Decision situations differ in many ways, including (a) the importance of the decision, (b) the amount, complexity, and accuracy of the information needed for it, and (c) the type and complexity of the information processing required. Accordingly, different decision situations require different processes to reach an optimal decision (Gati and Levin 2014; Levin and Gati 2014). Decision situations also differ across one’s life span. Insufficient cognitive maturation, for example, limits individuals’ ability to choose the best major in high school compared with college (Levin et al. 2018). This section discusses these properties as they bear on career decisions. Describing the special features of career choice is of major interest because it can help us find ways to overcome the difficulties involved in making these choices.

The Importance of the Decision

Career decisions are regarded as important because they express individuals’ identities and have a long-term impact on many life domains. When people make important decisions (e.g., to accept a job that involves moving to another city), the consequences associated with the various courses of action may vary significantly, in

contrast to the smaller variance in the consequences of the alternatives in less-important decisions (e.g., going to work by car or train). On this continuum, many career decisions may be found at one pole, as most career choices affect several aspects of life, including aspects that are not directly related to one's work, such as one's ability to actualise one's desired lifestyle, relations with significant others, social networks and environment, as well as one's sense of meaning and well-being.

The emphasis, in Post-modern Western culture, on values such as self-fulfilment and personal satisfaction enhances individuals' awareness of the impact of their choices on their general well-being. Savickas (2000) referred to the post-modern world of work as a setting for personal meaning-making and self-management. The consequences of making an inappropriate career decision may therefore be significant, both financially (e.g., one's investment in the training) and psychologically (e.g., the difficulty of making a change in a significant aspect of one's life and the frustration deriving from an unsatisfying job). Hence, it is not surprising that career-decision-making is a stressful process for many people and is often associated with increased levels of anxiety (Gati and Levin 2014; Lipshits-Braziler 2018).

The Information Needed for Career Decisions

Information About Career Alternatives Career decisions involve making a choice among (many) alternatives, with the outcomes often uncertain. Indeed, the most prominent feature of career choice in today's world of work is the large variety of alternatives from which to choose. Furthermore, in the twenty-first century, a career is a lifelong process with many steps and numerous transitions (Hirschi 2018; Lent 2018), which are not necessarily focused on attaining a specific goal, but rather on coping with unpredictable changes and opportunities (Blustein 2006; Bright and Pryor 2005; Pryor and Bright 2011; Savickas 2000; Van Esboreck et al. 2005). Instead of the traditional linear, progressive image of a career path, the post-modern career path can be described as a path with many junctions, each offering multiple directions to be considered.

On the one hand, the variety of occupations and jobs gives individuals the freedom to look for the alternative most compatible with their preferences, interests, and needs, as well as their skills, abilities, and competencies. On the other hand, the large number of alternatives and the unpredictability of the changes in the work of work increase the complexity of decisions. Schwartz (2004) described this paradox as "sometimes more is less"; instead of benefiting from the abundance of options, individuals often face an overload of choice, requiring a vast expenditure of effort (Schwartz 2004). Therefore, prescreening aimed at compiling a short list of promising alternatives worth further exploration is desirable (Gati and Asher 2001b). Indeed, a list of 7 (± 2) such alternatives was regarded as optimal by deliberating individuals (Gati et al. 2003) as well as career counselling experts (Gati and Ram 2000; Shimoni et al. 2018).

The large number of potential career alternatives, the nuances distinguishing them, and the frequent changes they undergo, require collecting a vast amount of information about many alternatives and then processing it. Moreover, the challenge of dealing with this overload of information is compounded by the within-occupation variance (i.e., the variations in the attributes of jobs in the same occupation). A marketing expert, for example, can work at an office analysing consumer markets, or travel and meet customers face to face. Furthermore, organisational characteristics (e.g., organisational culture) can also significantly affect the attributes of a particular job (Sauermaun 2005). Thus, individuals must weigh the advantages and disadvantages of occupational alternatives after a detailed exploration of the promising alternatives, based on in-depth information gathering (Gati and Asher 2001a; Germeijs et al. 2012).

Finally, most occupational information is subjective, vague, and difficult to define or quantify (e.g., the degree of prestige of a given occupation or job). The various sources of information (e.g., television, Internet) differ significantly in quality and credibility, and can often further increase the complexity of using the information, leading to difficulties in making career decisions (Gati et al. 1996b). The ongoing changes in the world of work, as well as in the individual's preferences, make it more difficult to retrieve reliable information from various sources, thereby increasing the uncertainty involved in career decision-making and development (Gelatt 1989).

Information About Individuals' Career Preferences The aim of career decision making is to locate the alternative that best matches the individual's goals and characteristics. Therefore, in addition to collecting occupational information, the process also requires people to clarify their preferences and their capabilities. This is a challenging task that poses a significant difficulty for many deliberating individuals (Gati et al. 1996b). Unlike occupational information, which can be obtained by exploring the environment, clarifying one's career-related preferences requires intensive introspection, and it is only rarely that individuals begin their career-decision process with a set of well-defined, crystallised, and cohesive career preferences. Furthermore, biases impact individuals' perceptions of the world of work as well as of their preferences and abilities (Gati et al. 2006a; Levin and Gati 2015). People's preferences are constrained at least to some extent and are highly influenced by situational components (Payne et al. 1993), including the methods used for eliciting interests (Crites 1969) and preferences (Payne et al. 1999).

Indeed, one of the major challenges of career counselling is to help clients define their preferences (Mitchell et al. 1999; Osipow 1999). To do so, counsellors first need to choose among competing theoretical models describing different ways of conceptualising preferences. Among the terms used for this purpose are vocational interests (e.g., Savickas 1999), personality types (e.g., Holland 1997), work values (Katz 1966; Zytowski 1970), needs (Dawis and Lofquist 1984), and occupational attributes (Prediger and Staples 1996) and career-related or work-aspect preferences (Gati 1986; Pryor 1981). Counsellors can use various techniques to elicit preferences, such as helping the client transform past experiences (successes and failures, satisfying and frustrating experiences) into specific preferences (or dislikes) for

work activities and an awareness of their skills, capacities, interests, and values (Van Esboreck et al. 2005). Self-exploration is a life-long activity that requires individuals to engage in active exploration to develop vocational and self-schemas (Krieschok et al. 2009).

Using the individual's preferences for the decision-making process assumes that these preferences are stable and coherent. Sauermaun (2005), for example, suggested that individuals' articulated preferences have three components (based on Payne et al. 1999): (a) their relatively stable preferences called *core preferences*; (b) *situational components*, which are the systematic effects of specific contexts on expressed preferences; and (c) *random error*, which can also affect expressed preferences. Although much research on career choices is focused on the first category—core preferences—there is evidence that situational components of preferences may also have significant effects on career decisions (see Sauermaun 2005, for an extended discussion). Recently, however, there have been indications that young adults' aspect-based career preferences are quite stable after two years (Gati and Gutentag 2015), and the fact that recommendations derived from them have predictive validity after six years (Gati et al. 2006b) provides additional, although indirect, support for the informativeness of aspect-based career preferences.

The Adaptability of Different Approaches to Information Processing

Obtaining relevant information is the first step towards making a career decision. The next step, processing the information (called “true reasoning” by Parsons 1909), is a multifaceted, complex process as well, and a source of difficulty for many deliberating individuals (Amir et al. 2008; Kleiman and Gati 2004). Individuals, however, differ in the ways they make career decisions (Gati et al. 2010; Harren 1979).

Gati and his colleagues postulated 12 dimensions along which each individual's unique way of making career decisions can be described (Gati and Levin 2012). These include, for instance, holistic vs. analytical information processing, speed of making the final decision, tendency to procrastinate, dependence on others, and the use of intuition. Six of the 12 dimensions are associated with adaptability in career decision-making: comprehensive information gathering, internal locus of control, little procrastination, greater speed in making the final choice, less dependence on others, and little desire to please others (Gati and Levin 2012). Cross-cultural studies have validated these findings and have shown that individuals with a more adaptive decision-making profile had significantly fewer career decision-making difficulties and were at a more advanced career decision status (Guan et al. 2015a, b; Willner et al. 2015).

Moreover, there is increasing evidence that individuals' cognitive abilities to make decisions are constrained in various ways. This phenomenon, called *bounded rationality* (Simon 1981, 1990), refers to human beings' limited ability to solve problems, which is manifested in their ability to solve only one problem at a time

and process only a limited amount of information, so that they perceive and process information selectively and in a biased manner (e.g., Kahneman and Tversky 1984; Tversky and Kahneman 1974, 1981). These cognitive limitations have a significant effect on the individual's functioning as a decision-maker, especially in complex decision situations (Bendor 2004), which include most career decisions.

One cause of complexity is the process of comparing alternatives, due to the difficulty of collecting the relevant information about occupations. Since both occupational alternatives and individuals' preferences can be described by numerous attributes (e.g., level of income, level of physical activity, mathematical ability required, level of independence, prospects for professional advancement), comparing the alternatives and assessing their compatibility with personal attributes is a cognitively demanding task. To deal with this complexity, decision theories propose facilitating the decision-making process by dividing it into well-defined, concrete steps.

Contextual Factors

Contextual factors can influence individuals' career decisions by shaping their career-related preferences or by constraining the available occupational information. Social-learning approaches to career-decision-making emphasise the importance of social variables in shaping occupational preferences, as well as limiting career opportunities (Krumboltz 1979). According to Krumboltz's instrumental learning model, individuals learn by noticing the positive or negative consequences of their actions, and hence their self-perception and preferences are dependent on the experiences, information, and feedback provided by their social surroundings (Mitchell and Krumboltz 1984). Indeed, social constructionism and psychological constructivism have been widely recognised and emphasised in recent career theories (Savickas 2011; see Chap. 2 of Mark Savickas in this book).

Bright et al. (2005) demonstrated that four distinct categories capture the factors perceived by individuals as highly influential in their career decisions. These include media, teachers, family and friends, and chance events. Their findings support the claim that both proximal and distal contextual factors influence individuals' career decisions. Among the influences of one's broader social setting are social stigmas and biases, which can be a source of perceived and actual social constraints on an individual's career choice. For example, research shows that stereotypic gender roles are still evident in the differences between the career choices of women and men (e.g., Anker 1998, 2001; Badgett and Folbre 2001; Gadassi and Gati 2009; Gati and Perez 2014; Gottfredson 1981).

In the immediate social context, significant others (e.g., nuclear family, friends) also have an important impact on individuals' career choices (Phillips et al. 2001). These people are among the providers of information for adolescents and young adults about occupations in general and specific jobs in particular. The information they contribute may promote the decision-making process, but it may also be selective, based on a limited variety of occupations and jobs, and biased by partial

and subjective knowledge. This may affect individuals' occupational preferences and increase their tendency to remain in their original socio-economic status (Sauer mann 2005). In some cases, significant others put pressure on an individual to choose the occupation they think is best (Phillips et al. 2001). In other cases, however, the deliberating individuals themselves might have an excessive need for others' approval, and actively look for their input and guidance in the decision-making process (Sauer mann 2005).

Models of Decision Making

Career-decision-making models focus on particular decision points along the developmental continuum. These models provide a defined framework for decision-making that can fit relevant situations. Whereas career development theories tend to focus on developmental changes in individuals' preferences, self-efficacy perceptions, and decision skills, career decision-making models focus on the actual processes involved in making a career choice (i.e., "true reasoning", Parsons 1909). From this perspective the outcomes of previous decisions and the developmental changes are the inputs for subsequent decisions.

General decision-theory-based models have been adapted to the unique features of career choices on the basis of the assumption that disassembling the complex decision problem into its basic components allows the individual to focus on each component separately and thus respond more adequately, leading to a better choice (Pitz and Harren 1980). Three types of decision-making models have been proposed for this purpose: normative, descriptive, and prescriptive (Bell et al. 1988). In this section, the advantages and disadvantages of each type are discussed.

Normative Models

Normative models of decision-making are intended to describe procedures for making optimal choices. Normative models are based primarily on evaluating each possible alternative according to two variables. The first one is the *subjective utility* (i.e., the value) of the outcomes associated with each alternative in terms of the expected benefits and costs attributed to it in line with each individual's goals and preferences. The second is the estimated *probability* or likelihood that choosing a specific course of action will lead to a particular outcome (Brown 1990; Mitchell and Krumboltz 1984; Pitz and Harren 1980). Different procedures can be used for estimating these two variables and aggregating them to locate the alternative with the highest expected utility. Most normative models share the assumption that the advantages of an alternative can compensate for its disadvantages, a trade-off that led to calling them "compensatory models" (e.g., Katz 1966; Pitz and Harren 1980; Zakay and Barak 1984).

There are two widespread compensatory models (Mitchell and Krumboltz 1984; Pitz and Harren 1980; Sauermann 2005). In the Weighted Additive Model, or Multi-Attribute Utility Theory (MAUT), an importance weight is assigned to each attribute of the different alternatives; the sum of the products of the weights multiplied by the utilities of the attributes represents the overall value of the alternative. In the Subjective Expected Utility (SEU) model, the utilities associated with the alternatives are weighted by the probabilities of achieving these utilities, so as to locate the most rewarding alternative.

Normative models entail not only mathematical assumptions but also significant philosophical and psychological assumptions about human nature. In particular, normative models describe the behaviour of perfectly rational decision-makers: they strive to choose the most beneficial alternative and obtain all information relevant to the decision, and they are capable of considering all possible outcomes of the choice, estimating the value of each alternative and aggregating these values into a composite variable. However, empirical evidence demonstrates that human beings are not perfectly rational decision makers. When the number of potential alternatives is large (as is the case in many career decision-making situations), normative models require collecting extensive information and making many computations, and thus are often inapplicable without a computerised system and database (Janis and Mann 1977; Pitz and Harren 1980).

In addition, in the case of important decisions, not everything can be compensated for. For example, individuals who believe that they have no artistic talent are unlikely to want to become artists even if all the other aspects of the occupation perfectly match their preferences (e.g., independence, flexible hours, prestige). Indeed, people find making explicit tradeoffs emotionally uncomfortable (Hogarth 1987). Moreover, assumptions that are critical for the validity of the computation outcomes (e.g., that the attributes used for comparing the alternatives are independent of one another) are often violated (Gati and Asher 2001a). Therefore, normative models may serve as reference points for a perfect theoretical decision process but are irrelevant for everyday decisions as well as for effective decision counselling. Indeed, one of the major reasons counsellors often avoid using decision models is the difficulty of applying these models, which demand time and effort for mastering the mathematical calculations involved (Mitchell and Krumboltz 1984).

Descriptive Models

A second type of decision theory-based models, *descriptive models*, investigate and document the ways people actually make decisions, and highlight the gaps between the ideal, normative decision-making procedure and the actual process in real-life situations. Considering the various types of decisions people make, and the great individual differences in the ways people make decisions (e.g., Gati et al. 2010; Guan et al. 2015a, b), it is not surprising that there is no single, generally-agreed-upon theory for describing the ways people actually do so. Instead, various findings have emerged from different studies, shedding light on the principles that guide everyday human decision-making.

Herbert Simon (1955) was granted the Nobel Prize for his *satisficing* theory, which refuted the basic criterion for rational decision-making: the assumption that people strive for maximisation (i.e., selecting the best option). According to Simon, maximisation requires complex information processing, which people's mental resources cannot cope with. Therefore, they often settle for an alternative that is "good enough", in the sense that it meets or exceeds their threshold requirements for the factors most important to them. Simon suggested that people consider their alternatives one at a time, and choose the first option that is regarded as satisficing. One implication of this strategy is that the chosen alternative, although it may be adequate, is often not the best one.

Interestingly, empirical evidence shows that individuals guided by maximising strategies (according to the normative models) are often less satisfied with the outcomes of their decision than the users of satisficing strategies (Iyengar et al. 2006). Dahling and Thompson (2013) reported similar findings on the detrimental effect of maximising on satisfaction, the degree of perceived fit, and turnover intentions. One explanation that Iyengar and her colleagues offered for this finding is that, as individuals are cognitively unable to compare a large number of alternatives without help, the pursuit of the "best" alternative induces them to rely on external rather than internal standards for evaluating the alternatives. Thus, a maximiser will eventually choose an alternative with the highest objective or perceived utility (e.g., income), rather than subjective utility. An alternative explanation is that maximisation creates unrealistically high expectations, leading to a greater likelihood of disappointment and regret (Iyengar et al. 2006).

Another widely researched aspect of human decision behaviour are the heuristics and biases inherent to many decision behaviours, which contribute to a systematic deviation from normative-rational predicted choices (e.g., Tversky and Kahneman 1974, 1981). Montgomery (1983, 1989) proposed that one of the methods people consistently use to simplify the decision-making process is framing it as a *search for dominance*, in which one alternative can be seen as dominant over the others (i.e., it is as good as the other alternatives in some aspects and better than the others in at least one aspect). The search for a dominance structure is in fact a process of hypothesis testing, in which the dominance of a promising alternative is tested. If this alternative is found to be dominant, it is chosen, and the decision process is complete. If, however, the decision-maker finds that the dominance structure is violated, he or she will restructure the given information by neutralising, de-emphasising, or counterbalancing the disadvantage(s) found for the promising alternative so as to create a dominance structure (Montgomery 1983, 1989).

Gati and his colleagues' recently developed a model of career decision-making profiles, presented in the previous section, designed to represent the various aspects involved in career decisions. Findings about individual differences in the degree of endorsement of adaptive decision-making behaviours reveals that people do not employ purely rational decision procedures. Indeed, individuals are subject to consistent cognitive biases that simplify complex decisions and often lead to less than optimal choices. It is important to realise this because it indicates the problems and

biases that should be addressed in career guidance. Nevertheless, as descriptive models are unable to serve as a reference point for justifiable decisions, natural decision behaviours cannot be used as a basis for adequate decision-making. This explains why descriptive decision models, like normative models, have not been embraced by either career counsellors or theorists about career decisions.

Prescriptive Decision Models

Although normative decision-making models outline procedures for optimal decision making, as reviewed above, they have been shown to be inapplicable to many real-life situations due to the partial information and limited cognitive resources of people coping with decision situations. In contrast, descriptive models, which focus on understanding the ways people actually make decisions, reveal biases, inconsistencies and limited rationality, which lead to less than optimal decisions. Prescriptive models incorporate the advantages of the normative and descriptive models, while minimising or circumventing their disadvantages. They outline a method of making better decisions, while acknowledging human limitations and corresponding with the intuitive ways individuals make decisions. While descriptive models are evaluated by their empirical validity and normative models by their theoretical adequacy, prescriptive models are evaluated by their pragmatic value—their ability to facilitate individuals' decision-making (Bell et al. 1988). Prescriptive models give up the unattainable goal of making an optimal rational decision (maximising the expected utility; e.g., Pitz and Harren 1980; Zakay and Barak 1984), and aim for the realistic goal of making satisficing choices (Phillips 1994). In the context of career decision making, the goal of prescriptive models can be summarised as providing a systematic process for *making better career decisions*, instead of striving for completely rational ones (e.g., Gati 1996, 2013; Gati and Levin 2015).

Prescriptive Models for Facilitating Career Decision Making To be useful for deliberating individuals and career guidance counsellors, a prescriptive model should have the following desirable features. First, it should be attractive and intuitively appealing—straightforward and comprehensible. Second, it should be feasible—compatible with the counsellor's and counselee's finite cognitive ability as well as limited resources, including time, financial means, and effort. Third, it should avoid complicated calculations on the one hand and fuzzy abstractions on the other. Fourth, the model should strive for maximal simplification and minimal effort, but at the same time minimise the potential loss resulting from a non-comprehensive search process, which may lead to a gap between the expected utilities of the chosen alternative and the optimal one. Fifth, to satisfy the needs of different decision-makers, the prescriptive model should offer multi-level complexity, allowing each individual to modify the process so as to arrive at the most suitable level of complexity (e.g., focusing on only a few relevant factors for comparing the alternatives, skipping steps).

To demonstrate the potential usefulness of prescriptive models for facilitating career decision-making, we briefly review the PIC model (Prescreening, In-depth exploration, Choice; Gati and Asher 2001a, b) in the next section. This prescriptive model encompasses the entire career-decision-making process, starting from a large number of potential career alternatives to the point of making a decision. The PIC model was designed to possess the desirable features for an applicable prescriptive model, as outlined above, by offering a systematic method of making career decisions that is adapted to the unique features of such decisions.

The PIC (Prescreening, In-depth Exploration, and Choice) Model

One major element of the complexity involved in career decision-making is the large amount of potentially relevant information. A goal of a prescriptive model could thus be reducing the amount of information to be collected and processed, thereby helping individuals focus on relevant information. One way to reduce this complexity is to divide the process into distinct stages. Research indicates that, when dealing with decisions, having a large number of potential alternatives, people often intuitively divide the process into two stages: (a) screening, where the unacceptable alternatives are screened out; and (b) choice, where the best alternative is chosen from the remaining ones (Beach 1993; Beach and Potter 1992; Paquette and Kida 1988; Potter and Beach 1994). A similar pattern has been observed in the way deliberating individuals actually collect information required for making career decisions (Gati and Tikotzki 1989).

Gati and Asher (2001a) proposed refining the division into stages by dividing the process into three main stages, each with different goals and strategies: (a) *Prescreening* the potential set of career alternatives based on the individual's preferences, to locate a small and thus manageable set of promising options; (b) *In-depth exploration* of the promising alternatives, resulting in a short list of suitable ones; and (c) *Choice* of the most suitable alternative, based on a detailed comparison among all the suitable ones (Gati and Asher 2001a). Individuals can begin the process at any of the stages of the model, in accordance with their progress and status in the process. Nevertheless, the model promotes a dynamic and flexible decision process and encourages moving back and forth between stages in order to reflect on and update previous decisions. In the following sections the rationale underlying these stages and the processes involved in each one are detailed.

Prescreening the Alternatives

The goal of the first stage, prescreening, is reducing the number of potential alternatives and identifying a manageable set of promising ones (i.e., seven or less; see Miller 1956; Gati et al. 2003) that deserve further, in-depth exploration.

The prescreening process suggested here is based on the elimination-by-aspects strategy (Tversky 1972), which has been shown to be compatible with the ways people actually make career decisions (Gati and Tikotzki 1989). This model was adopted as a prescriptive framework for career decisions and, after being adapted to the unique features of career decisions, was called *sequential elimination* by Gati (1986).

In accordance with the sequential-elimination model, the first stage of the PIC model for career decision-making process is introspective and involves self-exploration. The search for promising career alternatives is initiated on the basis of individuals' preferences in the career-related aspects that are most important to them. The term *career-related aspects* (Gati 1986, 1998; Pryor 1981, 1982) refers to variables that can be used to describe individuals' preferences and abilities for career alternatives (e.g., income, length of training, physical work, mathematical skills). However, due to cognitive and material limitations, it is impractical to consider all possible aspects; rather, the individual must choose a subset of aspects to focus on. The list of important aspects for guiding the prescreening process should include objective constraints (e.g., disabilities), personal competencies (e.g., creativity, technical skills), and core personal preferences (see also Brown 1990; Mitchell 1975). The use of a large set of career-related aspects for prescreening is recommended for eliciting an accurate refinement of each individual's occupational preferences. It should therefore lead to a better person-environment fit than fit based on vocational interests alone (Gati 1998; Gati et al. 1998a).

The first step of the sequential elimination process is to elicit the relative importance ranking of the career-related aspects. An aspect may be considered important because the individual prefers either a high or a low level of this aspect in his/her occupation. For example, the aspect "work environment" might be chosen as important either because of the individual's preference for working "only outdoors" or because the individual does not want to work outdoors and so prefers "only indoors". The next step in the sequential elimination process will be carried out according to the rank orders of the aspects' importance.

In the second step of the sequential elimination process, individuals shift their focus to within-aspect preferences. Each career-related aspect refers to a feature that occupational alternatives possess in different amounts (e.g., length of training). Descriptive labels can be used to represent within-aspect qualitative variations (e.g., for "amount of travel", a great deal, a lot, somewhat, a little, hardly ever), allowing the individual to express her preferences in the particular aspect with a higher resolution. Once these levels have been elicited, they can be compared to the features of occupations, but only if the same qualitative levels are used for describing occupations. Occupations can also be described by a range of levels (instead of a single most representative level) to include within-occupation variations (e.g., variations in working at unconventional hours for a private-practice family physician vs. an emergency-room physician).

The sequential elimination model also distinguishes among three facets of the individual's preferences: (a) the importance of each aspect, (b) the level regarded as *optimal*, and (c) additional, less desirable but still *acceptable* level(s), representing the individual's willingness to compromise, with all the other levels considered

unacceptable. An individual might think, for example, that it would be ideal to have a job that does not require working with tools and instruments but might be willing to compromise on a job that requires such work only a small percentage of the time. This explicit elicitation of additional acceptable levels is important. First, it explicitly guides the individual to consider his or her willingness to compromise in that aspect, thus directing his attention to a more realistic perspective on the world of work and career choice (Gati 1993; Gati and Asher 2001a, b; Gati et al. 1998b). Due to the importance of career choice in life, many people find it difficult to consider alternatives different from their image of the ideal career (Gati 1993; Gati and Winer 1987; Gottfredson 1981). Accordingly, Gadassi and Gati (2009) found that using career-aspect-based preferences and a sequential elimination model for prescreening can reduce gender bias in occupational choices.

Theoretically, compensatory normative models can also be used for narrowing the list of promising occupations at the prescreening stage. However, using compensatory models at this stage has several major shortcomings. First, compensatory models are based on comparing all alternatives across all aspects; thus, if they are applied in the prescreening stage, they would require collecting and processing of an enormous amount of information, an impossible task when dealing with a large number of career alternatives without a computerised database and a friendly search module. Second, as discussed earlier, in important decisions such as career decisions, not all disadvantages can be compensated for. This claim was supported by a recent longitudinal study which found that the reported occupational choice satisfaction of individuals who chose an occupation recommended to them by a system based on a sequential-elimination-based search six years earlier was significantly greater than that of those whose present occupation was not included in the recommended list (Gati et al. 2006b). However, choosing an occupation from a recommended list derived from a compensatory-model-based search was not correlated with greater occupational choice satisfaction.

The outcome of the prescreening stage is a short list of promising options. Although sequential elimination seems adequate for this stage descriptively, empirically, and theoretically (Gati 1986, 1996; Gati et al. 2006a, b; Gati and Tikotzki 1989), it also has some shortcomings. Its major disadvantage is the risk that a potentially suitable alternative might be eliminated because of a slight mismatch in a single aspect. This risk can be reduced by adding a safety-check mechanism, namely, *sensitivity analysis*. This means re-examining the implications of changes in the individual's inputs to the prescreening process (i.e., preferences) on the outcome—the list of promising career options. Such re-examination involves (a) rethinking and confirming the range of acceptable levels reported for each aspect (“What if...”), (b) understanding why certain alternatives considered intuitively appealing before the systematic search were eliminated during the sequential elimination process (“Why not..?”), and (c) locating alternatives that were discarded due to only a small discrepancy in a single aspect and considering the possibility of compromising in that aspect (“almost compatible options”). This important opportunity to re-examine and adjust the inputs to the decision process is possible only because the process has been divided into distinct stages.

In-depth Exploration of the Promising Alternatives

The goal of the second stage of the PIC model is to identify a few alternatives that are not only promising but actually suitable for the individual, in two ways: first, that the alternative indeed fits the individual's preferences, and second, that the individual can meet its requirements and actualise it (Gati and Asher 2001a). In this stage, the individual redirects his or her attention and focuses on the exploration of occupational/career alternatives. The decision-maker zooms in on one promising alternative at a time, and collects additional, comprehensive information about it. It is important that the individual focus on the *core aspects* of the occupation, which are the crucial factors for describing its essence (Gati 1998; Gati et al. 1996a). For example, "physical treatment of people" and "working in shifts, at unconventional hours" are among the significant aspects of working as a paramedic and are therefore considered the core aspects of this occupation, whereas "using verbal ability" is not an essential part of the job and therefore is not considered a core aspect.

Once the attributes of the alternative have been found suitable to the individual's preferences, the second goal of the in-depth exploration stage is to investigate the probability of actualising the occupational choice, by considering the individual's previous studies, grades, and achievements, as well as time and financial constraints, to see if they fit the prerequisites of the occupation and its requirements for success. If an occupation does not meet one or more of the above conditions, it should be removed from the list of suitable alternatives. Consequently, the in-depth exploration stage should result in a short list of alternatives that are not only promising, but indeed suitable.

Choice: Locating the Most Suitable Alternative

The in-depth exploration stage usually results in more than one alternative, so that a third stage is required for choosing the most suitable one. It is important to be aware of the uncertainty involved in actualising the preferred option. It is therefore highly recommended that the individual concludes the decision-process not by choosing a single most suitable alternative, but rather by rank-ordering the most suitable alternatives, so as to have a fall-back plan if obstacles emerge in the implementation of the most suitable one.

The choice stage involves a detailed, refined comparison among the alternatives under consideration, focusing on both the differences among them and the trade-offs between the advantages and disadvantages of each. The small number of relevant alternatives at the choice stage makes it possible and desirable to use models that aim at identifying the optimal—most suitable—alternative, using compensatory-model-based estimates. Clearly the number of alternatives affects people's choice strategy; when faced with a small number of alternatives, people tend to use compensatory decision strategies, unlike the situation of facing multi-alternative decision tasks, when they prefer non-compensatory strategies (for a review, see Payne et al. 1993).

Since the alternatives under consideration at this stage are all suitable, the compromises involved in a trade-off between the desirable and the undesirable features of the alternatives (the essence of compensation) are subtler. In addition, as the number of alternatives under consideration is small, the decision-maker can now carry out a detailed evaluation of each alternative across all aspects without facing an overload of information. A number of compensatory-based models have been developed for individuals deliberating about career-related decisions, but none of them is free of shortcomings. A brief review of three of these models is presented to demonstrate their potential contributions to the choice stage, and the drawbacks of each are discussed to highlight the need to design a better procedure for this stage. Katz's (1966) adaptation of the weighted additive model to career decisions is an example of a quantitative compensatory model, based on work values as representing the individual's career preferences. The alternative with the highest score is regarded as the best. Despite the comprehensible systematic method it offers, the numerical estimates required of the decision-maker and the complex sequence of calculations the model involves, some of which may appear arbitrary, decrease its appeal (Gati and Asher 2001a). In addition, the highest score, which is supposed to indicate the best occupation for the individual might be misleading because a small change in even a single factor considered, or the consideration of an additional factor or aspect, might change the rank order (Gati 1986).

Janis and Mann's (1977) decisional balance sheet is an example of a qualitative compensatory model (Brown 1990; Mitchell and Krumboltz 1984) that may be used for comparing career alternatives. It involves listing the factors to be considered when evaluating an alternative, assigning qualitative labels (+ for advantage and – for disadvantage) to the attributes of each alternative, and choosing the one with the highest overall evaluation. Janis and Mann's balance sheet method can be particularly efficient when the comparison involves more than two alternatives. Its simplicity, however, necessitates the omission of some significant aspects of the comparison, such as the differential importance of the various factors and differences in the size of the gaps between the desirable attributes and the characteristic level of the alternative under consideration. A more sophisticated method is therefore recommended.

One method of this type is based on Montgomery's (1983, 1989) description of the *cancellation* operation, included in his *search for dominance* descriptive model, described earlier in this chapter. Montgomery assumed that when a small number of alternatives described along multiple aspects are compared, the chance for the emergence of absolute dominance by one of the alternatives is small. To arrive at dominance, individuals use different operations, taking into account the dependency among the attributes. Specifically, attributes that the individual perceives as advantageous and as related to one another (e.g., "teaching and instructing" and "using verbal ability") are grouped and used to counterbalance an advantage of the other alternative for a different combination of attributes, which are equivalent in desirability (e.g., "higher salary" and "better fringe benefits").

Montgomery's (1989) approach can be adapted to create a systematic comparison process based on three components: (a) the resemblance among aspects within

an alternative, which is used to create a within-alternative grouping of the aspects; (b) the relative importance of each aspect for the individual (using three categories—high, medium and low); and (c) the size of the gap between the two alternatives for a specific attribute (again, divided into three categories—small, medium, and large). For example, the advantage of alternative X over Y in income and economic security can be counterbalanced by the advantage of Y over X in job prospects and promotion opportunities. After the decision-maker cancels out combinations of aspects, the net advantages of one alternative will show that it is more desirable (Gati and Asher 2001a).

Using the PIC Model in Career Guidance and Counselling

The PIC model integrates descriptive models with compensatory normative models by assigning them to different stages of the decision process with appropriate adaptations, turning the complex process of career choice into a sequence of well-defined tasks resulting in a rank-order of alternatives that best fit the individual. Despite the systematic, structured prescription for career decision-making provided by the PIC model, implementing this model is still a non-trivial task without the support of a counsellor or a computerised system. The rationale for the model was therefore used for developing an Internet-based career guidance system called Making Better Career Decisions (MBCD, Gati 1996). MBCD supports the user during the prescreening stage and includes various options for sensitivity analysis. It also includes a database with occupational descriptions (and videos) for assisting the individual at the in-depth exploration stage. The system provides continuous guidance and personal feedback based on monitoring the user's input, allowing the user's reported preferences to be reconsidered and revised, thus creating an interactive dialogue.

MBCD is now available both as a self-help tool and as a tool to be used between counselling sessions at career counselling centres (e.g., Gati and Asher 2001b; Gati and Levin 2014). In the latter case, the counsellor evaluates the client's readiness to use the system, prepares the client for it, and analyses the entire dialogue and its outcomes (all of which are included in the printed summary provided by the system) with the client. Empirical evidence has shown the effectiveness of *MBCD* for decreasing individuals' decision-making difficulties (Gati et al. 2001), facilitating the career-decision-making process (Gati et al. 2003), and a six-year follow-up study found that following *MBCD*'s recommendations about promising occupations increased occupational choice satisfaction (Gati et al. 2006b). The Internet is flooded with career-related self-help sites differing in quality (e.g., Grupe 2002), so empirical validations such as those carried out for *MBCD* are crucial for providing the deliberating individuals surfing those sites with the high-quality help they need.

Evaluating Prescriptive Decision Models

When theoretical models are used for guiding career decisions, it is very important to evaluate their adequacy beyond empirical validation. Whiston (2011) proposed evaluating interventions in terms of their validity and their effectiveness, as well as their cost-benefit ratio. Two approaches are particularly useful in evaluating the quality of the decisions. The first argues that a decision model should be evaluated according to the individual's degree of satisfaction with the outcomes of the decision based on the model, namely occupational choice satisfaction. The second approach claims that as an individual's eventual occupational satisfaction is affected by many unpredictable and uncontrollable factors, decision models should not be evaluated by their outcomes but rather by the quality of the process that led to these outcomes (Katz 1979; Mitchell and Krumboltz 1984; Phillips and Jome 2005). Thus, the goal should not be making the right decision, but rather making the decision right.

As prescriptive models are process-centred, a process-oriented evaluation seems to be the better approach. However, assuming that the right process increases the probability of making the right choice, a comprehensive evaluation of the validity and utility of a model can involve three complementary issues: (a) Does the model facilitate and improve individuals' decision-making processes? (b) Does it lead to greater occupational satisfaction in the future? (c) Do individuals generalise the model and apply it to future career decisions? A review of the research supporting the PIC model from these three perspectives can be found in Gati and Asher (2001a) and Gati and Levin (2014).

Going Beyond the Models: The Role of Non-cognitive Factors

One of the major criticisms of decision-making models is that they over-emphasise the cognitive components of career choices, while neglecting the emotional factors that play a major role in decisions of this kind. Indeed, decision theories, which emerged within the field of cognitive psychology, tend to focus on the deliberate, conscious processes involved in making decisions. Nevertheless, non-cognitive, non-conscious, emotional aspects of career-decision-making are also considered integral to the decision process, both theoretically and in counselling. These factors may be manifested particularly in (a) the role of intuition in the decision-making process, (b) the interaction between decision models and decision-making styles, and (c) the integration of the cognitive and the non-cognitive components in counselling interventions, regarding them as complementary rather than as competing factors. These issues are discussed in the following sections.

The Role of Intuition

One of the most controversial issues associated with career-decision-making is whether it is an intuitive process or a conscious, mostly rational one. Krieshok's anti-introspective view (1998, 2001) typifies the claim that most human decision-making occurs at a non-conscious level and cannot be reconstructed or reflected upon by introspection (Krieshok et al. 2009). Krieshok claimed that decision models that require individuals to articulate their preferences and values often lead to errors, confusion, and even a false description of these preferences, resulting in the exploration of inappropriate alternatives during the decision process. A more efficient method for improving career decisions, according to this approach, is relying on intuition. When information is collected during active experience, thus enriching the content on which the individuals' judgments rely, it generates intuitions that are likely to lead to better-informed decisions.

Nonetheless, intuition and systematic exploration can be viewed as complementary rather than contradictory. Appropriate career decisions should be made actively, systematically, and consciously, yet intuition does have an important role to play in several phases of the process. Intuition affects individuals' sensitivity to the importance of each aspect, their preferred levels in the aspect, and their willingness to compromise. Intuition can also serve for the overall evaluation of the final decision (i.e., the individual's confidence in it). It is particularly important at the choice stage of the *PIC* model. Congruence between the outcomes of the systematic decision process and the intuitively appealing occupational alternatives can strengthen the individual's confidence in her choice, while incongruity should call for a re-examination of the decision process and the intuitive choice to locate the reason(s) for the incompatibilities, reconcile reason and intuition, and arrive at a confident decision. Future research should test the relative informativeness of the outcome of the systematic process and that of intuition, in cases of incongruence.

According to this approach, criticism of decision-making models (e.g., Krieshok 1998, 2001) can be regarded as reflecting the challenges and intricacies involved in adopting decision models for use in career decisions. While purely rational decision processes are insufficient for the purpose, we suggest that career guidance counselors should encourage a *systematic* process of career decision-making. The challenge is to explore and refine the prescriptive models and tailor interventions to each individual's traits and decision-making style.

Embracing Uncertainty and Ambiguity

The outcomes of career decisions are rarely perfectly predictable. They are typically made under uncertainty in the sense that individuals are not guaranteed that they will be able to actualise all their choices. In general, there is some likelihood that the

chosen alternative will not be satisfying. Career decisions are also made under ambiguity in the sense that individuals typically do not know what their chances of success are. Thus, whereas uncertainty relates to the probability of success, ambiguity relates to the decision-makers' knowledge of this probability.

Gelatt (1989) highlighted the unpredictability and ambiguity of the post-modern information society, claiming that they can be dealt with only if decision-makers embrace uncertainty and demonstrate flexibility in response to change. Under such circumstances, rational decision-making strategies are insufficient, and intuitive thinking is required for acting adaptively. Bright and Pryor (2005) later adopted the notion of uncertainty and highlighted the complexity of the range of influences on career development and the incompleteness of our knowledge at the time a decision is made. Building upon studies that show that unplanned events influence career behaviour more than previously thought (Krumboltz and Levin 2010), and understanding that individuals are complex, ever-changing, dynamic systems, Pryor and Bright (2011) highlighted the value of dynamic adaptations and continual change throughout individuals' career development.

Indeed, uncertainty is involved in many components of the career decision-making process, including the individual's preferences—the relative importance of the aspects, the optimal level, as well as one's willingness to compromise (as reflected in the range of levels regarded as acceptable), which might change in the future. Occupations are likely to be different—certain occupations will disappear, while others, unimagined at present, may emerge (Hirschi 2018; Lent 2018). Moreover, the attributes of typical jobs in many occupations may very well change (e.g., ICT may decrease the need for travelling).

Uncertainty is generally regarded as undesirable but unavoidable; hence individuals tend to take measures to minimise it as much as possible. During prescreening, uncertainty concerning one's future preferences can be taken into account by considering not only the optimal level (e.g., *no travel*), but also additional acceptable levels (e.g., *little or moderate travel*). During in-depth exploration, the information gathered can be used to decrease uncertainty about one's fit with a promising alternative. Finally, during the choice stage, uncertainty about actualisation can be dealt with by selecting a second-best alternative(s) and, if possible, planning to pursue several suitable alternatives simultaneously (e.g., applying to several universities or jobs).

Career Decision-Making Styles

A common factor in the use of different decision models in career counselling is framing the decision problem analytically and dividing the decision task into stages, thus allowing the client to focus on one task at a time (Pitz and Harren 1980). Clearly, the deliberative analytic procedure involved in this approach may be more appealing to individuals with a more rational-analytical decision-making style than to those with a more intuitive or impulsive one. Indeed, decision-making style applies to individuals' behaviour throughout the career decision-making process and not only at the final choice stage (Phillips and Paziienza 1988). Models of career

decision-making *styles* describe the unique way each individual typically approaches and makes career decisions (Harren 1979). Information about this style allows tailoring the intervention to the needs of each individual.

Several classifications have been suggested to describe the different types of decision-makers along a continuum ranging from spontaneous, intuitive decision-making to a rational, systematic style. Harren (1979) distinguished among three career-decision-making styles: rational, intuitive, and dependent. Scott and Bruce (1995) distinguished among five styles—rational, avoidant, intuitive, dependent, and spontaneous—while Sagiv (1999) distinguished between those seeking tools and those seeking answers. Bettman et al. (1998) and Sauermann (2005) proposed that individuals can also be classified by their choice goals (maximising decision accuracy, minimising cognitive effort, minimising negative emotions, and maximising the justifiability of the decision). Additional measures for strategies and typologies include those proposed by Arroba (1977), Johnson (1978), Krumboltz (1979), and others; see Table 1 in Gati et al. (2010).

Gati et al. (2010) suggested an alternative, multidimensional model for describing individuals' typical career decision-making behavior. Instead of *style*, Gati et al. (2010) used the term “career decision-making *profiles*” to indicate a complex construct describing an individual's decision-making behaviour, with several distinct dimensions. A 12-dimensional model was proposed for this purpose, with the continuous dimensions (Gati et al. 2010; Gati and Levin 2012) of *information gathering*, (minimal vs. comprehensive), *information processing* (holistic vs. analytic), *locus of control* (external vs. internal), *effort invested in the process* (little vs. much), *procrastination* (high vs. low), *speed of making the final decision* (slow vs. fast), *consulting with others* (rare vs. frequent), *dependence on others* (high vs. low), *desire to please others* (high vs. low), *aspiration for an ideal occupation* (low vs. high), *willingness to compromise* (low vs. high), and *using intuition* (little vs. much). Each dimension sheds light on the individual's way of making career decisions from a different angle.

This diversity in decision styles helps us choose the guidance practices and decision strategies different people will benefit from most. Career counsellors need to use flexible and varied decision models and counselling interventions to best satisfy each client's particular needs and tailor the intervention to the client's personal career-decision-making style (Amit and Gati 2013). By understanding how the client usually makes decisions, the counsellor can better predict the benefit the client may derive from being instructed in various models or procedures. If the client agrees to explore a new style, a coaching role on the part of the counsellor may be appropriate (Chung et al. 2003).

Applying Career-Decision-Making Models Decision-making models can be used for facilitating better career decisions in three complementary ways: (a) by the counsellor in face-to-face situations; (b) as a blueprint for computer-based career guidance systems; and (c) as a learned systematic method for independent implementation. These options are briefly described here.

Face-to-Face Individual Counselling

In their role as decision advisors, career counsellors have the goals of facilitating their clients' decision-making process and helping them arrive at an optimal and feasible choice. To tailor the counselling sessions to the counselee's particular needs, counsellors should begin by assessing each client's current stage in the decision process and the roots of his or her difficulties in making the decision. A variety of theory-based instruments are available for this assessment. The *Career Decision Scale* (Osipow et al. 1976) can be used for an overall assessment of the individual's career indecision. The *Career Decision-making Difficulties Questionnaire* (CDDQ, Gati et al. 1996b), which is based on a well-defined and empirically validated taxonomy stemming from decision theory, can be used for locating the specific focuses of an individual's difficulties in making career decisions. The *Indecisiveness Scale* developed by Germeijs and De Boeck (2002) can be used for measuring the clients' general indecisiveness. The *Emotional and Personality-related Career Difficulties* (EPCD) scale has been developed by Saka and Gati (2007), Saka et al. (2008) to assess the emotional and personality-related causes of difficulties in making career decisions, which are postulated as underlying more prolonged career indecisiveness.

The difficulties arising during the decision-making process can be divided into those stemming from emotional sources involving general indecisiveness (e.g., pessimistic views, anxiety, uncrystallized self-concept and identity; Saka and Gati 2007; Saka et al. 2008) and those from cognitive sources involving more normative developmental indecision (e.g., lack of information about how to make the decision or how to obtain occupational information). Accordingly, different types of counselling intervention can be tailored to focus on treating these emotional and personality-related difficulties (Saka et al. 2008) or addressing cognitive, difficulties associated with information processing. Systematic decision-making models are of the latter type. The counsellor's role is to guide clients through the stages of the decision-making process, encouraging them to play an active and dominant role at each stage. A decision model can be used by the counsellor in two ways: as a way of facilitating a dynamic counsellor-client dialogue and as a way of monitoring the client's advancement in the process (Gati and Asher 2001a; Gati and Levin 2014).

These two types of counselling technique are mutually dependent and complementary; the decision-making process cannot be completed without dealing with the emotional difficulties hindering it, or referring to emotional considerations involved in it, and at the same time it requires a cognitive process of information processing and choice.

Decision Aids: Computer-Assisted Career-Guidance Systems (CACGSs)

Despite the extensive knowledge of expert counsellors, career decisions require the synthesis of vast amounts of information that no person can retain. Now, in the second decade of the twenty-first century, this information can be stored and processed

and easily retrieved from Internet-based career information and guidance systems. The rapid development and spread of computer and information technologies in recent decades has made digital information widely accessible, offering interactive systems that can support the decision-making process 24/7. First, by incorporating relevant, evidence-based tools, computers can help assess individuals' needs, including the difficulties they face in making career decisions (Gati et al. 1996a, b), their dysfunctional beliefs about career decision making (Hechtlinger et al. 2018), and the adaptiveness of the way they make career decisions (Gadassi et al. 2012; Gati and Levin 2012). Second, they can provide clients with recommendations and guidance on how to best proceed in the career decision-making process (which may include a recommendation for face-to-face career counselling; Amir et al. 2008). Finally, computers can compensate for the limitations of human cognition by offering vast computational abilities as well as immense databases and efficient search engines (Katz 1993). This permits the presentation of information in a friendly, comprehensible format, using graphics, audio, and video technologies. Most presently available CACGS can be used for both the prescreening stage of locating promising options and the in-depth exploration stage of collecting comprehensive information about these options (Payne et al. 1993). More recently, decision-support systems were developed also for the choice stage (e.g., www.cddq.org). The benefits and the pitfalls of the use of the Internet for career guidance and counselling were reviewed by Gati 1994; Osborn et al. (2011).

Although CACGS have many advantages, they have significant disadvantages as well. The self-help CACGSs found on the Internet vary greatly in quality. With their claim of guiding the individual through an important and meaningful career decision, unreliable and biased systems may mislead the user and even cause harm. In this context it is important to be aware of clients' tendency to regard computer output as objective and "absolutely true". The utility and empirical validity of the system are therefore extremely important, especially when it is used without the monitoring of an expert counsellor. The increased use of self-help systems makes it important to define standards for quality career-guidance systems, thus reducing the disadvantages of CACGS (Gati 1994, 1996; Offer and Sampson 1999; Sampson et al. 2001).

One of the important challenges for the future development of CACGS is to upgrade interactivity by developing systems that will be able to monitor not only the user's inputs (e.g., the degree of cohesiveness of one's career preferences; Shimoni et al. 2018), but also the system's recommendations (Gati and Ram 2000; Gutentag et al. 2018). An ideal CACGS should be able to provide a personal diagnosis that resembles a counsellor's initial diagnosis: the system should identify the user's career maturity and readiness to use it, assess the client's decision-making style, cognitive level and specific needs, and accordingly provide the individual with a personally tailored dialogue.

Importantly, most CACGS do not aim at supplanting professional career counsellors, but rather at supporting and facilitating the counselling process. Such systems are typically used between face-to-face counselling sessions. A printed output that summarises the outcome of the interaction between the client and the system, and the recommendations received, can be very useful in facilitating the integration of this type of instrument into the counselling process. Empirical evidence indicates

that CACGS are most effective when used with the guidance of a counsellor, rather than as stand-alone self-help tools (Osborn et al. 2011; Harris-Bowlsbey and Sampson 2001). As CACGSs focus on the cognitive aspects of the decision rather than the affective ones, face-to-face counselling is not redundant.

Decision-Making Models as a Systematic Method for Self-Help

This chapter focused on the notion of career development as a continuous process including multiple decisions. The necessity of dealing with a variety of decisions along one's career path, as well as other multi-alternative decision situations, calls for acquiring and internalising decision skills. Promoting informed career-decision-making is a generally-agreed-upon goal (Phillips 1992). This challenge has two components—increasing access to relevant information and increasing the individual's ability to process the information for making the decision. Formal educational systems, counselling programs at universities, and training programs for unemployed individuals can and should contribute to this purpose by including strategies for dealing with complex decision situations among the basic skills they teach. Indeed, people have increasingly become aware of the need to teach decision-making strategies (e.g., Baron and Brown 1991). Thus, CACGS, face-to-face counselling, and instruction in systematic decision-making complement rather than compete with one another; combining them seems to be the most effective and beneficial way to promote career decision making.

Conclusion

This chapter discussed the potential of the decision-theory perspective to help us better understand the career-decision-making process and facilitate better career decisions. Recent reviews and discussions (e.g., Gati 2013; Gati and Levin 2014, 2015; Krieshok et al. 2009; Sauermann 2005; Van Esboreck et al. 2005; Phillips and Jome 2005) have highlighted the increasing awareness and acknowledgment of the need to focus on specific aspects in the career decision-making process, in addition to the developmental circumstances in which they are made (which is the focus of the career-development theories; Osipow and Fitzgerald 1996), and the notion of person-environment congruence (elaborated by P-E Fit theories). Thus, the three perspectives—decision theory, development theories, and P-E fit—appear to complement each other from both the theoretical and the practical point of view. The unique contribution of the decision-making perspective is in presenting a systematic tool for a flexible process that can increase the individual's ability to make the decision right.

Career counsellors and deliberating individuals have access to a profusion of instruments that can provide important information relevant for both. However, there is still a need for further developments of the theoretical foundations of career

decision-making, and for strengthening the mutual enrichment between theoretical knowledge and the hands-on experience of career counsellors, to better reveal the actual processes involved in making career decisions and suggest designs for decision aids. The objective, as discussed in the chapter, should not be the unattainable goal of helping clients make purely rational decisions, but rather helping them make better career decisions through a systematic process. The combination of theoretical knowledge, the experience of professional counsellors, and the newly available information and communication technologies, should lead to a promising future for the development of innovative models, procedures, and instruments for assisting individuals in becoming adaptive decision-makers while getting ahead along the multi-forked, twisting career paths of the twenty-first century.

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Chapter 7

A Social Cognitive View of Career Development and Guidance



Steven D. Brown and Robert W. Lent

Abstract This chapter summarises Social Cognitive Career Theory (SCCT) and its implications for providing career guidance across the life-span. All five extant SCCT models (interest, choice, performance, satisfaction, and career self-management) are discussed along with meta-analytic and other research evidence supporting hypotheses of each model. The bulk of the chapter presents implications for promoting optimum career development and fostering increased agency for all people, regardless of their life circumstances.

Keywords Social cognitive career theory · Career development · Career guidance

Social Cognitive Career Theory (SCCT), introduced in 1994 (Lent et al. 1994), initially consisted of three interlocking models of career and academic interest development, choice, and performance. These three initial models were developed to explain and predict the conditions under which people develop career and academic interests, make career and academic choices, and achieve various levels of success in work and school. Subsequently, Lent and Brown introduced two additional social cognitive models to the career and educational guidance literatures. The first (Lent and Brown 2006, 2008) focused on work and school satisfaction and well-being, while the most recent SCCT model (Lent and Brown 2013) represents a process-oriented explanation of career self-management—how people direct (or can be helped to direct) their own career and educational behaviours in diverse contexts.

From the outset, the goals of the SCCT models were both theoretical and practical. As a scientific theory, SCCT provides a series of testable hypotheses and models about both content and process aspects of career and educational development.

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From a content perspective, SCCT offers testable predictions about the types of educational and vocational activity domains toward which people will gravitate (e.g., whether to major in math or literature; whether to become a writer or plumber), and how they achieve success and satisfaction in their work and educational pursuits, under diverse social and economic conditions. The process perspective, illustrated by the SCCT self-management model (Lent and Brown 2013), provides testable hypotheses about how people achieve their own educational and career goals under both supportive and challenging conditions—how, for example, people make educational and career decisions (rather than what decisions they make), negotiate transitions from school to work, find and attain suitable employment, manage multiple roles, deal with work-place stresses, and transition from work into retirement.

In addition to being a scientific theory, SCCT was intended to provide career and educational guidance practitioners with research-supported templates for designing remedial and preventive career and educational interventions and for working with students and clients experiencing educational or career difficulties. For example, the choice model was not only designed to direct research on how educational and career choices are made under both favourable and unfavourable conditions, but also to suggest how people can be helped to make optimal work and educational choices even when such choices may be limited by economic hurdles, discrimination, or other conditions. Similarly, the self-management model was intended not only to explain, for example, how people manage the retirement process, but also how people can be helped to better manage such transitions. The self-management model can also be used to design interventions to prevent problems with transitions and other career and educational difficulties before they occur—how, for example, might multiple role difficulties be anticipated and strategies developed to manage them before they occur?

Core Theoretical Constructs

All five SCCT models were developed using Bandura's (1986, 1997) general social cognitive theory of self-regulation and motivation as a theoretical scaffold. As such, all five models, regardless of their focus (on content or process questions) rely fundamentally on three primary social cognitive predictors—self-efficacy beliefs, outcome expectations, and goals.

Self-Efficacy

Self-efficacy refers to people's beliefs about their capabilities in particular performance domains and, according to Bandura (1986, 1997), serves to motivate approach behaviour, foster effort and persistence in the face of difficulties, and

facilitate performance in corresponding domains. Thus, a student with stronger rather than weaker math self-efficacy beliefs will be more likely to approach versus avoid math activities and subjects, put more effort into math pursuits, persist longer when encountering difficulties, and (as a result of choosing, working, and persisting) perform better in math activities.

The math example illustrates an important fundamental characteristic of self-efficacy beliefs—they are domain-specific. For example, the math efficacious individual may not feel as efficacious about his or her social skills. Or one child might feel very efficacious at handling academic tasks well, while another child may doubt his or her academic capabilities. The result, in the latter example, would be that the less academically efficacious child would be more likely than his or her more academically confident peer to avoid academic tasks, put less effort into them, give up more quickly in the face of difficulties, and ultimately (in a self-fulfilling manner) perform less well in school.

Another important characteristic of self-efficacy beliefs is that they are cognitive representations of capabilities that may or may not match actual skills. People attend to, encode, and interpret information from past accomplishments and other indicators of ability in forming self-efficacy percepts. Thus, two people with equal abilities in an area may not process their experiences in the same way—one may discount a success experience by attributing it to an external cause (e.g., luck), while the other may encode it as owing to his or her developing proficiencies. As a result, the first person will hold weaker self-efficacy percepts in that performance domain than the other person. The first person may develop less interest in the performance domain, set less challenging goals, give up more easily in the face of difficulties and set-backs, and report less satisfaction than the equally talented but more efficacious peer.

Research on the relative roles of abilities and self-efficacy beliefs has largely supported these expectations, but with interesting differences when performance and interest are modelled. For example, two meta-analytic investigations (Brown et al. 2008, 2011) found that self-efficacy *partially* mediated the relation of ability indicators to school (Brown et al. 2008) and work (Brown et al. 2011) performance. These results suggest, as predicted by SCCT, that the influence of ability on performance is partially funneled through self-efficacy beliefs, but that abilities still play an important role in work and school performance beyond self-efficacy beliefs. On the other hand, Lent et al. (1994) found that the relation of ability indicators to work and academic interests were *fully* mediated by self-efficacy beliefs—that ability had no unique relationship with interests after controlling for self-efficacy beliefs. Together these findings suggest that self-efficacy may aid the translation of abilities into performance, but subsume the effect of ability on interests. Stated another way, the findings regarding interests imply that an individual with adequate ability in a domain will not develop interests in that domain unless he or she develops correspondingly favourable efficacy beliefs. Thus, for example, a math-talented woman may not develop interests in a math-related college major or occupation if her experiences (and her cognitive processing of them) do not foster correspondingly strong self-efficacy beliefs.

All five SCCT models also emphasise the motivating properties of self-efficacy beliefs. The SCCT content models hypothesise that self-efficacy helps promote academic and career interests (e.g., math self-efficacy leads to math interests), choices (e.g., math interests promote math-related educational and career choices), and performance, persistence, and satisfaction (e.g., math self-efficacy promotes persistence and ultimately success and satisfaction in math-related activities, courses, majors, and occupations). Self-efficacy beliefs also represent a central theoretical construct in the SCCT process model, with the hypothesis that self-efficacy beliefs for various anticipated (e.g., finding an initial job) and unanticipated (e.g., seeking re-employment after a job loss) developmental tasks and challenges will promote approach behaviour, effort, persistence, and increase the likelihood of (but not guarantee) success. Thus, those with strong job search self-efficacy beliefs will be more likely to undertake job search behaviours, put more effort into them, persist longer in the face of failures and, ultimately, be more likely to succeed than will those with weaker job search self-efficacy beliefs.

Outcome Expectations

Outcome expectations represent another central theoretical construct in all five SCCT models. According to Bandura (1986, 1997), outcome expectations refer to a person's beliefs about the consequences (positive, negative, or neutral) of performing a behaviour. Outcome expectations differ from self-efficacy beliefs in that self-efficacy beliefs focus on perceived capabilities (e.g., can I succeed in a math major?), while outcome expectations refer to perceived consequences (e.g., what will happen if I decide to declare a math major?). Outcome expectations can be extrinsic (e.g., receipt of material rewards), social (approval or disapproval of others), intrinsic (e.g., experiencing flow or absorption with a task, feeling value-organisational fit), or self-evaluative (e.g., experiencing pride). Outcome expectations are personal cognitive representations, or estimates, of likely outcomes that may or may not match the outcomes that actually can or will be obtained.

Outcome expectations also have similar motivating properties to self-efficacy beliefs—they foster approach versus avoidance behaviour, effort, persistence, and ultimately, success. However, self-efficacy beliefs and outcome expectations are not redundant constructs; rather, they operate in tandem to predict approach, effort, persistence, and performance better than do either individually. Approach behaviour is facilitated by strong and robust self-efficacy beliefs and positive outcome expectations. To use math as an example again, students will be more likely to become interested in and to declare majors in math or math-related fields if they both believe in their math capabilities *and* envision positive extrinsic, social, intrinsic, and self-evaluative outcomes associated with majoring in math or math-related fields. Self-efficacy is not likely to be associated with approach behaviour (e.g., declaring a math major) in the absence of positive outcome expectations (or in the presence of negative outcome expectations). Likewise, positive outcome expectations are

unlikely to translate into interests and approach behaviour for people who do not see themselves as sufficiently capable. Finally, self-efficacy and outcome expectations are hypothesised to be positively related to one another, especially in situations where outcomes are closely tied to performance.

Goals

Goals represent the third central social cognitive construct in all SCCT models. Goals refer to intentions to engage in an activity domain or to achieve a particular outcome. Goals help people organise, guide, and sustain their behaviour, even in the absence of external rewards or under difficult and less than supporting circumstances (Locke and Latham 2002).

Although goals are central to all SCCT models, they differ somewhat in focus in the various models. In the interest, choice, and process models, they represent choice or activity involvement goals. In these models, persons with robust self-efficacy beliefs and positive outcome expectations in a specific performance domain (e.g., math, job search) will develop goals for further activity involvement (e.g., taking additional math courses, undertaking a job search). On the other hand, the performance model defines goals as standards for personal performance—setting challenging performance goals (which is partially facilitated by strong work or educational task self-efficacy beliefs and positive outcome expectations) can foster performance and sustain effort in the face of difficulties. Work-related goals (e.g., being able to support my family, receive promotions) are the goal mechanisms in the satisfaction model and are also facilitated by goal-related self-efficacy beliefs and positive outcome expectations.

Other Person and Contextual Variables

Self-efficacy beliefs, outcome expectations, and goals do not operate in a vacuum. Rather they function in tandem with other person (e.g., ability, personality traits, gender, race) and contextual (e.g., family socioeconomic status, quality of education, work discrimination) variables to explain and predict the types of interests that people develop, the choices they make, the performance and satisfaction they achieve at school and work, and the developmental tasks they pursue. As will be detailed more fully in our presentations of the SCCT models, these variables are generally hypothesised to operate distally and/or proximally to foster or limit career and educational development. For example, certain personality traits (e.g., conscientiousness) may operate distally to influence the types of learning experiences that subsequently give rise to self-efficacy beliefs and outcome expectations and, ultimately, the interests that people develop, the types of choices they make, and the self-management behaviours in which they engage. Contextual variables (e.g.,

family socioeconomic status) also are hypothesised to operate distally to foster (under beneficial economic conditions) or limit (under conditions of poverty) the experiences that give rise to self-efficacy beliefs and outcome expectations.

Certain person and contextual variables are also seen as having proximal influences on career and educational development. For example, the limited resources available in economically disadvantaged communities may make it difficult for the individuals living in them to find work that matches their interests (thereby making the correlation between interests and choice weaker than it might otherwise be). Further, attending a school with limited career and educational resources may make it more difficult for a student with career exploration goals to undertake career exploration activities.

We now provide a somewhat more detailed explanation of each model, showing how the SCCT core variables operate along with other person and contextual variables to explain and predict the (a) types of interests that people develop and the choices they make (interest and choice models), (b) the levels of performance (performance model) and satisfaction (satisfaction model) they achieve in work and school, and (c) how they manage their own educational and career development (self-management model). We also overview available research on each model, focusing largely (when available) on meta-analytic investigations that combine the findings of many individual studies and, thus, provide a more accurate overall picture of the models' explanatory value. We conclude the chapter by summarising guidance and counselling implications of each model.

SCCT Theoretical Models

Interest and Choice Models

Figure 7.1 integrates SCCT's interest and choice models into a single diagram. According to the interest model, self-efficacy beliefs and outcome expectations regarding different educational and career activity domains (e.g., mechanics, science, music, counselling and helping, selling and persuading, technology) are primary predictors of educational and career interests (patterns of likes, dislikes, and indifferences to career-relevant tasks). In other words, interest in an educational or career domain is likely to blossom when people view themselves as competent (self-efficacious) in that domain and expect that entering and performing in it will lead to more positive than negative or neutral outcomes (outcome expectations). Interests are substantially less likely to develop in domains in which individuals feel insufficiently efficacious and in which more negative or neutral outcomes than positive ones are expected.

Developmentally, children and adolescents are exposed to a variety of different activities and are selectively encouraged or discouraged by parents, teachers, peers, and other socialisation agents to pursue and perform well in certain activities that

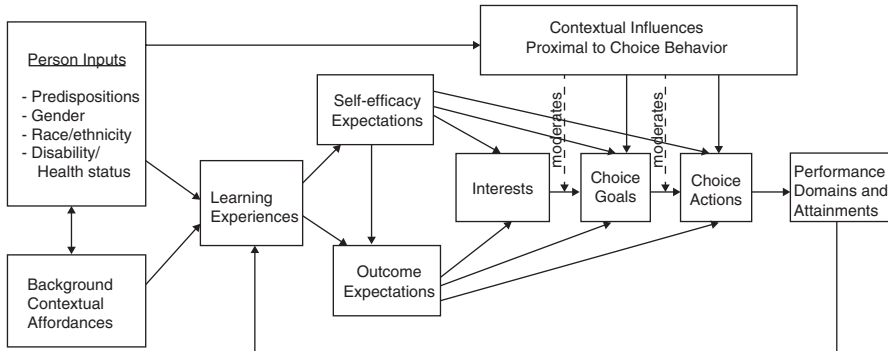


Fig. 7.1 Model of person, contextual, and experiential factors affecting career-related choice behavior. *Note:* Direct relations between variables are indicated with solid lines; moderator effects (where a given variable strengthens or weakens the relations between two other variables) are shown with dashed lines. (Copyright 1993 by R.W. Lent, S.D. Brown, and G. Hackett. Reprinted by permission)

are available to them. By approaching and performing these various activities, receiving ongoing positive and negative feedback, observing the experiences of similar others in these activities, and interpreting their own experiences, children and adolescents develop self-efficacy beliefs and outcome expectations and, consequently, interests to varying degrees in different domains of behaviour. Interests become increasingly stable (Low et al. 2005) through adolescence and promote or deter consideration of different educational and career paths. SCCT assumes that interest stability is largely a function of crystallising self-efficacy beliefs and outcome expectations. However, interests are not perfectly stable and SCCT assumes that interest change is largely a function of changing self-efficacy beliefs or outcome expectations that may have been occasioned by new educational, work, volunteer, or leisure experiences.

As also illustrated in Fig. 7.1, SCCT hypothesises that interests give rise to choices—that all else being equal, people will tend to enter occupations that match their interests. However, not all people are free to translate their primary interests into congruent educational or career choices. Rather SCCT hypothesises that a variety of personal and contextual influences may facilitate (e.g., supportive parents and teachers, adequate economic resources) or limit (e.g., gender or racial discrimination, limited economic resources) individuals' abilities to enter congruent educational and work environments. This moderator hypothesis suggests that the relationship between interests and choices will be stronger under choice-supportive conditions (i.e., ample supports and few barriers) than under less supportive circumstances (few supports and substantial barriers).

These contextual influences also may influence the types of interests that people develop (or fail to develop). For example, ability-congruent self-efficacy beliefs (and positive outcome expectations) are fostered when children have opportunities for activity involvement, observe others like themselves (in terms of gender, race,

and socioeconomic status) reinforced for successful activity involvement, and are themselves encouraged and reinforced for successful accomplishments in a given activity domain (e.g., math, arts, athletics, school). On the other hand, children are less likely to develop ability-congruent self-efficacy beliefs and positive outcome expectations if they lack opportunities for activity engagement, lack successful role models, or live in non-supportive family and educational environments. Thus, math talents, for example, are less likely to lead to math interests and choices in the absence of opportunities and experiences that foster math self-efficacy belief (and outcome expectation) development.

Another noteworthy feature of the SCCT interest and choice models is that they assume that the influence of self-efficacy and outcome expectations on choices is only partially mediated by interests. This implies that, under certain conditions, the impact of interests on choices may be superseded or complemented by other considerations. In particular, self-efficacy beliefs and outcome expectations are expected (in addition to interests) to relate to the types of choices people make, especially when choices are limited by social, cultural, or economic conditions. As Bandura once related to us, people do not labour in coal mines because of an abiding interest in the work (Bandura, personal communication, March 1, 1993). Where the freedom to pursue one's interests is limited, people are likely to pursue work that is available to them and that is culturally supported, provided that they view themselves as efficacious at performing it and that they perceive the work as leading to positive outcomes, such as adequate pay, working conditions, or a desire to honor the wishes of significant others. Tang et al. (1999) reported that interests had no significant relationship to choices in a sample of Asian American students. Rather, choices of these students were most strongly related to choice-related self-efficacy beliefs and family wishes, suggesting, consistent with SCCT, that self-efficacy beliefs and outcome expectations (i.e., fulfilling family wishes) can be more influential determinants of occupational choice than interests under certain cultural conditions.

In sum, SCCT's interest and choice models hypothesise that interests are largely the joint function of self-efficacy beliefs and outcome expectations in particular performance domains. SCCT further hypothesise that self-efficacy beliefs and outcome expectations fully subsume ability indicators in determining school and work interests—ability will not translate into interest unless individuals are exposed, directly and vicariously, to learning experiences that give rise to ability-congruent self-efficacy beliefs and positive outcome expectations. Interests then give rise to interest-congruent choices under supportive personal and contextual influences. However, under less supportive circumstances (e.g., poverty, lack of resources, job unavailability), people may find it difficult or impossible to pursue interest-congruent choices. In such situations, self-efficacy and outcome expectations become the primary determinants of the type of work that people enter.

Meta-analytic evidence largely supports the interest and choice model predictions. For example, Sheu et al. (2010) found that interests, self-efficacy beliefs, and outcome expectations together predicted choice goals across all six Holland themes, though the link from self-efficacy to choice goals tended to be more indirect (via

outcome expectations and interests) than direct. In addition, the relation of contextual supports and barriers to choice goals was largely mediated by self-efficacy beliefs and outcome expectations. More recently, in a meta-analysis focused solely on choice of STEM fields, Lent et al. (2018) found that the interest and choice models fit the data well in samples composed primarily of women as well as men and in racial/ethnic minority as well as majority group members.

Performance Model

The SCCT performance model relies on the same core person constructs (self-efficacy beliefs, outcome expectations, and goals) as does the interest and choice models, but goals in the performance model are operationalised by levels of performance sought by the individual at school and work. Further, performance includes both the level (or quality) of attainment people achieve in educational and work tasks and the degree to which they persist in their work or school tasks, especially when encountering difficulties.

As can be seen in Fig. 7.2, SCCT predicts that educational and work performance involves an interplay among people's abilities, self-efficacy beliefs, outcome expectations, and performance goals. More specifically, ability (as assessed by indicators of aptitude, achievement, and past performance) affects performance attainment in two ways—directly and indirectly. The direct influence of ability indicators on performance, a hypothesis that is overlooked by some critics of SCCT (e.g., Lubinski 2010), suggests that some correspondent level of ability is required to perform competently. Stated another way, self-efficacy cannot compensate for inadequate ability, but can facilitate performance when individuals possess at least minimally adequate ability. The indirect influence of ability on performance is via the influence of ability on self-efficacy beliefs, outcome expectations, and goals. That is, the influence of ability on performance is partially mediated by self-efficacy

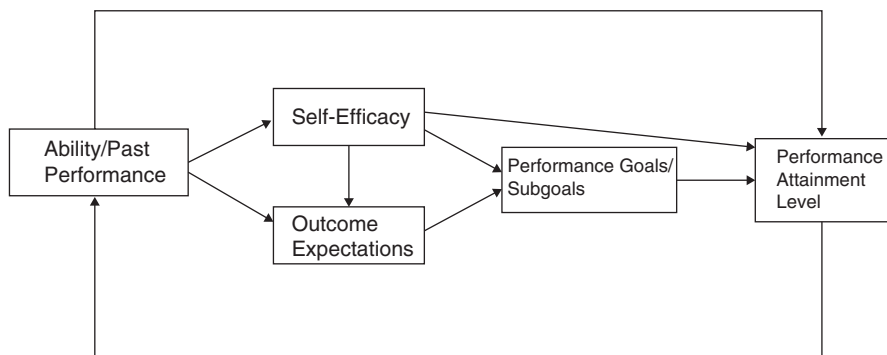


Fig. 7.2 Model of task performance. (Copyright 1993 by R.W. Lent, S.D. Brown, and G. Hackett. Reprinted by permission)

beliefs and outcome expectations as well as by the performance goals that people set for themselves.

While the SCCT interest model assumes that the influence of ability on interest is fully subsumed (mediated) by self-efficacy beliefs and outcome expectations, the performance model assumes that the mediation of ability is only partial. Educational and work interests, regardless of ability, will not blossom in the absence of robust self-efficacy beliefs and outcome expectations. However, adequate school and work performance cannot be attained in the absence of requisite abilities. Also, people base their self-efficacy beliefs and outcome expectations partly on their perceptions of skill, the performances they have achieved in the past, and the outcomes they have received in relevant performance situations. Abilities, self-efficacy beliefs, and outcome expectations, in turn, influence people's performance goals (e.g., aiming for an A in geometry or a certain level of sales at work)—all of which help people to mobilise and sustain their performance efforts.

Finally, although the performance model focuses largely on person variables (e.g., abilities, self-efficacy beliefs, outcome expectations, and goals), recall that people develop their talents, self-efficacy beliefs, outcome expectations, and goals within particular sociocultural, educational, and economic contexts. Thus, the talents, self-efficacy beliefs, and outcome expectations that people develop are intimately related to the features of their environments (e.g., the quality of the education they receive; the role models available to them; the support they receive from parents, teachers, supervisors, and co-workers; their gender-role socialisation experiences; and the educational and work opportunities available to them).

Although the performance model has not received the same amount of research as has the interest and choice models, meta-analytic evidence does largely support most SCCT predictions. For example, early meta-analyses demonstrated that self-efficacy is a useful predictor of school (Multon et al. 1991) and work (Sardi and Robertson 1993) performance. More recent meta-analyses that have included tests of the hypothesised paths among self-efficacy beliefs, abilities, goals, and performance and persistence, have largely supported predictions about the interrelationships among these variables in both educational (Brown et al. 2008) and work (Brown et al. 2011) contexts. Both of these newer meta-analyses showed that the relationship of ability to academic and work performance and persistence was partially mediated by self-efficacy beliefs, though performance goals only explained unique variance in predicting academic persistence. Unfortunately, the relationships between outcome expectations and school and work performance and persistence had been too infrequently studied to be included in these meta-analyses. Nonetheless, the meta-analyses suggest that performance success in school and at work is enabled both by abilities and self-efficacy, which enables people to set challenging work goals and to organise their skills and persist in the face of setbacks.

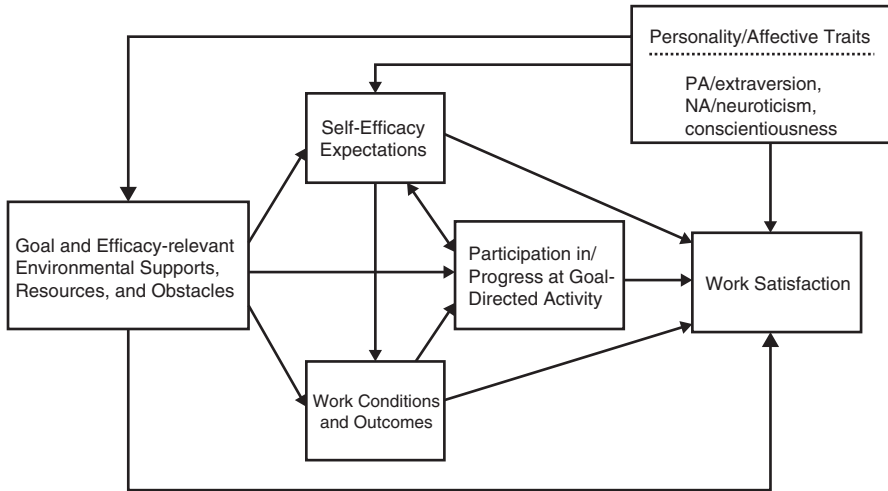


Fig. 7.3 A social cognitive model of work satisfaction. From Lent and Brown (2008), Social cognitive career theory and subjective well-being in the context of work. *Journal of Career Assessment*, 16, p. 10. (Copyright 2008 Sage Publications. Adapted with permission)

Satisfaction Model

As shown in Fig. 7.3, school and work satisfaction (i.e., the degree to which one likes or is happy with his or her school or work environment) is influenced by many of the same core SCCT variables. Specifically, SCCT hypothesises that a central determinant of school or work satisfaction is the degree to which students and workers perceive themselves as making progress at personally relevant goals in school (e.g., being on-time to graduate; receiving specific grades in courses; making the varsity football team) or work (e.g., being able to support my family, having sufficient leisure time, advancing adequately) contexts. Goal progress is facilitated by robust goal-related self-efficacy beliefs and by being in an organisation that provides adequate resources and supports for one's personal goals.

In addition, satisfaction is affected by the student and worker's personality and by work or school conditions. For example, positive and negativity affectivity (two affective dispositions associated with extraversion and neuroticism, respectively) have been found to be consistently related to job satisfaction (e.g., Bowling et al. 2010). Similarly, certain work conditions (e.g., supervisor support, person-value fit, perceived organisational support, workplace incivility, interpersonal harassment) have been linked reliably to job satisfaction (Lim and Cortina 2005; Rhoades and Eisenberger 2002). SCCT hypothesises that personality variables, self-efficacy beliefs, expected and experienced working conditions, and environmental resources influence satisfaction either directly or indirectly, by enabling participation in and progress at goal-directed activities.

Research on the satisfaction model has generally supported the model although all hypothesised paths have not emerged as significant in all primary investigations. The most consistent findings across various studies is support for the hypothesised relationships of self-efficacy beliefs, positive affectivity, and environmental supports (most notably perceived organisational support; Rhoades and Eisenberger 2002) in predicting work satisfaction, either directly or indirectly via goal progress (e.g., Brown and Lent 2016; Duffy and Lent 2009; Lent et al. 2007; Lent et al. 2009; Verbruggen and Sels 2010).

Self-Management Model

SCCT's self-management model (Lent and Brown 2013) seeks to explain and predict the processes by which people manage their own educational and career development in normal as well as trying times. It focuses on the types of tasks that seem central to optimum career and educational development and to managing career and educational transitions and crises, and offers predictions about how involvement and success with such tasks can be promoted. These tasks include, for example, developing decision-making and employability skills, making relevant career and educational decisions, searching for employment, managing multiple life roles, dealing with work-family conflict, managing school to work and work to retirement transitions, and dealing with negative school and work events such as job layoff or harassment (see Lent and Brown 2013, Table 1 for a fuller list of developmental tasks and challenges).

As in all SCCT models, self-efficacy beliefs, outcome expectations, goals, and a variety of contextual and other person variables are hypothesised to play central roles, in this case in influencing people's engagement in self-management tasks (see Fig. 7.4). For example, it is hypothesised that career exploration behaviour will be facilitated when adolescents have (or can be helped to develop) strong exploration self-efficacy beliefs, positive expectations that engaging in career exploration will be worth it (outcome expectations), career exploration goals (which are facilitated by career exploration self-efficacy and outcome expectations), ample supports from others, and few career exploration barriers (e.g., insufficient exploration resources). Certain personality dispositions also can facilitate task initiation and effort, depending on the career self-management task. For example, openness to experience may facilitate career exploration goals, while conscientiousness and extraversion may have a similar effect on job search behaviours (Brown and Hirschi 2013).

As in the other SCCT models, contextual variables are seen as having both distal and proximal influences on task engagement. Distally, students living in poverty may not have adequate resources in their schools to engage in effective career exploration and they may not have been exposed to models who demonstrate a link between career exploration and later career success. Students living in such conditions may not develop the same levels of career exploration self-efficacy as do their peers attending more resource-rich schools. They may also be less likely to see the

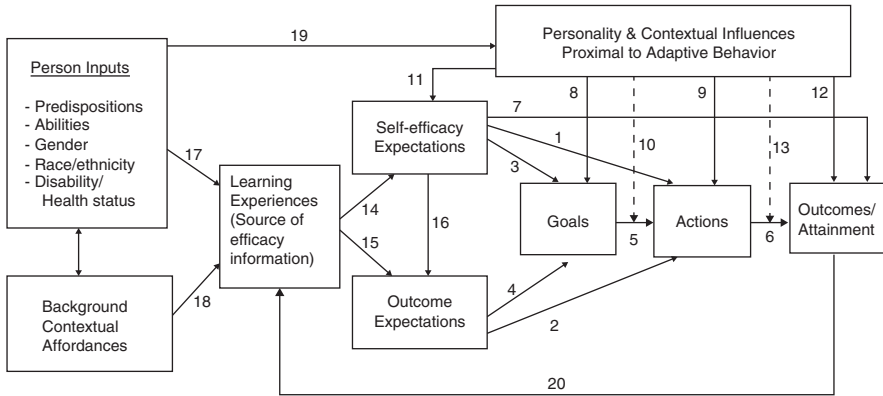


Fig. 7.4 Model of career self-management, Adapted from “Toward a unifying social cognitive theory of career and academic interest, choice, and performance,” by R.W. Lent, S.D. Brown, & G. Hackett, 1994, *Journal of Vocational Behavior*; 45, p.93. (Copyright 1993 by R.W. Lent, S.D. Brown, & G. Hackett. Reprinted with permission)

benefits of engaging in career exploration activities (positive outcome expectations) than do adolescents living in more affluent communities where resources and role models may be more plentiful.

In a more proximal manner, contextual influences may facilitate or hinder persons’ abilities to translate their self-efficacy beliefs and outcome expectations into goals and actions. For example, some students living in poverty may feel that they have the skills to engage in effective career exploration (self-efficacy), see the benefit of doing so (outcome expectations), and have developed career exploration goals (to learn more about careers). Unfortunately, their abilities to turn these goals into actions (i.e., to engage in actual career exploration) may be hindered if their school and community lacks resources that would allow them to pursue their goals. In sum, contextual influences (supports and barriers) may distally influence the types of self-management self-efficacy beliefs and outcome expectations that persons develop. They may also influence more proximally people’s abilities to pursue their self-management goals.

Several recent path-analytic investigations have provided support for the self-management model as it applies to various self-management tasks, including multiple role management (Roche et al. 2017), work place sexual identity management (Tatum et al. 2017), career exploration and decision-making (Lent et al. 2017), job search intentions and behaviours (Lim et al. 2016), workplace participation (among transition youth with epilepsy; Sung and Connor 2017), and retirement planning intentions and behaviours (Wohrmann et al. 2014). Each of these studies showed that task-relevant self-efficacy beliefs and outcome expectations significantly related to each other and predicted task-relevant goals; three studies that included both goals and actions (behaviours) showed that goals were the strongest predictors of actions (Lim et al. 2016; Sung and Conner 2017; Wohrmann et al. 2014). In addition, two studies included conscientiousness as a person variable (Lim et al. 2016;

Roche et al. 2017) and both found that the relationship of conscientiousness to intentions was fully mediated by self-efficacy beliefs. Finally, Dahling et al. (2013) found that financial strain (as a proximal contextual variable) had a direct, negative influence on unemployed participants' job search self-efficacy beliefs and an indirect relationship (via self-efficacy beliefs) on participants' job search outcome expectations and job search goals. Self-efficacy beliefs best predicted job search goals, as hypothesised by SCCT.

In sum, limited available research suggests, consistent with the SCCT self-management model, that goals to engage in six different career self-management tasks were predicted by task-relevant self-efficacy beliefs and outcome expectations, and that goals are strong predictors of actions, at least in the context of job search behaviour, retirement planning activities, and workplace participation among transition-aged youth with epilepsy. Experiences of financial strain may operate as proximal contextual variables that negatively affect unemployed persons' job search self-efficacy beliefs as well as outcome expectations and goals (via diminished feelings of job search self-efficacy). Finally, conscientiousness, as a proximal person variable, affected multiple role management (Roche et al. 2017) and job search (Lim et al. 2016) goals only indirectly via self-efficacy beliefs—suggesting that low levels of conscientiousness may be an impediment to developing the types of robust self-efficacy beliefs that seem to be critical in the multiple-role management and job search processes.

Applications for Career Guidance

Applications of the Interest and Choice Models

Promoting Career Aspirations and Expanding Options at Younger Ages Young children typically have a limited grasp of their capabilities and possible career paths. As a result, their career-related aspirations are typically somewhat narrow and stereotypical, especially for those with limited access to role models, resources, and experiences. We think that SCCT may be particularly useful for interventions designed to help children expand their career aspirations and options, especially for those whose options and aspirations may be limited by their place in the current social and economic fabric.

Over time, children and adolescents ideally receive increasing experiences with different performance tasks as well as vicarious and direct exposure to a widening array of career possibilities. These experiences lead to differentiated beliefs about personal capabilities in varied activity domains and an expanded sense of reinforcers provided by different career options. These emergent self-efficacy beliefs and outcome expectations nurture career-related interests, goals, and aspirations that tend to become increasingly crystallised (although still malleable) over time. Thus,

according to SCCT, self-efficacy beliefs and outcome expectations are key to cultivating students' interests in a range of educational and occupational possibilities.

At the same time, many students' career aspirations become constricted either because they acquire inaccurate information concerning their areas of competence or the types of outcomes that they can expect from different occupations. These deficits can result when environments provide limited or biased exposure to particular efficacy building experiences (e.g., few opportunities to succeed in science-based pursuits, absence of gender-similar role models in math) or limited exposure to potentially value- and interest-correspondent occupational possibilities. Interventions designed to promote ability-congruent self-efficacy beliefs, accurate outcome expectations, and exposure to a wide-range of occupational possibilities may, therefore, be particularly useful during childhood and adolescence, especially for those who live under less than ideal conditions.

Following from Bandura's (1986, 1997) general social cognitive theory, SCCT hypothesises that there are four major sources of efficacy and outcome expectation information: personal performance accomplishments; vicarious learning (modelling); social persuasion, encouragement, and support; and physiological and affective states and reactions (e.g., anxiety). Each of these sources can be the focus of efficacy-enhancing experiences that may help expand students' career aspirations. For example, modelling might be used to expose children and adolescents to career and academic domains with which they might not be familiar. Students are most likely to respond to models perceived as similar to themselves in terms of gender, race/ethnicity, and social-economic background. Social persuasion and support can be used to encourage children and adolescents to try new tasks, persist despite setbacks, and interpret their performance favorably (e.g., on the basis of skills growth rather than ultimate task success or other more external sources of attribution). Relaxation and cognitive restructuring strategies can be used when anxiety seems to be hindering performance and efficacy belief development. Finally, personal performance accomplishments are critical to enhancing self-efficacy. Thus, it is important to expose children and adolescents with opportunities for task accomplishment in various domains as well as to supportive others who can help them to process their successes and setbacks in beneficial ways.

Interest and Choice Interventions in Adolescence and Adulthood SCCT's interest and choice models were developed to aid in the development of interventions to promote more satisfying career choices, regardless of past and current circumstances. As such, SCCT has much in common with person-environment fit approaches to counselling (Dawis and Lofquist 1984; Holland 1997) in that it aims to help persons identify and then select from an array of occupations (and educational options) that correspond as much as possible to important aspects of their work personalities (i.e., interests, values, and abilities).

However, SCCT also acknowledges that many people are blocked in these efforts for a number of reasons, including seemingly insurmountable barriers (e.g., poverty and financial conditions, discrimination, job availability); less than optimum support from parents, teachers, communities; under-estimated self-efficacy beliefs; and

inaccurate outcome expectations. Counsellors working from an SCCT perspective, therefore, would not only help people identify occupational possibilities that match with their work personalities, but would also explore with clients the types of barriers that may limit their abilities to implement desired choices and brain-storm (and practice) strategies to overcome identified barriers. It is equally important (Brown and Ryan Krane 2000) to explore with clients how supports might be developed that would facilitate the choice-making and choice-implementation process.

Further, because both self-efficacy beliefs and outcome expectations represent cognitive representations that may or may not match actual capabilities and likely outcomes, SCCT also acknowledges that some clients may have earlier ruled out well-fitting occupational options because of less than robust efficacy beliefs or inaccurate outcome expectations. Thus, counsellors following an SCCT perspective might encourage clients to reconsider previously ruled-out possibilities and explore reasons why they had been eliminated from consideration, focusing specifically on self-efficacy beliefs, outcome expectations, external barriers, and availability of support (see Brown and Lent 1996 for a fuller discussion of this critical aspect of SCCT counselling).

In the end, the goals of choice counselling, according to SCCT, are to (a) help people develop feelings of agency over their career development, regardless of prevailing circumstances; and (b) assist them to identify and enter occupations, given current realities, that match as well as possible their interests, values, and abilities. Indeed, recent evidence (Dik and Hansen 2011) suggests that helping people find well-fitting occupations may be more important to the satisfaction and well-being of those who have less rather than more control over their career development and occupational choices.

Applications of the Performance Model

The central hypothesis of the SCCT performance model is that self-efficacy beliefs can facilitate academic and work performance as long as the individual possesses at least minimally adequate levels of skills required in a particular performance domain. Thus, a person can display less than adequate performance at work because his or her skills and abilities do not correspond well to skill and ability required in the job or because his or her self-efficacy beliefs are either unrealistically low or high.

Those with adequate ability but less than desired levels of confidence in their abilities (low self-efficacy) will likely set less than challenging goals for their performance, avoid challenging work or school tasks, and give up prematurely when confronted with difficulties. Intervention efforts for those who underestimate their abilities would be directed at helping people build these self-beliefs via modelling; providing social persuasion, encouragement, and support; setting manageable but challenging performance goals; and (when relevant) managing debilitating anxiety. On the other hand, those who drastically overestimate their abilities may set excessively challenging goals and engage in work and educational tasks for which

they are ill-prepared. Intervention efforts for them might focus on skill-building activities or efforts to assist them to find work that is more correspondent with their abilities. The latter strategies (finding alternate work) may be called for when skills deficits are substantial or when individuals refuse skill-building efforts.

Applications of the Satisfaction Model

Although research on the SCCT satisfaction model has implicated variables that may not be easily alterable (e.g., personality traits like positive and negative affectivity) as important predictors of work and educational satisfaction, there is also support from model tests for more malleable sources of dissatisfaction that may be more important targets for interventions. For example, clients could be helped (depending on their major sources of dissatisfaction) to (a) access desired working conditions and activities via job redesign or skill updating; (b) set and make progress toward valued goals; (c) enhance goal-related self-efficacy beliefs; and (d) engage in self-advocacy (e.g., to deal with uncivil or harassing working conditions).

Research on SCCT and from organisational psychology has shown that perceived organisational support is a major source of satisfaction for many workers. Major components of perceived organisational support include supervisor support, fair company policies and procedures, and equitable distribution of rewards. These might then become intervention targets for companies desiring to promote greater satisfaction among their employees. However, because there are certain personality predispositions (e.g., negative affectivity) and workplace conditions (e.g., unchangeable company policies) that may limit gains in satisfaction for some employees, SCCT also advocates other methods to promote work satisfaction among individual employees, where necessary. These may include job changes or compensatory strategies focused on pursuing goal-directed strategies in other life domains (e.g., leisure, family, community) that offer alternative routes to satisfaction and well-being.

Applications of the Self-Management Model

A fundamental tenet of the SCCT self-management model is that the engagement of any type of career self-management behaviour (e.g., career exploration, job finding, multiple role management, retirement planning) is optimised when people possess requisite knowledge and skills, along with relatively strong self-efficacy beliefs, positive outcome expectations, manageable goals, adequate supports, and minimal barriers. Thus, interventions to promote self-management behaviours would begin by considering which of these important conditions may need to be addressed to initiate and maintain particular self-management behaviours.

The SCCT self-management model was also developed to promote developmental and preventive interventions that might help students and workers anticipate and prepare for predictable career tasks. The self-management model suggests that such interventions should include the following elements: (a) developing task-relevant skills and corresponding self-efficacy beliefs, (b) promoting positive outcome expectations (e.g., beliefs that engaging in self-management behaviour is worth the effort), (c) setting manageable goals, and (d) overcoming obstacles to, and building supports for, adaptive career actions. The model might also be used in psychoeducational interventions to alert and prepare people for coping with less predictable educational and career events (e.g., job loss, career plateauing, work-family conflict)—see Lent (2013) for a discussion of SCCT's preparedness perspective.

Summary and Conclusion

SCCT currently consists of five theoretical models aimed at explaining how people (a) develop academic and occupational interests, (b) make and remake educational and occupational choices, (c) achieve various levels of persistence and performance in school and at work, (d) obtain school and work satisfaction, and (e) manage their career development by engaging actively in developmental tasks and coping with less predictable school- and work-related events. The five models have shown empirical promise in diverse populations, though some of the models have received more attention than others (see, for example, Lent and Brown 2017). They may also be used to develop and refine career interventions to (a) help all children and adolescents aspire as high as their talents can take them and (b) enable people to make optimum educational and work choices and achieve success and satisfaction at school and work. The SCCT self-management model, although requiring further empirical inquiry, offers an integrative framework for helping individuals gain a greater sense of agency over their own educational and career development.

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Chapter 8

The Psychology of Working: Framework and Theory



Kelsey L. Autin and Ryan D. Duffy

Abstract The Psychology of Working is a framework and theory developed to capture work experiences of diverse individuals. Specifically, it aims to predict one's access to decent work based on experiences of marginalisation and discrimination. In turn, it theorises decent work as a central variable in one's general well-being and well-being in the work place. Practice and policy implications are discussed.

Keywords Psychology of Working · Marginalisation · Discrimination

Over the last century, the field of vocational counselling has produced a wealth of research on career decision-making, vocational identity, and satisfaction with work. The bulk of this scholarly work has emphasised within-person factors that facilitate career decision-making that results in optimal satisfaction of the individual (e.g., Hartung 2013; Holland 1997; Lent 2013; Lent et al. 1994; Savickas 2002; Swanson and Schneider 2013). This body of research has proved to be empirically robust, practically useful, and has shaped the field of career counselling as we know it (Fouad 2001). Over the last decade, however, vocational scholars have called attention to the lack of focus on contextual and structural factors in vocational development (e.g., Blustein 2001, 2006, 2008; Duffy et al. 2016a; Fouad 2001; Lent et al. 2000). Further, scholars have noted that samples in much of the previous empirical work have consisted of college-educated, White, and middle class and above individuals, and thus has not been representative of the majority of the global population (Blustein 2006; Blustein et al. 1997; Fouad 2001). To address these gaps in the literature, Blustein and colleagues (Blustein 2001, 2006; Blustein et al. 2008) developed the Psychology of Working Framework (PWF), which places sociocultural factors as the primary drivers in vocational development. More recently, Blustein's framework was developed further into a testable theoretical model, the Psychology of Working Theory (Duffy et al. 2016a; PWT).

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The primary aim of the PWF and PWT is to capture work experiences of diverse individuals, especially those who are socially or economically disadvantaged and, thus, lack access to resources necessary to make volitional career transitions. The Psychology of Working draws from philosophical (e.g., Gini and Sullivan 1989; Hardy 1990; Heidegger 1962), psychological, anthropological (e.g., Goldschmidt 1990) sociological (e.g., Thomas 1989; Wilson 1996), and economic (Neumark 2000) perspectives on work. It conceptualises work as core to the human experience and essential to wellness and flourishing. It also expands traditional scholarly conceptions of work to include unpaid caregiving, homemaking, and volunteer work. Finally, the psychology of working is rooted in social justice advocacy, asserting access to decent work as a basic human right and aiming to increase access to decent work for workers around the globe (Blustein 2006; Duffy et al. 2016a). In this chapter, we will explain why a psychology of working is necessary, describe the theoretical underpinnings and empirical findings of the PWT, and discuss implications and future directions for PWT research, policy, and practice.

Necessity of a Psychology of Working Framework

The PWF was developed as a reaction to two major gaps in the career development literature. First, extant literature tended to be geared toward workers with a relatively high level of freedom of work choice (Blustein 2006; Blustein et al. 1997; Fouad 2001). Although the inception of career counselling was rooted in the progressive interests of providing vocational guidance to the poor (Hartung and Blustein 2002; O'Brien 2001), the relevance of the field to workers outside of the traditional white collar trajectory has diminished over time. Blustein (2006) described the complex contributions of vocational theorists throughout the twentieth century, noting that while the trait-factor and developmental theories propelled the field forward, there was an inadvertent shift that left marginalised populations behind. Specifically, although Super's (1980) introduction of the "career" narrative progressed the field to a necessary developmental focus, it also took on an implicit assumption about career trajectories that was more consistent with occupations of white collar workers. Further, the trait-factor theories that dominated the field carried an additional assumption that individuals have the volition to pursue jobs that align well with their personality and skill-sets (Blustein 2006).

Second, the major career theories and/or theoretical ideas were developed from the 1940s to the 1980s, a time that echoed of transitions from the agrarian age to the industrial age. At the start of the industrial age, occupations shifted from being primarily agricultural and family-centered to urbanised and corporation-focused (Blustein 2006). Sennet (1998) described how the urbanisation of the industrial age often resulted in individuals being dislocated from their original homes and families, with a resulting loss of personal identity. Although working remained survival-focused for the majority of the population, who had limited access to education and vocational training, the highly regimented nature of the quintessential factory jobs

became a symbol of stability and security. By the mid-twentieth century, as industrial corporations evolved to provide a pathway for upward mobility, the notion of the “career” had emerged, providing a life-long occupational narrative for workers (Blustein 2006). Workers with access to educational and vocational opportunities enjoyed the prospect of advancing within their corporation. Furthermore, this conception of career provided an opportunity to fill the gaps that had been left by workers’ displacement from their homes and families. The career provided workers with something with which to connect, and ultimately re-establish the lost sense of self that resulted from the rise of the industrial age (Blustein 2006; Lippmann 1914). Although many reflect on the mid-twentieth century as an idyllic picture of stability, Blustein (2006) points out the reality that, even during this time of relative stability, there remained vast inequities and enduring poverty; the fact that many people idealise this time speaks further to the disconnection from the disenfranchised.

The 1970s and 1980s saw the decline of the industrial age and the rise of the information age in which the increasing role of technology incontrovertibly impacted the world of work (Blustein 2006). Specifically, the rise of technology has allowed employers to transfer work that was previously performed by low-skilled workers to machines, which are far less costly (Blustein 2006; Rifkin 1995). With this transition, the need for highly educated and specifically trained workers has increased and the need for low-skilled workers has decreased. Thus, there is a widening gap between the highly-educated few and the working-class many. Furthermore, workers who are most severely impacted by these changes are the poor and working class (Rifkin 1995).

Closely tied to the rapid changes of technology in the information age is the globalisation of the capitalist market. With greater access to remote communication, employers in industrialised nations are increasingly turning to outsourcing work to developing nations at a lower financial cost. This phenomenon has displaced the jobs of many low-wage workers (Blustein 2006; Friedman 1999). Manufacturing jobs, for example, once employed a vast number of blue collar workers (Norton and Rees 2007). With the advent of globalisation, many these workers have been forced to shift to alternative industries as they have seen their traditional occupations disappear. Additionally, globalisation has greatly increased competition for high-skilled workers, and, in turn, increased the education and training needed to obtain a high-wage job. Thus, decent work has become more difficult to attain even for those who have access to resources like higher education (Blustein 2006; Autor et al. 2016; Wood 1998.)

The PWF was developed to address the limitations in past vocational theories in explaining both work experiences of people with limited occupational choice and how workers may be impacted by the rapidly changing economic landscape. The primary aim of the PWF is to expand the scope of vocational research to better reflect the reality of the occupational world faced by the majority of workers today. Embedded in the PWF are several assumptions about working and the role that it plays within individuals and at the broader societal level. Below are the assumptions outlined by Duffy et al. (2016a, p. 128):

- “Work is an essential aspect of life and an essential component of mental health.
- No one epistemology should be privileged over another in the explication of the psychological nature of working.
- The psychological study of working should be inclusive, embracing everyone who works and who wants to work around the globe.
- In many cases and situations, work and nonwork experiences are closely intertwined.
- Work includes efforts within the marketplace as well as caregiving work, which is often not sanctioned socially and economically.
- Working has the potential to fulfil three fundamental human needs—the need for survival and power; the need for social connection; and the need for self-determination.
- To more fully understand the psychological nature of working, careful considerations are needed of relevant social, economic, political, and historical forces, which shape, constrain, and facilitate many aspects of contemporary working.”

Psychology of Working: The Theoretical Model

The PWT was developed to empirically test the assertions of the PWF. The most basic aim of the PWT is to understand predictors and outcomes of access to decent work. Reflecting the PWF’s primary placement of contextual and structural factors in individual work experiences (Blustein 2006), the PWT places economic constraints and marginalisation based on social identities (e.g., race, gender, ability status, sexual identity) as primary predictors of access to decent work and, in turn, general well-being in work and life. The PWT also proposes essential mediators that facilitate the associations from sociocultural factors to decent work and from decent work to well-being. In the following sections, we will describe each variable and its role within the PWT model. See Fig. 8.1 for schematic of the theoretical model.

Decent Work Decent work is placed as the central variable in the PWT model. PWT scholars modelled criteria for decent work from the International Labor Organization’s (ILO) standards for decent work (ILO 2012). These standards include (a) physically and interpersonally safe working conditions (e.g., absent of physical, mental, or emotional abuse), (b) hours that allow for free time and adequate rest, (c) organisational values that complement family and social values, (d) adequate compensation, and (e) access to adequate health care (Duffy et al. 2016a, p. 130).

The PWT suggests that decent work is essential in the satisfaction of basic human needs that support work fulfillment and well-being. Given the factors related to changes in the economic and labor landscapes over the last several decades, decent work is becoming more difficult to secure, even for highly educated workers (Duffy et al. 2016a). Thus, it is essential at both the individual and the policy level to understand factors that promote access to decent work, especially among populations

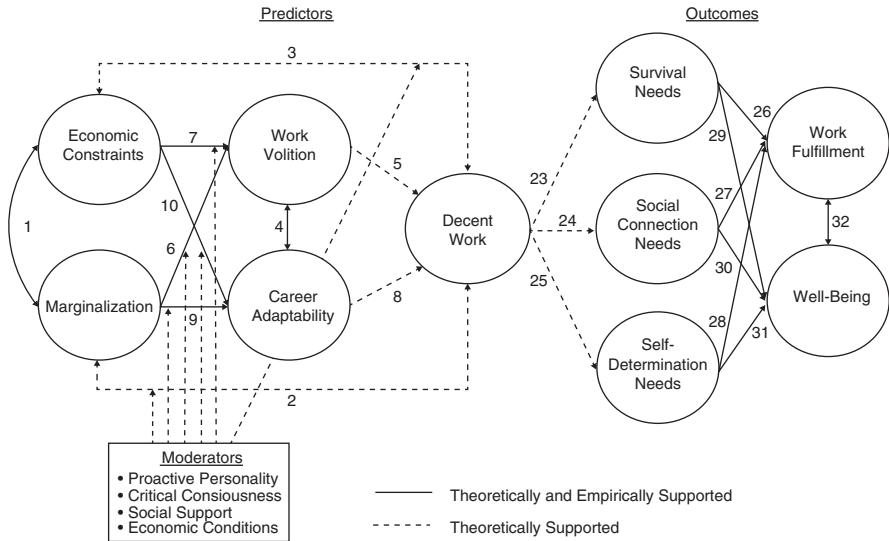


Fig. 8.1 Theoretical model. (Reprinted with permission from Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The Psychology of Working Theory. *Journal of Counseling Psychology, 63*(2), 127–148)

who have limited access to resources such as social capital and education. The PWT proposes economic constraints and marginalisation as the main predictors of a person’s access to decent work. Additionally, the theory suggests two mediators—work volition and career adaptability—that facilitate the associations between primary predictors and decent work (Duffy et al. 2016a).

Predictors of Decent Work

Economic Constraints Economic constraints represent one of the two primary factors in promoting decent work. Intimately linked with social class, economic constraints represent an individual’s or family’s limited access to economic resources (Duffy et al. 2016a). Economic resources create pathways to several facilitators of positive vocational development, and economic constraints create barriers to these pathways. For example, higher social class families are more likely to provide cognitively stimulating experiences and materials (e.g., travel opportunities, books) to their children than families from lower social class backgrounds (Crosnoe and Cooper 2010). At the community level, families from lower social class backgrounds often live in neighborhoods with limited access to public resources necessary for educational and vocational development. For example, public schools in areas with higher levels of poverty tend to have lower quality conditions, fewer resources, and less qualified teachers and principals (Clotfelter et al. 2006; Ingersoll

2004). Ingersoll (2004) detailed the impact of these factors on retaining high-quality teachers in high-poverty schools, which has, in turn, been found to significantly impact equal access to education and occupational outcomes of children living in poverty (Hochschild 2003). Further, economic constraints may increase risk factors associated with living in poverty including higher crime rates, housing instability, and fewer positive social support networks (Leventhal and Brooks-Gunn 2000). Economic constraints that limit positive career development in childhood and adolescence are likely to continue into adulthood. Notably, economic constraints limit one's access to opportunities for higher education, an essential ingredient in vocational choice. In sum, economic constraints lead to general social exclusion from resources such as education. This systematically disadvantages those from poor and working-class backgrounds, who are often left with little volition in their work-related decisions.

Marginalisation The second primary predictor in the PWT model is marginalisation. Duffy et al. (2016a) defined marginalisation as “the relegation of people (or groups of people) to a less powerful or included position within a society (p. 132).” Marginalisation occurs at both the interpersonal (e.g., overt discrimination toward an individual) and societal level (e.g., systematic discrimination within an institution), and can be based on identities like race, ethnicity, gender identity, sexual identity, disability status, and social class. Crucial to the understanding of marginalisation experiences is the intersection of different identities. For example, a heterosexual woman of color from a high social class background likely experiences marginalisation differently than a heterosexual white man from a working-class background. In other words, marginalised identities do not exist in a vacuum, and it is essential to consider idiosyncratic experiences of multiple identities across contexts. Furthermore, it is important to note that social class is inherently linked with economic constraints and deeply tied to racial, ethnic, and gender identity.

Marginalisation works to keep minoritised groups from both equal access to decent work and to opportunities for positive vocational development within the workplace. For example, academic achievement gaps in racial and social class groups have been well-documented, with those identifying as White and middle class consistently more likely to graduate from 4-year universities (Stephens et al. 2012). Additionally, biases based on social identities systematically exclude minority groups from obtaining opportunities for work. In a field study by Bertrand and Mullainathan (2004), researchers found that résumés with “white sounding names” were 50% more likely to receive call-backs than résumés with “black sounding names.” Furthermore, pay gaps persist in the workplace, with men earning more than women and Whites earning more than ethnic minorities for equal work (Pew Research Center 2016). These examples of inequality highlight the intersection of race, gender, and social class as gaps in pay and achievement reflect racial and gender disparities rooted deep in U.S. history.

Although marginalisation based on social identities is intimately linked with economic constraints, financial barriers do not fully explain the exclusion of mar-

ginalised groups from opportunity structures. For example, studies of first generation college students describe alienation from middle class culture, lack of mentorship in navigating “the system,” and lack of belongingness as common barriers to vocational development during college (Stephens et al. 2014). Thus, the PWT emphasises the psychological experience of marginalisation above and beyond economic factors.

Mediator Variables

Work Volition The PWT proposes that heightened economic constraints and experiences of marginalisation limit access to decent work partly because they limit a person’s perceived freedom of work choice despite barriers, or *work volition* (Duffy et al. 2012, 2016a). Within the PWT, work volition is conceptualised as a perception that is based on contextual factors. Thus, though work volition is largely shaped by a person’s experience of their social and economic environment, two people in similar circumstances may report differing levels of work volition. The conceptualisation of work volition as an attitudinal variable has been supported by research showing that it overlaps with, but is distinct from, contextual barriers (Duffy et al. 2012, 2016b, c).

Career Adaptability The second mediating variable proposed in the link from contextual factors to decent work is career adaptability. Career adaptability reflects one’s capacity to use resources to cope with current and anticipated vocational tasks (Savickas and Porfeli 2012). Career adaptability is made up of the following components: concern, control, curiosity, and confidence (Savickas 1997). Concern refers to preparation for future vocational tasks; control reflects the level of responsibility one takes for creating their vocational future; curiosity speaks to one’s exploration of potential work opportunities; and confidence refers to the extent to which a person feels able to overcome potential barriers related to vocational aspirations. It is proposed that low levels economic constraints and marginalisation lead to greater access to decent work, in part through the mechanism of increased career adaptability.

Moderator Variables

Duffy et al. (2016a) also propose four variables—proactive personality, social support, critical consciousness, and economic climate—that moderate the links between contextual factors, mediators, and decent work. Each of these variables are proposed as factors that have the potential to change over time and, in turn, influence links between variables predicting decent work. Proactive personality, social support, and critical consciousness, in particular, are suggested by the authors as malleable, and as such, potentially fruitful targets of intervention. Past research has

provided support for the moderating role of these variables in positive vocational outcomes. Proactive personality, for example, has been shown to positively relate increased job search behaviors, job search self-efficacy, and job search success (Brown et al. 2006). Likewise, past research has demonstrated that social support is predictive of positive vocational outcomes among samples who are likely to experience marginalization and economic constraints (e.g., first generation college students, racial/ethnic minorities, sexual minorities; Garriott et al. 2013; Lent et al. 2011). Critical consciousness has been found to positively predict career commitment, school engagement, and vocational expectations and attenuate the negative association between racial discrimination and academic achievement, self-efficacy, and mental health (Sellers et al. 1998; Wong et al. 2003; Zimmerman et al. 1999). Taken together, evidence consistently supports the idea that these three variables may act as buffers against the negative impacts of marginalization and economic constraints on both vocational and general mental health outcomes. Economic climate, though not a person-level factor, changes over time and is proposed to help explain how the broader economic context and labor market fluctuations impact the predictive power of individual economic constraints and marginalisation.

Outcomes of Decent Work

Basic Need Fulfillment The PWT places economic constraints, marginalisation, work volition, and career adaptability as predictors of decent work, which in turn predicts a person's capacity to fulfil three basic human needs—survival and power needs, social connection needs, and self-determination needs.

Survival and power needs refer to resources necessary for physical survival. Survival needs include access to food, water, shelter, and clothing. Also included in this category of needs are power needs, which indirectly influence a person's ability to fulfil physiological needs. Power needs include resources like social capital and access to opportunity structures, such as education (Blustein 2006; Duffy et al. 2016a). Given that decent work is defined by adequate income, access to healthcare, and safe working conditions, the PWT proposes that decent work is an essential precedent of fulfilling survival and power needs.

Social connection needs describe a person's need to feel a sense of belonging within one's community (Duffy et al. 2016a). Blustein et al. (2008) describe work as an essential pathway to connection with one's community. Connection to the greater society allows individuals to feel that they are contributing something important to the social and economic fabric of their world. It also allows them to feel a sense of belonging within a community, which has long been accepted as a basic psychological need (Baumeister and Leary 1995).

Finally, the PWT proposes that access to decent work allows individuals to fulfil the basic human need for self-determination. Self-determination refers to a person's capacity to engage with their world in a way that is self-directed (Duffy et al. 2016a).

One may feel self-determined in both intrinsically and extrinsically motivated behaviors so long as they experience these behaviors as self-regulated. Self-Determination Theory (SDT; Ryan and Deci 2002) asserts that even extrinsically motivated tasks can be internalised as congruent with a person's intrinsic desires. For example, a medical student may be extrinsically motivated to complete her organic chemistry assignments, yet feel self-determined in that behavior, as it aligns with her ultimate goal to secure a career where she might help others and feel intellectually stimulated. According to SDT, a sense of self-determination is most likely to be experienced when an individual feels autonomy, competence, and relatedness within their environment (Ryan and Deci 2002).

SDT is especially relevant to the psychology of working because it sheds light on how workers might develop a sense of self-determination while performing tasks that are not inherently enjoyable or interesting. This is relevant to all workers, as all work includes at least some tasks that are not intrinsically motivating. However, it may be particularly useful to people with limited volition to pursue work that aligns with their interests and skills. Blustein et al. (2008) noted that, in addition to lacking congruence with personal interests, many occupations around the globe are repetitive, boring, and sometimes even dangerous or degrading. Although psychology of working scholars underscore the need for systematic and policy-level changes to create safe and dignified work environments, they also acknowledge that these changes may take decades (Blustein 2008). Thus, SDT provides a framework for how workers might integrate extrinsically motivated behaviors at work to be consistent with their intrinsic desires.

Outcomes of Need Satisfaction

Work Fulfillment and General Well-Being The PWT suggests that satisfying needs through decent work ultimately leads to two overlapping outcomes of work fulfillment and general well-being. Work fulfillment encompasses a broad range of positive outcomes including job satisfaction (Judge et al. 2000), work meaning (Rosso et al. 2010), and work engagement (Bakker et al. 2008). General well-being encompasses overall satisfaction with life as well as overall physical and psychological health. The literature on work-specific well-being and general well-being suggests that the two are highly related; those who are generally satisfied with life are more likely to be satisfied with their work (e.g., Duffy et al. 2013, 2014; Judge and Watanabe 1993), and these relations appear to be reciprocal (Hagmaier et al. 2018).

Previous research has linked survival, social connection, and self-determination needs to work fulfillment and general well-being. For example, studies show that although social class, which is strongly tied to satisfaction of basic needs, does not tend to influence one's perception of what makes work meaningful, it does impact the extent to which workers report experiences of meaningful work (Allan et al. 2016). Additionally, previous research suggests that annual incomes that fail to

satisfy basic survival needs result in diminished subjective well-being (Diener 2000; Kahneman and Deaton 2010). Evidence regarding the relation of social connection work fulfillment can be found in the literature on task significance, or the perception that one's job tasks have positive impacts on others (Grant 2008). Previous research consistently links task significance to experiences of meaningfulness at work (Hackman and Oldham 1976). In turn, experiencing one's work as significant and meaningful has been found to positively predict overall life satisfaction (Steger et al. 2012). Finally, there is strong evidence that fulfillment of self-determination needs is highly predictive of work fulfillment and overall well-being. Specifically, previous studies have shown positive associations of self-determination need fulfillment with job satisfaction (Vansteenkiste et al. 2007), engagement (Gagné and Deci 2005), life satisfaction (Ryan and Deci 2000), and positive health outcomes (Ryan et al. 2008).

Empirical Support for the PWT

Since the PWT was published, researchers have begun to build empirical support for PWT notions in diverse populations using both quantitative and qualitative methods. In a thematic analysis of interviews with unemployed and underemployed adults, Kossen and McIlveen (2017) found that themes of economic constraints, marginalisation, restricted work volition and career adaptability, and moderating variables (social support, proactive personality, critical consciousness, economic constraints), were all present and discussed. Another qualitative analysis by Autin et al. (2018) found support for the foundational role of economic constraints and marginalisation in the development of work volition and access to decent work in a sample of undocumented immigrant young adults.

Additionally, portions of the model including predictors and mediators of decent work have been quantitatively tested using diverse samples of employed adults. For example, Douglass et al. (2017) found that, in a sample of LGB-identified adults, heterosexist discrimination and social class directly and indirectly, through work volition, predicted participants' likelihood of obtaining decent work. In a study examining predictors of decent work in workers with Chiari malformation, a chronic genetic health condition, Tokar and Kaut (2018) demonstrated support for links from contextual factors to work volition, career adaptability, and decent work. Autin et al. (2017) found longitudinal support for work volition as a mediator in the relation from subjective social status, a component of social class, to career adaptability in a sample of undergraduate students.

Regarding outcomes, Duffy et al. (2017a) demonstrated that, in a sample of working adults, decent work predicted job satisfaction, work meaning, and withdrawal intentions. Duffy et al. (2017b) found that the relation from having a calling to increased life meaning and actualising one's calling was moderated by economic resources, and that this in turn predicted increased life satisfaction. Hirschi et al. (2018) found that perceiving and living out a calling were positively correlated with task significance as well as autonomy and workplace social support, two primary

factors in meeting self-determination needs. Additionally, they found that these variables significantly mediated the link from education and salary to perceiving and actualising a calling. In a study of working adults in mid-life, authors found that workers who endorsed the highest levels of psychological health were those who endorsed fulfillment of survival, social connection, and self-determination needs (Kim et al. 2017). Finally, Bouchard and Nauta (2017) identified work volition as a mediator in the relation between physical health and positive career outcomes like satisfaction with major and educational persistence.

In sum, recent empirical exploration of the PWT propositions has provided preliminary support for hypothesised links in the model. Taken together with previous empirical and conceptual work within the PWF, these results can provide a wealth of practical implications and directions for future research.

Psychology of Working in Practice

The current body of literature on the psychology of working paves the way for implications on career counselling practice as well as public policy. Regarding clinical practice, the psychology of working offers a theoretical framework for a holistic perspective of working. From a psychology of working perspective, counsellors are encouraged to conceptualise work as an essential aspect of physical and psychological well-being. First and foremost, what the psychology of working might bring to practitioners is an awareness of contextual factors when working with clients. We encourage career development specialists to carefully assess for contextual factors that may limit clients' sense of volition and adaptability. Specifically, we recommend heightened awareness of economic constraints and social identities that may result in marginalisation in the work world. Although more research regarding interventions is needed, the psychology of working literature provides empirically-based directions for addressing vocational barriers. For example, the PWT suggests social support, critical consciousness, and proactive personality as variables that may buffer negative effects of economic constraints and marginalisation, and preliminary evidence supports this claim (Autin et al. 2018; Duffy et al. 2016a; Diemer and Blustein 2006). Thus, clients facing restricted volition and adaptability may benefit from counselling interventions that draw upon these resources.

A defining aspect of the psychology of working is the applicability to diverse populations. Further, authors intended the framework and theory to be adapted to fit the needs of specific populations (Duffy et al. 2016a). Thus, practitioners should seek training and experience to familiarise themselves with common needs of specific groups. For example, Blustein (2006) provided summaries of particular considerations for working with clients with disabling condition, at-risk youth, LGBT identified clients, the unemployed, and clients of color (pp. 260–273). Practitioners are encouraged to integrate broad PWT assumptions about power and privilege, academic literature on specific identities, practical training related to diversity issues, and personal experience to inform practice that reflects the needs of diverse clients.

Psychology of Working in Policy

The psychology of working provides an argument for expanded professional roles of those working in career development, specifically related to advocacy. The roots of career counselling as an advocacy effort run deep. Frank Parsons, widely known as the father of career counselling, established vocational guidance interventions that helped disadvantaged boys find work and explicitly challenged disparities between the rich and the poor (O'Brien 2001; Hartung and Blustein 2002). Hartung and Blustein (2002) addressed career development researchers, theorists, and practitioners in how they might connect back to the spirit of Parsons' social justice movement and expand social justice efforts in the field. Specifically, they recommend that career counselling professionals allow narratives of workers from disenfranchised groups to guide research, theory, and intervention. They also recommend that, in addition to the individual-level work of traditional career interventions, career counselling professionals work toward system-level interventions (Hartung and Blustein 2002). For example, the psychology of working might inform the development and delivery of school-based interventions to promote equity in access to decent work starting from childhood and adolescence. Additionally, drawing from narratives of poor and working-class individuals might inform where and how to implement community-based interventions to increase access to decent work in populations with restricted volition.

In addition to promoting volition in diverse groups at the institutional and community levels, it is essential for career development professionals to participate in promoting legislative and political policies that increase equity in access to decent work. In an article on the role of policy in access to opportunity in work and education, Fassinger (2008) outlined the benefits of policies such as Title IX, affirmative action, the Employment Nondiscrimination Act, and the American Disabilities Act to women, people of colour, sexual minorities, and people with disabilities. In a study of undocumented immigrant young adults, Autin et al. (2018) found that the Deferred Action for Childhood Arrivals policy enacted in 2012 was a key factor in participants' sense of work volition. As research has demonstrated the importance of these policies in creating and maintaining equity in the workplace, it is essential that career counselling professionals engage in discourse at the political level.

Future Directions for the Psychology of Working

In light of the conceptual and empirical work presented in this chapter, there are a number of future directions for psychology of working theory and practice. First, given the recency of the PWT, it is necessary for researchers to continue testing hypothesised links in the model and revise the theory according to empirical evidence. Further, it is important for the PWT to be adapted to specific populations. For example, Tokar and Kaut (2018) found that work volition did not significantly

predict decent work in a sample of mostly women with Chiari malformation, hypothesising that contextual factors outweighed participants' sense of work volition in obtaining decent work. Thus, it is important to use these findings to adapt the PWT to this specific population in research and in practice. Additionally, it will be important to identify mediators and moderators that may be unique to specific populations. The PWT authors note that, in the interest of parsimony, important factors like mental health status and political climate are not included in the PWT model (Duffy et al. 2016a). It will be important for future researchers to identify which unique factors are especially important in specific populations to create models that reflect the reality of individual worker narratives.

In a similar vein, PWT authors note that the model was based on literature that was primarily representative of United States samples. Thus, it is critical that researchers expand the scope of the psychology of working to include populations outside the U.S. This may be particularly important in understanding the relative importance of the basic human needs posited by the PWT. Although research supports these needs across cultures (Chen et al. 2015; Church et al. 2013; Deci and Ryan 2008), it is important to remember that self-determination was developed with a Western conceptualisation as the self, which is primarily individualistic. In future studies that examine non-Western populations, it will be important to tease out cultural biases that may be present in the psychology of working literature.

Second, it will be important for future psychology of working researchers to examine access to decent work over time. For example, there is very little known regarding the development of work volition and factors that might support positive changes in work volition across the lifespan. In future studies, researchers should examine factors in childhood and adolescence that predict access to decent work in adulthood. Similarly, it will be important to understand how access to decent work might promote physical and emotional well-being as adults age, including after retirement.

Finally, as the psychology of working continues to develop, it is essential that career counselling professionals engage in cross-disciplinary collaboration. Fields that have been traditionally represented in career counselling- counselling, vocational psychology, industrial-organisational psychology- and have focused on the individual must integrate knowledge from fields like philosophy, economics, sociology and political science. Individual workers are embedded within the social and economic fabric which is becoming increasingly globally connected. Thus, collaboration with fields that emphasise macro-level factors will be essential in creating a psychology of working that promotes the wellbeing of individuals and their broader communities.

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Chapter 9

Career Callings and Career Development



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Abstract The construct of “calling” has become a topic of growing interest in the career development literature, and also among educators, career counseling professionals and organisations seeking to help others foster a deeper sense of purpose and meaning in work and life. While there are some measurement and conceptualisation differences in the literature, researchers generally agree that perceiving a calling involves feeling drawn to a meaningful career for transcendent and prosocial reasons (Dik and Duffy, *Couns Psychol* 37(3):424–450, 2009). There is also a key distinction between perceiving a calling, and finding or creating opportunities to live out one’s calling, although both are associated with a plethora of positive career-related and well-being outcomes. The purpose of this chapter is to review the diverse research on calling, highlight important conceptualisation differences, and articulate a theoretical framework for understanding how perceiving and living a calling relate to career and well-being outcomes. We also explore future directions for research on calling and offer recommendations for readers seeking to apply the construct in their personal lives and in their work with students, career counseling clients, or employees within organisations.

Keywords Calling · Meaningful work · Living a calling · Well-being · Career counselling

One of the fastest growing areas of research within career development over the last decade has investigated people’s experience of their work as a calling. Applied to the work role, a sense of calling usually includes some or all of the following: a sense of direction within one’s career that is personally meaningful; a motivation to make a prosocial contribution through one’s work; and the perception of an external and/or internal guiding force that helps facilitate one’s calling (Duffy et al. 2018). This research has established that both students and working adults who approach

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their career as a calling tend to experience benefits in terms of their career development and general well-being (Duffy and Dik 2013). Forty-three percent of working adults in the United States indicate that it is “mostly true” or “totally true” that they have a calling to a particular kind of work, indicating a high level of identification with the construct (White 2018). And while most of the earliest research on calling was limited to the United States, calling scholarship is now a global phenomenon, with more than 20 countries (and counting) represented in the research literature, spanning six continents.

The purpose of this chapter is to summarise the primary streams of scholarly work on calling that have accumulated, now reflecting more than 200 published studies; to identify directions for which future research is needed; and to highlight practice implications that have emerged from this work. We begin with a brief description of the diverse conceptualisations and measurement strategies used in calling research, then offer an overview of the antecedents, correlates and consequences of calling that have emerged. Research has found key differences between the experiences of those who perceive a calling compared to those who both perceive one and feel they are currently living it; we will highlight results from studies that make this distinction. (As we do so, we refer to “perceiving” and “having” a calling interchangeably; these are synonyms, both distinct from living a calling.) Next, we introduce a recently articulated calling theory, which offers a path forward for subsequent research on calling to follow. We proceed with an overview of several key directions for future research, before closing with a summary of implications for career counselling practice.

Conceptualising and Measuring Calling

Despite the rapidly growing body of research on calling, a consensus definition of the concept has remained elusive. Perhaps the simplest way of understanding calling is as a deeply meaningful orientation towards work (e.g., Bunderson and Thompson 2009). The notion of calling as a work orientation dates to the sociologists Bellah and colleagues (1985), who proposed in their famous book, *Habits of the Heart*, that people generally hold one of three orientations towards their work: job (i.e., a focus on financial rewards), career (i.e., a focus on advancement and achievement), or calling (i.e., a focus on fulfilling, socially important work). These categories were described as having very little overlap, and an influential study of non-faculty university employees found that roughly an equal number endorsed each category as most relevant to themselves (Wrzesniewski et al. 1997).

While understanding calling as a work orientation has served as a useful starting point, most research has studied calling on its own terms, without contrasting it to other orientations. Bunderson and Thompson (2009) offered one way to understand the key differences between current calling definitions by differentiating between “neoclassical” understandings of the term, which tend to retain elements of traditional understandings of the term derived from its historical, religious roots, and

“modern” definitions, which typically focus on passionate engagement and personal fulfilment.

Examples of Neoclassical definitions include Bunderson and Thompson’s (2009) definition of calling as “that place in the occupational division of labor in society that one feels destined to fill by virtue of particular gifts, talents, and/or idiosyncratic life opportunities” (p. 38). Another example is Dik and Duffy’s (2009), which requires an individual to view one’s work as (a) purposeful/meaningful in nature, (b) serving the greater good, and (c) coming from a transcendent or external summons. Zhang and colleagues established a similar understanding of calling in China, where one qualitative study (i.e., Zhang et al. 2015a) supported calling as a four-dimensional concept entailing (a) a Guiding Force, (b) Meaning and Purpose, (c) Altruism, and (d) an Active Tendency. This study led to their development of the *Chinese Calling Scale* (CCS; Zhang et al. 2015b), containing subscales that assess the first three dimensions.

Modern definitions, in contrast, emphasise calling as a secularised concept with a focus on achieving self-actualisation and fulfilment (e.g., to express creativity or mastery of personal strengths; Bunderson and Thompson 2009). Examples of modern definitions include Dobrow and Tosti-Kharas’ (2011) definition of calling as “a consuming, meaningful passion people experience toward a domain” (p. 1005) and Hall and Chandler’s (2005), which frames calling as “work that a person perceives as his [sic] purpose in life” (p. 10). Other scholars’ definitions fall somewhere between neoclassical and modern, such as including a prosocial component without reference to a “transcendent summons.” Examples of this include Elangovan et al. (2010) definition, which proposes three fundamental features: a move towards action, purpose or a personal mission, and a prosocial orientation. Another example which falls between the poles of Modern and Neoclassical definitions is the Wrzesniewski et al. (1997) framing of a calling as one’s “focus on enjoyment of fulfilling, socially useful work” (p. 21). Similarly, Praskova et al. (2015) have defined calling as “a salient career goal that is personally meaningful and oriented toward helping others” (p. 91).

This range of definitions has informed the development of measurement instruments designed to assess one’s sense of calling. For example, Dik and Duffy’s (2009) definition formed the basis of their *Calling and Vocation Questionnaire* (CVQ; Dik et al. 2012b); Dobrow and Tosti-Kharas’ (2011) definition led to their *Calling Scale* (CS); and the Wrzesniewski et al. (1997) definition was assessed by their *Calling Paragraph*. One study (Duffy et al. 2015) compared these instruments along with two others, the unidimensional Brief Calling Scale (Dik et al. 2012b) and Hagmaier and Abele’s (2012) *Multidimensional Calling Measure* (MCM), which are the five most frequently used calling measures. Their results, obtained with a sample of working adults in the U.S., demonstrated that despite some subtle but consequential differences in emphasis between measures, all five measures appeared to be reliable, relate to work-related outcomes similarly, and at least somewhat load onto one factor. The authors concluded that, despite the variation in the field on some of the definitional particulars related to calling, these five measures appear to tap into the same overarching concept. Other studies have also empirically demon-

strated that distinct understandings of calling share a common core (e.g., Hirschi 2011) and reflect a construct on which people differ as a matter of degree rather than kind (Shimizu et al. [in press](#)). Together, these findings suggest that the diverse array of definitions of calling may point towards differences in people's motivations for engaging in a calling, which in turn may result in different manifestations with different dimensions of the construct emphasised. Nevertheless, these diverse expressions of calling still reflect a unified underlying construct.

Research on Calling

Research on calling is becoming more methodologically diverse. Early studies relied primarily on correlational methods, which typically use cross-sectional research designs, positioning calling as a predictor of work and well-being outcomes. Whereas these studies provide foundational evidence pointing to the benefits of having a calling, correlational results cannot be used to infer causal connections. Also, many of these studies approach calling as a unidimensional construct by assessing and analysing total scores rather than subscale scores; this, too, establishes an important starting point for understanding the role and function of calling, but leaves out the nuance that examining particular dimensions of calling may introduce. Despite these weaknesses, these studies have revealed important information about the advantages of a sense of calling in terms of its associations with career development attitudes and general well-being, laying important groundwork on which ongoing research can build.

Career Development Attitudes

Individuals who perceive a calling to a particular line of work tend to express substantial benefits within their career development, at least in terms of attitudes related to career self-efficacy, career decision clarity, and career maturity. For example, people with a calling report a high degree of confidence in their ability to successfully navigate tasks that assist in building satisfying career paths. One study found that occupational self-efficacy, or people's belief that they are capable of handling job-related tasks, was associated with a sense of calling in a sample of 855 undergraduates from three universities in Canada (Domene 2012). A longitudinal study examining German undergraduate students found that perceiving a calling was linked to career-specific self-efficacy (Hirschi and Hermann 2013). Similarly, a study of 255 undergraduate students in the U.S. found that having a calling was positively correlated with career decision self-efficacy, or the level of confidence one has in one's ability to navigate the career decision-making process (Dik et al. 2008). As self-efficacy is a widely investigated predictor of interest development, career choice, and career success (Lent et al. 1994), establishing a link between

having a calling and self-efficacy is an important step that may inform career counselling strategies that target self-efficacy.

People's clarity around their sense of self (e.g., their interests, abilities, goals, and values) and their understanding of how those characteristics fit within various career/work roles are also related to having a calling. In fact, perceiving a calling has been associated with several measures of self-clarity and identity, including career and vocational self-clarity (Duffy and Sedlacek 2007), vocational identity achievement (Hirschi and Herrmann 2012) and occupational identity (Hirschi 2012). Career and vocational self-clarity is a vital predictor of career success, given that the way in which individuals understand themselves in the context of their careers can shape the societal and work roles in which they engage later in life (Schwartz et al. 2013). Beyond the association with self-knowledge, perceiving a calling is also related to individuals' career choice comfort, choice-work salience, occupational importance, and intrinsic work motivation (Dik et al. 2012b; Duffy and Sedlacek 2007). These results suggest that individuals who have a calling are likely to be relatively mature in terms of their career development status. That is, these individuals tend to have a good sense of their interests and abilities, they believe that making decisions about their future work is important, they understand how to make objective and rational career decisions, and they are comfortable making these decisions.

Individuals with a sense of calling also tend to be highly engaged in their work, and to identify it as a good fit. Hirschi (2012) found, with a sample of 529 working adults in Germany, heightened rates of person-job fit among individuals who express a sense of calling. Similar to its link with self-efficacy, this association between calling and fit is interesting in light of the key role that person-environment fit (P-E fit) continues to play in career development interventions (Su et al. 2015). Individuals who perceive a calling are also more likely to (a) be decisive when it comes to making important career decisions and (b) expect positive outcomes for following a specific career path. Compared to individuals who are still searching for their calling, those who perceive a calling report higher levels of career decidedness (Duffy and Sedlacek 2007). They are also more optimistic about their future work. For example, both North American and Canadian college students report higher levels of positive outcome expectations associated with having a calling (Dik et al. 2008; Domene 2012).

Not only does having a calling benefit individual career development, it likely also benefits employers, as individuals with a domain-specific calling are likely to be more dedicated to their work. Several studies have assessed this claim by investigating the relationship between calling and variables related to career commitment. For example, in a survey of zookeepers from 157 different zoos in the U.S. and Canada, perceiving a calling was related to willingness to make sacrifices for one's job and perceived organisational duty (Bunderson and Thompson 2009). Calling has also been linked with lower intentions to withdraw from one's job and behavioural outcomes such as seeking to obtain more education and missing fewer days at work (Duffy et al. 2011; Wrzesniewski et al. 1997). For undergraduates as well as working adults, research consistently supports the relationship between

perceiving a calling and organisational and career commitment (Bunderson and Thompson 2009; Dobrow and Tosti-Kharas 2011; Duffy et al. 2011).

Finally, domain satisfaction is a frequently studied criterion variable in research on calling and has been investigated across a variety of populations and domains. Peterson et al. (2009) found that having a calling moderately correlated with job satisfaction among almost 10,000 working adults across the world. A series of studies using a variety of calling measures have replicated this work, indicating calling and job satisfaction correlate at a moderate to strong level (Duffy et al. 2011, 2013; Hagmaier and Abele 2012; Harzer and Ruch 2012). This association between calling and satisfaction with one's work extends to other life domains. For example, Duffy et al. (2011) found perceiving a calling significantly correlates with academic satisfaction. In Australia, approaching one's parental role as a calling was associated with greater parental meaning and satisfaction in parents of children across different developmental time points (Coulson et al. 2012).

It should be noted that the accumulated research testing relationships between a sense of calling and career development attitudes has yielded similar results in student populations as well as adults working in diverse occupations (e.g., administrative assistants, zookeepers, academics, psychologists, mothers, and many more; Bunderson and Thompson 2009; Duffy et al. 2012; Oates et al. 2005; Wrzesniewski et al. 1997). Results have also been replicated across diverse geographic contexts (e.g., Australia, Canada, China, India, Korea, Zambia, and others; Domene 2012; Douglass et al. 2016; Praskova et al. 2015; Rothmann and Hamukang'andu 2013; Shim and Yoo 2012; Zhang et al. 2015a). This consistency of findings across diverse populations strengthens the interpretation that individuals who have a calling tend to believe in their career-decision abilities, make rational career decisions based on which job matches their personality and traits, stick to these decisions, and report satisfaction with their careers.

General Well-Being

Having a calling also is associated with individuals' overall psychological well-being. Results of various studies indicate that people who report having a calling are more likely to experience life as meaningful and satisfying than those who do not report having a calling (e.g., Douglass et al. 2016; Duffy et al. 2013, 2017; Duffy and Sedlacek 2007; Hirschi and Herrmann 2012; Peterson et al. 2009). A sense of calling is also positively associated with greater enthusiasm and zest for life (Peterson et al. 2009). Research has also begun to explore the relationships between calling and self-actualisation, strength of character, and physical health (e.g., Peterson et al. 2009; Roberts et al. 2005; Wright and Goodstein 2007). On the whole, research on calling consistently links having a calling to a variety of positive well-being outcomes.

Mechanisms Linking Perceptions of Calling with Criterion Variables

Once a body of research establishes a consistent correlation, like that between calling and positive criterion variables (such as those reviewed above) for individuals, the next step is to engage in research that investigates the mechanisms underlying these relationships. Several studies have made efforts to identify mediators that help explain relationships between perceiving a calling and career outcome variables. For example, with his sample of German employees, Hirschi (2012) found that the association between calling and work engagement was mediated by work meaningfulness and occupational identity (a third mediator, person-job fit, was tested and found not to have a conditional effect on the calling-engagement relationship). Similarly, in a study conducted with 855 first and second year undergraduate students in Canada, a sense of calling was found to predict students' expectations for a successful future indirectly through their association with occupational self-efficacy (Domene 2012). Allan and Duffy (2013) further explored relationships between calling, self-efficacy, and positive career outcomes in a cross-sectional study, finding support for a partial mediation model in which career goal self-efficacy mediates the relationship between perceiving a calling and life satisfaction. In another attempt to explain the relationships between calling and positive work outcomes, a survey of 370 university employees found career commitment to serve as a link between calling and the following work outcomes: organisational commitment, withdrawal intentions, and job satisfaction (Duffy et al. 2011). Duffy et al. (2012) examined the link between calling and life satisfaction, finding that life meaning and academic satisfaction fully mediate the relationship. These results support the findings of Steger et al. (2010) that life meaning mediates the relationship between calling and life satisfaction for undergraduate students.

Of all the mechanisms that have been examined, perhaps the most important reflects the critical distinction between the perception of having a calling and actually living one's calling within the context of one's present career. Perceiving a calling is associated with an array of positive criterion variables, but is simply perceiving a calling enough? Research has explored this question by investigating the psychological benefits of actively living out that calling. Of course, one must perceive a calling before one can live it out, indicating overlap between the two concepts. Correspondingly, Duffy and colleagues (Duffy et al. 2012; Duffy and Autin 2013) demonstrated moderate correlations between the two among working adults ($r = .46$ and $.49$, respectively), suggesting that the constructs are empirically related but distinct. With that distinction between having and living a calling established, research has consistently found that living a calling is more strongly related than perceiving a calling to criterion variables such as work meaningfulness ($r = .62$ vs. $.34$), career commitment ($r = .68$ vs. $.33$), and job satisfaction ($r = .52$ vs. $.23$; Duffy et al. 2012). With regard to general well-being, living a calling has also been shown to fully mediate the link between perceiving a calling and life satisfaction (Duffy et al. 2013). In other words, perceiving a calling was found to predict

increases in satisfaction with life insofar as it enables people to live out their calling. This finding is corroborated by another study in which perceiving a calling was associated with life satisfaction for those who were employed or voluntarily unemployed, but not for those who were involuntarily unemployed (Torrey and Duffy 2012). Indeed, those who perceive a calling but do not live it out experience more negative consequences (e.g., lower engagement and satisfaction, more depression and anxiety) than do people who never perceived a calling at all (Gazica and Spector 2015). Qualitative research has also suggested that “unanswered” callings may lead to increased stress, regret, and frustration (Berg et al. 2010). Living a calling has also been positioned as a moderator that significantly impacts the relationship of perceiving a calling with work-related outcomes. Specifically, lower ratings of living a calling have been shown to attenuate the association between perceiving a calling and both career commitment and work meaning; these relationships are negligible or even potentially negative for those not living their calling (Duffy et al. 2012).

Living a calling seems to play a key role in tying perceiving a calling to criterion variables in diverse national contexts, as well. For example, Douglass et al. (2016) examined group differences regarding having and living a calling between working adults in India and the United States. Comparisons between groups demonstrated higher rates of both perception and living of a calling among Indian workers. Still, living a calling was a significant predictor of life satisfaction through increased life meaning and job satisfaction for both groups. Intriguingly, this relationship was weaker among Indian workers, suggesting that while US workers were less likely than Indians to perceive or live out a calling, those that do live out a calling appear to garner a greater degree of meaning, job satisfaction, and (through these mechanisms) subjective well-being than their Indian counterparts. More research is needed to better understand these dynamics. For now, we can conclude perceiving a calling is linked to a variety of positive work and life outcomes, but it is crucial for individuals who perceive a calling to actually engage in work that is consistent with that calling.

Although researchers cannot draw causal inferences from these cross-sectional designs, empirical support for these models suggest that living a calling, self-efficacy, career commitment, occupational identity, and/or meaning in life are consistent mediators that help explain the relationships between perceiving a calling and positive work, career, and general life outcomes. Longitudinal research is needed to more fully understand the direction of these relationships over time.

Longitudinal Research

Although longitudinal work on calling remains sparse, results from these studies have extended what has been discovered in cross-sectional research. Most studies conceptualise calling as a psychological construct that functions like an individual’s orientation to work, goals, or motivations. That is, performing activities consistent

with one's calling leads to heightened positive career and well-being outcomes. A handful of studies have supported this conceptualisation through examining directional effects of calling on proximal variables over time.

In a study with 269 German undergraduate students from different majors, presence of calling was found to predict vocational identity achievement 6 months later (Hirschi and Hermann 2012). In this study, vocational identity achievement was defined as the "conscious awareness of one's occupational interests, abilities, goals, and values and the structure of meanings in which such self-perception is linked with career roles" (Hirschi and Hermann 2012, p. 310). Participants were considered to have higher levels of identity achievement if they reported a combination of heightened levels of career exploration and decidedness. In a subsequent study, Hirschi and Hermann (2013) traced a sample of 846 German undergraduate students over a 1-year period, finding that higher levels of calling led to an increase in career planning and self-efficacy. Dobrow and Tosti-Kharas' (2011) longitudinal study of elite aspiring musicians also supported that presence of calling leads to increases in career self-efficacy. A portion of this extensive project followed 590 music students in high school across four time-points over 7 years. They found that initial reports of having a calling predicted the following psychological outcomes 3.5 and 7 years later: domain satisfaction, career self-efficacy, career insight, and intentions to pursue a career in music. Calling also predicted behavioural outcomes like choosing a music-oriented college program. The results of these three longitudinal studies suggest that calling may predict positive work-related, well-being, and behavioural outcomes over time.

Recognising that clarity is needed regarding the underlying mechanisms linking calling to positive outcomes, Praskova et al. (2014) investigated engagement in career strategies as a potential mediator between calling and work and well-being outcomes. The authors conducted a 2-wave longitudinal study with Australian emerging adults, finding small but significant mediation effects. Young adults with higher levels of career calling at Time 1 reported higher use of career strategies, elevated career adaptability, and higher meaning in life, 6 months later (Praskova et al. 2014). Their mediation hypothesis was supported: higher levels of career calling predicted the use of beneficial career strategies, which in turn led to higher meaning in life and greater career adaptability in young adults. More research is needed to tease out potential causal relationships, but this study suggested that perceiving a calling facilitates a plethora of beneficial career and psychological outcomes. A possible interpretation of how calling may relate to well-being and work-related outcomes is that (a) having a calling to a particular career is likely to (b) lead an individual to feel capable and committed in their line of work, (c) engage in job activities that fulfill that commitment, and thus (d) experience well-being and perform better in their job (Duffy et al. 2011; Praskova et al. 2014). One caveat, however: Duffy et al. (2014) found that over a 6-month timespan containing three time-points, living a calling was consistently better predicted by earlier career commitment, work meaning, and job satisfaction than it was a predictor for these constructs. Such findings are certainly not panoptic and more longitudinal research is required to delineate the causal relationship of calling with the aforementioned

concepts. It is highly plausible that a sense of calling may be sustained through mutually causal effects with criterion variables. For example, one's early experience of calling may influence one's sense of satisfaction, which in turn may reinforce that sense of calling, initiating a cycle in which a calling both supports and is supported by a deep sense of joy and meaning in one's work. However, these findings highlight the need to further examine what factors within the context of one's work domain follow a sense of calling, but also contribute to the development of a calling within the context of one's career.

Qualitative Research

Qualitative research on calling is growing and provides a rich picture of the complex role of calling in individuals' lives. Most studies consist of interviews with participants representing a particular occupation who already perceive or are living out their calling. For example, two studies interviewed Christian mothers in faculty positions, finding that these women endorsed having a calling to both their role as a mother as well as in their careers (Oates et al. 2005; Sellers et al. 2005). Whereas these participants highlighted many benefits of having a calling (i.e. commitment, drive, passion, and meaning), they also reported a strain associated with the demands of having commitments to multiple domains. Interestingly, participants found that acknowledging multiple callings facilitated adaptive coping and work-life balance (Oates et al. 2005; Sellers et al. 2005). Although they experienced stress from strongly identifying with both roles, identifying each role as a calling lessened this stress and provided them the opportunity to experience fulfilment in each domain.

Other qualitative studies have explored individuals' unique experiences of having a calling, finding that, although negative experiences are sometimes reported, the benefits of pursuing a calling greatly outweigh the drawbacks. Ahn et al. (2017) identified general themes related to the subjective experience of pursuing a calling for participants switching careers, finding that most participants reported a strong sense of passion, vigour, and fulfilment after switching to a career to which they felt called, despite also experiencing some financial drawbacks. Participants reported greater alignment with their purpose in life as well as increased self-worth and self-respect after switching careers (Ahn et al. 2017). Bunderson and Thompson (2009) interviewed zookeepers about their experience of having a calling, revealing similar patterns of drawbacks and benefits. That is, although the zookeepers endorsed a willingness to sacrifice money, time, and physical comfort or well-being for their work, having a calling provided them with a sense of occupational identification, deep meaning, and importance in their life.

This theme of dedication and commitment is evident across many studies of people who report having a calling. In a survey of college students that used open-ended questions, students who endorsed a domain-specific calling reported that their calling had the effect of increasing their effort and dedication towards activities within the calling-specific domain (Hunter et al. 2010). Research conducted by

Duffy et al. (2012) extends beyond the effect of calling on worker behaviours, exploring the impact of having a calling on individuals' professional and personal lives. Interviews with eight counselling psychologists who viewed their career as a calling reported that they were highly satisfied with their work life, felt blessed to be in their professional situation, and expressed high levels of work passion, energy, and productivity in their careers. These participants noted that the satisfaction and gratitude of living out their calling extended beyond their career, adding fulfilment and meaning to their lives outside of work as well (Duffy et al. 2012).

Qualitative research on individuals' experience of calling will continue to investigate participants representing diverse occupations, engaged in diverse life roles. So far, the themes that have emerged from these studies generally align with results from quantitative research, supporting the conclusion that perceiving a calling and having the opportunity to live out that calling leads to a plethora of positive work and well-being outcomes for individuals across a variety of work-domains, but not without also introducing some challenges and strains along the way.

Work as a Calling Theory

In many areas of psychology, theories are articulated, and then programs of research unfold that test those theories. Scholarship on calling has followed a different sequence, with research accumulating rapidly over the last decade without an overarching theory to guide it. Theories function to both explain and predict phenomena of interest, and a recently proposed model seeks to do both. In their Work as a Calling Theory (WCT), Duffy et al. (2018) propose a model that frames perceiving a calling as a predictor of work outcomes (both positive and negative), with living a calling positioned as the key mediator (see Fig. 9.1).

More specifically, the model summarises the research described above by proposing that perceiving a calling is linked to positive outcomes (job satisfaction and job performance) through living a calling. The link between perceiving and living a calling is itself mediated by person work meaning and career commitment. In turn, perceiving a calling also predicts work meaning and career commitment directly, and indirectly through person-environment fit; the later mediation effect is (according to the theory) moderated by one's motivation to express a calling, one's engagement in job crafting behaviours, and the organisational support one perceives. Individuals' access to opportunity is also proposed to directly impact work meaning, career commitment, and living a calling. The theory proposes that living a calling predicts positive outcomes directly, but also that in some circumstances, negative outcomes can be experienced by individuals who are living a calling. The possibility of negative effects has been introduced elsewhere (e.g., Berkelaar and Buzzanell 2015; Bunderson and Thompson 2009; Dik and Duffy 2012) but have not been thoroughly examined in research, and thus represents a contribution of the theory. The theory recognises that, under some circumstances, some individuals with a calling may experience a vulnerability to workaholism and burnout (due to a rationalised

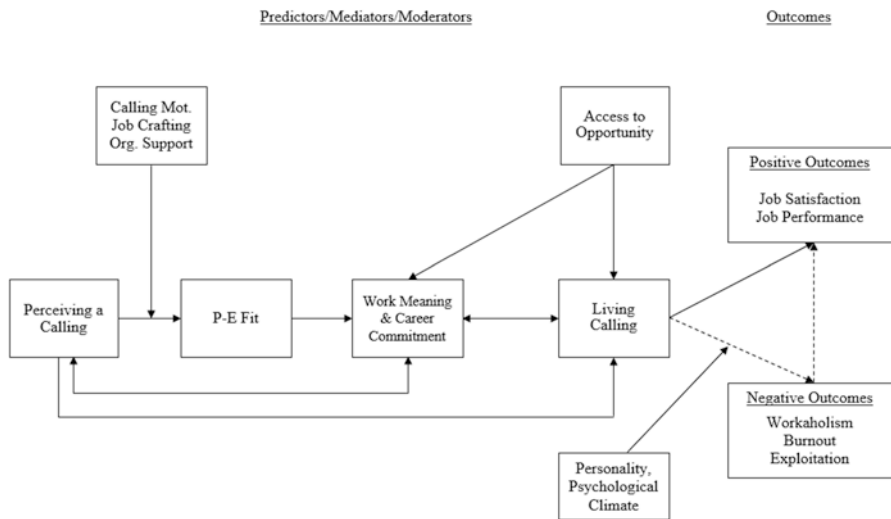


Fig. 9.1 Work as a calling theory (Duffy et al. 2018). Solid lines indicate proposed positive associations; Dashed lines indicate proposed negative associations for select individuals. (Figure used with permission from the authors)

overinvestment in the work), and/or organisational exploitation (in which they are taken advantage of by unscrupulous employers due to their high levels of intrinsic motivation). This link between living a calling and negative outcomes in turn is predicted to negatively impact satisfaction and performance, and is theorized to be moderated by personality factors (e.g., Big Five traits, perfectionism, high need for achievement, low self-esteem) and psychological climate within the workplace. These dynamics of positive effects, negative effects, and moderator variables introduces the possibility that in some circumstances, the positive and negatives may “cancel out,” resulting in a neutral impact of living a calling. However, an arguably more likely scenario is that both positive and negative impacts occur simultaneously at times, such that people with callings may experience high levels of satisfaction while also increasing their vulnerability to burnout. Understanding and predicting a possible “tipping point” in which the net positive effects move from outweighing the negative to being overtaken by it is a fascinating topic for which future research is very much needed.

The accumulated research on calling is sufficient for informing theory development, and the WCT represents the first formal theory to describe how perceiving and living a calling link to work outcomes. The theory presents a number of testable hypotheses to drive further research, including in directions that we summarise in the following section. The theory also targets only the pathways between perceiving a calling and outcomes; it does not address factors related to how one’s perception of calling may develop in the first place, a topic that represents another important area for further study. Contextual factors are also only indirectly incorporated into

WCT; clarifying the contributions of cultural influences represents yet another need for future research, especially as international scholarship continues to flourish.

Directions for Future Research

The state of research on calling within the social sciences was described as being “much like that of a toddler” in a 2013 review (Duffy and Dik 2013). The accumulating body of research has developed rapidly since then and can now be described as having entered elementary school. That means that meaningful progress has been made, but it also suggests that we have much more to learn. In this section, we highlight a few near-term directions for research to address as the next wave of research on calling commences.

Antecedents of Calling

Praskova et al. (2014) describe discerning and living a calling as an important career development process, one that may be especially poignant for (although not limited to) emerging adults who are often in the throes of making career decisions and setting career goals. And yet, little research to date has examined the developmental course of a calling (Duffy and Dik 2013). One initial study using a stratified national sample in the U.S. suggests that those discerning their calling from external sources tended to emphasize a “higher power” while those discerning their calling from internal sources often pointed towards the importance of personal qualities and goals. Interestingly, both groups also expressed a deep influence of their families on their callings (White et al. 2016). These results are suggestive but point to the need for research that more thoroughly examines the psychological processes that influence the development of a calling. Do differing experiences and social influences for engaging in a calling predict developmental patterns and/or particular ways individuals conceptualise their calling? Perhaps the above-noted differences in internal and external sources of a calling correspond with prosocial vs. self-focused motivations for engaging in work. More research is needed to better understand these relationships.

Calling’s Multidimensional Nature

Another issue that is not addressed by WCT or by extant research pertains to the multi-dimensional nature of calling. Most (although not all) scholars frame calling as multidimensional and propose and/or empirically demonstrate similar dimensions (e.g., Dik and Duffy 2009; Elangovan et al. 2010; Hagmaier and Abele 2012;

Hirschi 2011; Praskova et al. 2015; Zhang et al. 2015a). Qualitative studies investigating perceptions of calling among both working adults and college students have consistently corroborated the multidimensional nature of the construct, though some variation exists in the particular facets identified (Ahn et al. 2017; Duffy et al. 2012; Hagmaier and Abele 2012; Hunter et al. 2010; Ponton et al. 2014; Zhang et al. 2015b). Hagmaier and Abele (2012) used a qualitative study to identify three dimensions across both German and American samples: transcendent guiding force, meaning- and value-driven behaviour, and identification and person-environment-fit. These facets form the basis of their *Multidimensional Calling Measure* (MCM), which has shown cross-cultural validity. Similarly, Zhang and colleagues (2015a) found the emergence of four key themes among Chinese students' notion of calling: guiding force, meaning and purpose, altruism, and active tendency (effortful behaviour in pursuit of one's calling). Zhang et al. (2015b) then developed their *Chinese Calling Scale* (CCS), which measures three of these dimensions ("active tendency" did not emerge in their factor analysis). These measures are very similar to Dik et al.'s (2012b) *Calling and Vocation Questionnaire* (CVQ), which assesses both presence and search for a transcendent summons, purposeful work, and a prosocial orientation.

Despite these similar multidimensional understandings of calling, the preponderance of calling research has targeted total scores—one's overall sense of calling—rather than the construct's component dimensions. As a result, little is known about how these dimensions interact, or which are more or less influential, under which circumstances, and for whom, all of which are important directions for further research to address. In light of the previous section, research is also needed that examines which characteristics of individuals, work environments, tasks/situations, and broader social and cultural contexts may foster (or hinder) the development of particular dimensions of calling.

Role of Culture

This chapter has noted the increased internationalisation of research on calling, highlighting the cross-cultural relevance of the construct. In many respects, the similarities across diverse national contexts have been more striking than the differences; similar patterns of relationships between calling and criterion variables have been observed, and similar dimensions of calling emerge as well (e.g., Hagmaier and Abele 2012; Zhang et al. 2015a, b). Yet the similarities should not obfuscate the differences. Zhang et al. (2015a) found that Chinese students rarely mentioned religion when discussing the term, whereas Hunter et al. (2010) found references to God or a higher power to be more common among U.S. students. Conversely, duty to country was noted among Chinese students; less so among the Hunter et al. sample. While overarching themes were very similar across these samples, the differences are interesting and likely reflective of broader cultural influences. This points to the likelihood that other such differences may be present across diverse samples, and thus should be investigated.

Researchers may find value in applying the Cultural Lens Approach (Hardin et al. 2014; Robitschek and Hardin 2017) to evaluate ways that culture may play a role in how calling is interpreted and operationalized. This approach provides a systematic method for evaluating constructs and theories in psychology based on their cultural embeddedness, identifying opportunities for modification when examined in new cultural contexts. For example, some elements of calling (e.g., conceptualisations that focus on passion or personal meaning) may reflect individualistic values that are prominent in some cultures more so than others. Other elements (e.g., prosocial motives) may reflect collectivist values to a greater extent and find stronger emphasis within collectivist cultures (Dik et al. 2019). Researchers should also recognise that many of the samples examined in the literature draw from populations that may be relatively privileged (e.g., college students), and make efforts to examine how the construct is experienced among individuals who are typically marginalised and under-represented (Blustein et al. 2008). Access to opportunity, a key element of WCT, may influence the role and function of a sense of calling among such participants, for example, but this is not yet well understood and warrants additional research.

The Dark Side

As reviewed above, most research on calling has found it to function in positive ways as students and workers strive to experience satisfaction and meaning in their work. However, under some circumstances, some of these positive features of living a calling (e.g., career commitment) can potentially serve as a detriment. This “dark side” of calling has been identified in some qualitative studies (e.g., Bunderson and Thompson 2009; Duffy et al. 2012) and at least one correlational study (e.g., Duffy et al. 2016), but remains poorly understood. One promising path for research is to examine the extent to which people predisposed to workaholism and burnout (e.g., those who are perfectionistic, neurotic, and have low self-esteem and high need for achievement), and who enter into work environments that reinforce or normalise overwork, may be especially prone to such negative outcomes when they view their work as a calling. Of particular interest is identifying a possible “tipping point,” that is, mechanisms that influence a crossing over from the ordinarily beneficial aspects of living a calling to negative influences. Similarly, research that identifies precursors to organisational exploitation among workers with a calling can offer substantial benefit to such employees.

Calling and Career Counselling Practice

To the extent that perceiving and living a calling assist students and workers in leading more satisfying, potentially healthy lives, counselling strategies intended to promote the development of a sense of calling—and that succeed in forging pathways

that facilitate living a calling—are important to implement. Readers should bear in mind that research on interventions that promote a calling is very sparse; these suggestions are therefore tentative, pending empirical support. Also, not everyone desires a calling in the work domain. With clients who are open to (and especially those who ask for) assistance in discerning and living a calling, however, counsellors can consider employing the following strategies, drawn from the extant literature.

A calling is arguably best understood as a complimentary construct that can enhance already-established models of intervention rather than the basis of a competing career counselling strategy (Dik et al. 2009). Indeed, it may best be framed as a meta-perspective or mindset onto which diverse career counselling approaches can link rather than as an add-on variable (Dik and Duffy 2015). Counsellors operating within this meta-perspective may pursue three overarching goals. The first is to explore with clients the relationship between their career and matters of existential importance. This is especially useful for (although certainly not limited to) clients who espouse a religious or spiritual worldview (e.g. Park 2012). Second, counsellors can explore how clients' career pursuits can promote eudemonic (that is, growth- and meaning-oriented) well-being primarily, and hedonic (pleasure-oriented) well-being secondarily. Third, counsellors can actively promote prosocial values in career choice and development (Dik et al. 2012a). While pursuing these goals, counsellors can work to address concerns related to both discerning a calling and living a calling.

Discerning a Calling

Some clients who are seeking a calling may take a passive approach to the discernment process. For example, some with religious and spiritual commitments may pray or meditate and then wait passively for a revelation; others may discuss destiny or a career path they feel they were “meant” to pursue. Inviting such clients to explore their beliefs regarding how career choices are best determined can be a fruitful precursor to encouraging an active discernment process. Proactivity is strongly associated with good outcomes from career interventions (Liu et al. 2014), and active engagement in the discernment process does not preclude any particular spiritual practice; indeed, we have often advised praying clients to adopt a “pray and be active” rather than “pray and wait” approach (Dik and Duffy 2012).

One strategy for facilitating active engagement is to encourage clients to explore ways they are unique and to evaluate how their uniqueness may equip them for success in particular career pathways. This is essentially a person-environment fit approach, and well-established trait-and-factor theories (e.g., Dawis and Lofquist 1984; Holland 1997) may provide useful frameworks in implementing this strategy. A unique element of assessing fit that incorporates the prosocial element of calling

is the notion of “social fit,” or the fit between an individual’s “gifts” (e.g., interests, values, personality, abilities) and what may be required to address a particular set of social needs (e.g., environmental stewardship, caregiving, strengthening a sense of community, providing needed administrative support). This way of conceptualising fit can enhance clients’ sense of purpose and meaningfulness, and is consistent with Fredrick Buechner’s (1973) famous definition of calling as “the place where your deep gladness and the world’s deep hunger meet” (p. 95).

Finally, engaging clients in a discussion about the consonance of their career goals with their broader life goals can accomplish two important objectives. First, doing so can help foster or deepen a client’s sense of purpose, a natural result of bringing one’s work-related purpose into alignment with one’s sense of purpose for life as a whole (Park 2012). Second, doing so helps clients evaluate their sense of purpose in the first place, an exercise in identity formation that, if resolved effectively, can increase a sense of meaning in life.

Living a Calling

There are three primary paths toward assisting clients who perceive a calling in taking active steps toward living one out. The first approach is to assist clients with job search strategies intended to result in landing a job in the path to which they feel called. As Liu et al. (2014) noted in their meta-analytic research, counselling interventions that promote goal setting, teach job search skills, improve self-presentation, enlist social support, boost self-efficacy, and encourage proactivity are most effective in achieving that outcome. Yet many people lack the ability to freely choose their jobs due to any number of internal or external constraints. To help individuals who feel stuck in a job that does not seem like a calling, and who have very limited options for a career change, job crafting represents a useful strategy. Job crafting was first introduced by Wrzesniewski and Dutton (2001) and has become a topic for which research activity has intensified in recent years. Job crafting builds on the assumption that people are not passive recipients of their work experiences but rather active shapers of them. By taking steps to alter (a) their tasks, or the way their tasks are completed; (b) the relationships that people experience within the workplace; and (c) the mental representations of the work itself and its impact, individual employees can craft a job into something that aligns more closely with what they most value. Finally, counsellors can explore with clients ways to take steps to cultivate callings outside of paid employment. Several studies have examined how people with “unanswered callings” are able to pursue a calling through family, volunteer, or leisure pursuits. Doing so often requires protecting the time they spend engaging in their callings just as they may a job responsibility, to ensure it does not become swallowed up by competing responsibilities.

Calling and Organisational Practice

Research examining the mechanisms through which organisations can foster or instill a sense of calling among their employees has been sparse. However, theorists have identified aspects of work environments that may contribute to meaningful work, a key aspect of calling. For example, Hackman and Oldham (1976) recommended that organizations emphasise five job dimensions, of which three were expected to contribute to work meaningfulness. These include task significance (the degree to which one's work impacts others), skill variety (the degree to which a job presents variation in tasks and necessary skills), and task identity (the degree to which one can see their work/product from beginning to completion). Steger (2017) drew from previous literature in presenting his CARMA model for fostering meaningful work, which suggests organisations demonstrate Clarity (clearness of organisational mission/purpose), Authenticity (adherence to an organisation's mission), Respect (creation of a supportive and positive culture), Mattering (showing the connection between worker contribution and the organisation's mission), and Autonomy (allowing employees freedom within their job). Limited empirical evidence also suggests that a connection to beneficiaries of one's work may increase meaning in work and put individuals more in touch with their prosocial impact (Grant 2012). Without doubt, the dearth of research directly examining organisational strategies that can facilitate sense of calling points to a need for further research.

Summary and Conclusion

This chapter summarised salient trends in research that has investigated a sense of calling in career development. More specifically, we presented a brief overview of various conceptualisations of calling and scales that have been developed to measure calling. We also provided an overview of research being conducted worldwide on the correlates (and to a lesser extent, antecedents and consequences) of having and living a calling, particularly with respect to well-being and career-related attitudes. Work as a Calling Theory (WTC) provides a useful framework for conceptualising how perceiving a calling and living a calling relate to various positive (and some potentially negative) career and well-being outcomes. This theory, alongside various considerations noted throughout the chapter, provides both researchers and counsellors with valuable information to guide the future development of scholarship on calling and also tools for its application. We reinforced the importance of incorporating cultural considerations into both research and practice, described strategies that may foster a sense of calling in career counselling interventions, and briefly noted the role of organisations in developing positive workplace environments. Overall, having and living a calling is a vital contributor to career-related and general well-being. Therefore, it is important for research and theory to continue to advance our understanding of calling and how it can be optimised through counselling and organisational practices worldwide.

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Part II
Career Guidance in Practice

Chapter 10

From Career Development to Career Management: A Positive Prevention Perspective



Annamaria Di Fabio

Abstract In the current post-modern era the workplace is characterised by many changes and transitions. Individuals experience instability and insecurity in a fluid and flexible scenario. In this framework there is a shift from career development to career management and life management along with the contribution to career management through self-management. The chapter firstly delineates the career theories in the twentieth century in relation to career development. Then the career theories for the twenty-first century are introduced emphasising the perspective of career and life management. A positive prevention perspective is presented that underlines a framework focusing on strengthening resources through early interventions. New axes of reflection to enlarge theoretical and intervention perspectives are shown: Purposeful Identitarian Awareness and the Positive Self & Relational Management (PS&RM). Furthermore the chapter introduces positive career outcomes (resilience, career decision-making self-efficacy, and employability) and presents a brief review regarding their antecedents. The contribution also highlights positive preventive resources for career management in the twenty-first century: intrapreneurial self-capital, acceptance of change, positive relational management; and workplace relational civility. The chapter thus shows the potentialities of this positive prevention perspective for career and life management for research and intervention in the twenty-first century.

Keywords Career development · Career management · Positive prevention perspective · Positive career outcomes · Positive preventive resources

The twenty-first century is characterised by many changes in the workplace with frequent work transitions (Athanasou and Van Esbroeck 2008; Blustein 2006, 2011; Di Fabio 2012, 2014d; Guichard 2013; Luke et al. 2016; McIlveen 2009; Mcilveen and Patton 2006; Perera et al. 2018; Perera and McIlveen 2018; Savickas 2011).

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Nowadays, the world of work is indeed unpredictable, competitive, and turbulent (Di Fabio 2012, 2014d; Guichard 2013; Savickas 2011). Individuals no longer experience stability and security but face flexible work and fluid organisations in a liquid society (Bauman 2000). In this postmodern scenario, we have moved beyond a singular understanding of career development (Osipow 1999, 2012; Super 1957, 1980) to an understanding of career management (Savickas 2011) and life management (Guichard 2013; Savickas 2013), as well as the contribution to career management through self-management (Di Fabio 2014a; Di Fabio and Kenny 2016a). At the same time, we have also moved theoretically from the notion of the career project (Savickas 2011) to the life project (Guichard 2013; Savickas 2013), which is recognised, furthermore, as an inherently relational act (Blustein 2011; Di Fabio 2014a).

In career management, individuals develop a set of skills that enable them to develop insight into themselves and their environment that can equip them to negotiate and harmonise opposing forces and navigate their increasingly unpredictable “chaotic” careers (Guichard 2013; Savickas 2011). Furthermore, in the twenty-first century we also recognise the contribution of self-management for career and life management as individuals are more fully responsible for their work project and life project (Di Fabio 2014a). On the basis of Career Construction Theory (Savickas 2005, 2011), Self-Construction Theory (Guichard 2004, 2005, 2008, 2009), and Life Construction Theory (Guichard 2013), individuals have to maintain their employability and actively manage their careers through adaptability, intentionality, life-long learning, autobiographical reasoning and meaning, and realising the Self as project (McAdams 2001). People are considered as plural (i.e., having plural selves), with individual identity comprising a dynamic system of subjective identity forms, interacting in different contexts, and across different experiences, through which they develop different images of themselves and take on roles that are different from one context to another in implementing their Self (Guichard 2005, 2013). In this framework, career and life management through self-management was conceptualised as an inherently relational act (Blustein 2011; Di Fabio 2014a). This framework requires reflexivity about oneself and one’s own environment in order to negotiate in a successful manner the increasingly unstable and tumultuous career paths. It also asks for building resilience (Di Fabio et al. 2014) and building the strengths of individuals (Di Fabio 2014b; Di Fabio and Kenny 2016a), stressing the importance for considering a positive primary prevention perspective (Di Fabio 2014a).

Career Theories in the Twentieth Century: The Career Development

The roots of career development can be identified in the three-step formula articulated by Parsons (Brown 2002). A wise choice of a vocation is based on three factors: (1) understanding oneself in terms of aptitudes, abilities, interests, ambitions, resources, limitations, and their causes; (2) considering requirements, factors of

success, advantages and disadvantages, compensation, opportunities, and possibilities in different works; (3) reflection on the relationship of the two above factors to each other (Parsons 1909, p. 5). This initial conceptual framework for career decision-making and career counselling (Brown 2002) characterised the first part of the twentieth century focusing on trait-and-factor theory including personality, specific aptitudes and interests to define the career choice.

In the fifties, Ginzberg et al. (1951) proposed a radically new theory of career development breaking with the static trait-and-factor theory: career development was then seen as a lifelong developmental process, suggesting

that career choices are based on compromise. Subsequently Super (1953) developed his career choice and development theory merging trait-and-factor theory, developmental psychology, and personal construct theory (Kelly 1955) and focusing on the idea of self-concept. Super (1953) assumed that career choice is the implementation of the self-concept and career can be considered as a predetermined and predictable evolution through stages or as the succession of vocational activities across the life span. The fundamental contributions of Super (1953, 1957) to career development are the emphasis on self-concept and the awareness that the self-concept changes with new experiences over time. Whereas before Super's theory career development was essentially considered as a singular choice, he introduced the idea that career development is a lifelong activity. In the second half of the twentieth century career is thus defined as predetermined and predictable evolution through stages (Super 1957, 1980) or as the succession of vocational activities through the life span (Osipow 1999).

In the same period, Roe (1956) proposed her theory based on Maslow's need theory and on personality theory, underlining how early childhood environments influence children to choose specific occupational groups. She presented a classification of occupations in terms of fields of interest by occupational level. Some years later, Holland (1959) identified professional personalities on the basis of vocational interests, highlighting the importance of the degree of agreement between the personality and interests of individual and the six types of working environment: Realistic, Investigative, Artistic, Social, Enterprising, Conventional. Combining the presence of these six personality types in a decreasing order it is possible to create an individual code.

Since the mid-fifties the production of new theories of career choice and development continued to emerge. Bordin et al. (1963) developed a career development theory based on the psychodynamic principles that related career choice to Freud's psychosexual stages with an emphasis on the role of play in work of adult people. Lofquist and Dawis (1969) conceptualised work adjustment theory, as a way of conceptualising the fit between an individual and a job or organisation. In 1979, Krumboltz and his collaborators developed the social learning theory of career decision making, underlining the interactions of genetic factors, environmental conditions, learning experiences, cognitive and emotional responses, and performance skills that influence the nature of the decision-making process (Krumboltz et al. 1979). The various combinations of these factors interact over time to lead to different

decisions. Subsequently, Gottfredson (1981) conceptualised the developmental theory of occupational aspiration, identifying the concepts of circumscription and compromise in career development. Some years later, Peterson et al. (1991) developed a theory of career development based on a cognitive information-processing model to explain the content and the process of making career choices. In 1994, Lent, Brown, and Hackett published their model of career decision making, which is grounded in social-cognitive theory and put forward career decision-making self-efficacy as a fundamental concept for realising adaptive decisions (Bandura 1986). In 1996, Brown and Crace formulated Brown's values-based model of career decision making, which emphasises the central importance of values in career counselling and occupational choice.

Career Theories for the Twenty-First Century: The Career Management

The career theories for the twenty-first century emphasise the perspective of career and life management. The principal theories of reference that will be briefly delineated are the following: Career Construction Theory (Savickas 2011), Self-Construction (Guichard 2004, 2005) and Life Construction Theory (Guichard 2013), Psychology of Working (Blustein 2006) and Relational Theory of Working (Blustein 2011).

Career Construction Theory

Career Construction Theory (Savickas 2005) aims to explain the processes through which individuals give meaning to their vocational behaviours. Starting from the consideration that the world of work is formed through a personal construction within social reality (Savickas 2005), Career Construction Theory describes how individuals place work within their lives. The focus is to understand how individuals construct and give meaning to reality. Interpretative processes of individuals, their negotiation of meaning in different contexts, and their social interactions lead to the choice of a specific occupation. Individuals construct their careers, giving meaning to their vocational behaviour and their working experience. Savickas (2005) distinguishes between two kinds of career: the objective career and the subjective career. The objective career is the sequence of occupations carried out by the person whereas the subjective career shapes working experiences through stories that are meaningful for the person. The latter is a subjective construct, underlining the personal meaning given to the past, present and future experiences of individuals. People thereby give meaning and direction to vocational behaviour through their subjective interpretation of reality (Savickas 2005).

Career Construction Theory (Savickas 2005) is based on personal constructivism and on social constructivism. Individuals are considered as proactive agents capable of auto-organising themselves, and establishing and maintaining an order in their own experiences (personal constructivism) (Kelly 1955). Auto-organisation is situated in the social context considering language, culture, relationships, and is essential for the construction of meaning (social constructivism) (Gasper 1999). A contextualised perspective is underlined (Savickas 2001, 2005, 2011) and career construction is seen as a process of environment fit, rather than the growth of internal structures within the individual. The process of career construction considers the analysis of working roles and also takes into consideration different training experiences. It is not the simple sum of past experience but the meaning that a person attributes to these experiences.

In the Career Construction Theory framework (Savickas 2005), a significant construct is career adaptability or the individual's perceived ability to anticipate changes and imagine one's own future in an ever-changing context (Savickas 1996, 2011; Savickas and Porfeli 2012). The career adaptability construct is composed of four dimensions: concern that indicates interest for one's own future, for preparing oneself in advance for the next step; control regards the responsibility for shaping oneself and one's own environment, for realising the next step, using self-discipline, commitment, and persistence for preparing for the future; curiosity for exploring possible selves and alternative scenarios, imagining oneself in different situations and in different roles; confidence in one own ability to realise one's own choices and one's one life project in line with one's own aspirations.

Within Career Construction Theory (Savickas 2005), the concepts of narratability and biographicity are developed. The self-construction process is realised through the construction of self as story (*storied self*) as the self represents an internal compass for negotiating transitions. Thus, the story is the meaning attributed to personal experience and to the achievement of one's own personal goals. Narratability refers to the stories significant for clients relative to life schemes and choice constellations. Narration is used to reduce confusion, resolving doubts and facilitating choices. Stories help to resolve indecision, explaining change and inspiring action. During career counselling, clients tell the career counsellor all possible stories that are linked to their own current aims and that inspire action. Clients reconstruct the past to construct the present and prepare their path for future steps (Savickas 2008).

Story-telling is connected to biographicity (Alheit and Daussien 1999). Individuals use their biographical agency to face transitions (Savickas 2011), giving personal meaning to past memories, to personal experiences and to future aspirations, constructing a life theme during the career counselling intervention. The meaning of these biographical themes allow clients to adapt to different changes in their professional paths (Savickas 2011). Career Construction Theory advances the theory of McAdams (2001) and McAdams and Olson (2010) that differentiates actor, agent, and author in relation to different career phases. The position of actor is relative to vocational guidance where the objective is the matching between individual characteristics and occupations; the position of agent regards career education where individuals develop their career through stages; the position of author concerns the Self as story.

Self-Construction and Life Construction Theory

Self-Construction (Guichard 2004, 2005) and Life Construction Theory (Guichard 2013) have contributed to construct contemporary perspectives where the focus is on career management deeply anchored also to life management. Self-Construction Theory (Guichard 2004, 2005, 2008, 2009) considers the life construction of an individual in different contexts and a significant aspect of this theory relates to the consideration of working activities as significant for people only in relation to their other activities and life experiences (Guichard 2004, 2005, 2008, 2009). In the Self-Construction Theory, people are considered as plural beings with a dynamic individual identity and individuals unify themselves by constructing expectations for their future, starting from their own personal experiences. They interact in different contexts, obtaining different experiences that contribute to different self-images based on the different roles they carry out in different environments and the construct of Subjective Identity Form (SIF, Guichard 2010) represents the self that an individual develops in each specific context. Each SIF corresponds to a specific social role and includes the way in which individuals perceive themselves in that specific role and specific context. Some SIFs regard contexts where individuals interact in a specific period of their live, while other SIFs are related to ways in which individuals imagine themselves in the future or are related to past experiences. The Self-Construction Theory (Guichard 2004, 2005, 2008, 2009) considers individual identity as multiple and dynamic within a Subjective Identity Forms System (SIFS). The SIFS of an individual is dynamic and some Subjective Identity Forms (SIFs) are more relevant than others. The SIFs that are more significant for individuals in their SIFS generally produce aspired SIFs. The aspired SIFs stimulate individuals to imagine their own future, giving priority to those perspectives that give consistency to all the SIFs of a person.

The Self-Construction Theory responds to the following fundamental question that Guichard (2010) identified: “What could be meaningful to my life?” This question is the basis for the Life Construction Theory (Guichard 2013) that emphasises self-management in building a life full of meaning for the individual. In Life Construction Theory, dialogue counselling centres on forms of reflexivity to raise awareness about one’s own Subjective Identity Forms System (SIFS) and to enable individuals to design and re-design themselves (Guichard 2013).

Dialogue counselling works on SIFs and SIFS. In this theoretical framework, the transition from career project to life project underlines the SIFS subjective identity forms system in relation to the roles individuals attribute to themselves. This happens not only in a professional context but in all life contexts, thus defining a wider project that considers individuals in their complexity and plurality. The evolution of Self-Construction Theory (Guichard 2004, 2005, 2008, 2009) in Life Construction Theory (Guichard 2013) indicates that in postmodern societies, individuals need to unify themselves by connecting their different life experiences with the narratives of future events, thus contributing to the meaning of their career and lives.

Psychology of Working and Relational Theory of Working

The evolution of career theories in the twenty-first century has also been advanced in two ways through the Psychology of Working (Blustein 2006) and the Relational Theory of Working (Blustein 2011). The first contribution is the recognition that guidance and career counselling psychology had an interest traditionally in white collar workers who had considerable volition in their life choices (Blustein 2006). In the Psychology of Working, Blustein called upon the field to consider more fully the needs of the marginalised who have less choice in their lives (Blustein 2006). The theoretical work of Blustein (2006, 2011) and others (Blustein et al. 2004; Greenhaus and Parasuraman 1999) also advanced theory in recognising that life and career choices are rarely independent from the relational contexts in which the individual is engaged. This contextualised perspective underlines the role of family, peer, social and cultural factors in the working lives of people (Blustein et al. 2004; Flum 2001; Richardson 2000, 2012; Schultheiss 2003). Following from these assumptions, an integrated relational perspective emerges that – unlike traditional theories of career choice and career development – is based on the relational context of work-related behaviours (Blustein 2011). Blustein has thus enriched theory with the inclusive psychology of working (Blustein 2006) and the relational theory of working (Blustein 2011).

The inclusive psychology of working (Blustein 2006) recognises that work serves to satisfy three fundamental needs: needs for survival and power, needs for social connection, and needs for self-determination, that are, in turn, associated with the well-being and life satisfaction of individuals. The relational theory of working (Blustein 2011) highlights how work is an inherently relational act. Conceiving work as a relational act also underlines the fact that every decision, experience, and interaction with the world of work is understood, influenced and shaped by relationships (Blustein 2011). In this perspective, the career and life projects are also inherently relational acts (Di Fabio 2014a; Blustein 2011).

Furthermore the relational theory of working highlights the following principles: (a) complex and reciprocal interactions exist between the workplace and other areas of life of the person; (b) the ways in which people attribute meaning to relationships with others and the social world in general are important; (c) how relational influences (both past and present) are internalised, and their implications on the modality with which individuals experience aspirations, interests, values, and motivations, should be considered. With attention to these principles, the relational theory of working helps thus to create theoretical bases for systemic and prevention interventions in relation to the risks and challenges of the working world (Blustein 2011), facilitating significant progress in understanding the role of work and work-related relationships.

Positive Prevention Perspective

The positive prevention perspective has its roots both in positive psychology (Seligman 2002; Seligman and Csikszentmihalyi 2000) and in a prevention framework (Di Fabio and Kenny 2015, 2016a, b; Di Fabio and Saklofske 2014b; Hage et al. 2007; Kenny and Hage 2009), with the focus on enhancing and promoting resources and talents through early intervention. Positive psychology (Seligman 2002; Seligman and Csikszentmihalyi 2000) focuses on promoting well-being, both hedonic (Watson et al. 1988) and eudaimonic (Ryan and Deci 2001; Waterman et al. 2010): hedonic well-being comprises an affective evaluation in terms of positive affect and negative affect (Watson et al. 1988) and a cognitive evaluation in terms of life satisfaction (Diener et al. 1985), eudaimonic well-being encompasses optimal functioning and self-realisation (Ryan and Deci 2001), life meaning and purposefulness (Waterman et al. 2010), and positive functioning (Ryff 1989).

In a preventive perspective (Di Fabio and Kenny 2015, 2016a; Di Fabio and Saklofske 2014b; Hage et al. 2007; Kenny and Hage 2009) the effort to increase resources of individuals is fundamental with the aim of building strengths (Di Fabio et al. 2016; Di Fabio et al. 2014; Seligman 2002). Primary prevention aims to prevent the development of a problem before it starts and to also promote maximal well-being. The focus on building resources and strengths of individuals in a primary positive preventive framework (Di Fabio 2016b) is highly relevant for promoting career management through self-management in the twenty-first century. The best practice guidelines on prevention for psychologists of the American Psychological Association (Hage et al. 2007) offer specific suggestions for career practice and research. The guidelines underline the importance of addressing both the individual and the contextual/systemic factors that have a role in psychological distress and well-being. Research and practice that encompass both individual and systematic factors might, for example, foster prevention interventions that aim to increase the competence and coping capacities of the individuals, and seek to simultaneously influence national and institutional policies and practices that promote optimal development (Nation et al. 2003). With regard to intervention for career and self-management, factors related to the intersection of racial identity, career development and school engagement (Kenny et al. 2006) and gender differences (O'Brien et al. 2000) should be considered for enhancing strengths, reducing environmental barriers, and promoting positive and inclusive career development and expanding choice for all.

In this positive preventive perspective, several theoretical frameworks are notable. Positive Youth Development (PYD) underlines the relevance of building individual resources and strengths, not only as protective factors for coping with challenge, but also as resources that permit young people to fully flourish and contribute meaningfully to society (Di Fabio et al. 2016). Positive Adult Development (PAD, Commons 2002; Helson and Srivastava 2001) in the same way stresses the capacity of individuals to cope adaptively with change and challenge across the life span (Commons 2002; Helson and Srivastava 2001). Positive Lifelong Development

(PLD, Colby and Damon 1992) highlights resources that promote optimal health and quality of life (Colby and Damon 1992). Drawing from these perspectives, the Positive Self & Relational Management (PS&RM, Di Fabio and Kenny 2016a) was introduced. The PS&RM will be described in the next section.

A New Framework for Career Management in the Twenty-First Century

The introduction of a new positive framework for career management in the twenty-first century offers new axes of reflection to widen theoretical and intervention perspectives. In this framework the two axes are Purposeful Identitarian Awareness (Di Fabio 2014d) from reflexivity to self-attunement and the Positive Self & Relational Management (PS&RM) model (Di Fabio and Kenny 2016a).

Purposeful Identitarian Awareness: From Reflexivity to Self-Attunement

Purposeful identitarian awareness (Di Fabio 2014d) has its origin in narrative identity (Savickas 2011, 2013) and plural selves (Guichard 2008, 2010, 2013), informed furthermore by the two key meta-competences for the twenty-first century: adaptability (Savickas 2001; Savickas and Porfeli 2012) and identity (Guichard 2004, 2010), and enriched by the relational theory of working (Blustein 2011). Adaptability refers to the ability of individuals to anticipate changes and their future in a mutable context and comprises the four principal dimensions of Concern (Interest for the future), Control (Control/Responsibility), Curiosity (Curiosity for the future), and Confidence (Self-confidence) (Savickas 2001; Savickas and Porfeli 2012). Identity (Guichard 2004, 2010) represents a competence to empower through the concept of narratability, biographicity, and reflexivity, in terms of a process of facilitation for discovering life themes writing the next chapter of one's own life (Maree 2013).

A successful construction of the purposeful identitarian awareness regards the authentic Self and self-attunement (Di Fabio 2014d). The authentic Self considers the individuation of objectives that are most significant for the individual in line with one's personal formula of success (Savickas 2011) and realisation of a life of true meaning (Bernaud 2015) and success as defined by the self and not hetero-directed (Di Fabio 2014d). The authentic self (Di Fabio 2014d) is an essential aspect of positive psychology that highlights the importance of realising aims that are of intrinsic interest and in line with who we are, our true self, and what we really want to do in our lives as important predictors of success (Di Fabio 2014a; Sheldon and Houser-Marko 2001). The self-attunement (Di Fabio 2014d) includes the integration, on the one hand, of the objective talents and potential (what I am able to) and,

on the other hand, the subjective talents and potential (what energises me, what motivates me to do) associated with a self-construction rich of real meaning (Di Fabio 2014d, 2016b). A self-attunement perspective allows the individual to realise a comparison between objectivity and subjectivity approach to promote the best performance based on deeply meaningful individual goals (Di Fabio 2014d).

The discovery and attribution of meaning to work activities and other types of activities are also fundamental for the twenty-first century (Bernaud 2015; Di Fabio and Blustein 2016) in relation to the challenges of attaining decent work and decent lives (Di Fabio and Blustein 2016). The Life Meaning Theory (Bernaud 2015) highlights that meaning can be seen as a product and as a process. Meaning is considered as a product in terms of the result of existential reflection; meaning also constitutes a process in terms of the complex investigation concerning past, present and future to plan valued routes for one's own life. Moreover, work meaning is also related to the subjective evaluation of the individual and is context-dependent (Rosso et al. 2010). The Relational Theory of Working (Blustein 2011) underlines the importance of relationships for work meaning.

According to a positive psychology perspective for career and life management, work meaning includes coherence, direction, significance, and belonging (Di Fabio 2016c; Di Fabio and Maree 2016; Schnell et al. 2013), and is thereby associated with the sustainability of personal project (Di Fabio 2016c, 2017b) in life and career.

Meaningfulness and Positive Self & Relational Management (PS&RM)

In the new positive framework for career and life management in the twenty-first century, the meaningfulness of life and career projects has emerged as the main direction and point of reference (Di Fabio 2016a). A shift from a motivational paradigm to a meaning paradigm (Di Fabio and Blustein 2016) was stressed. The motivational paradigm entails intrinsic motivation (doing a job to gain satisfaction), extrinsic motivation (doing a job for reward or to avoid a punishment), and lack of motivation (lack of awareness of the link between behaviour and consequences) (Ryan and Deci 2000; Tremblay et al. 2009). The meaning paradigm focuses on understanding how people can realise meaningful lives and meaningful work experiences to answer the challenges of an unstable and ever-changing world of work of the twenty-first century. There is a call for the sustainability of life and work projects (Di Fabio 2016a, 2017b) anchored to a meaningful life and work construction (Di Fabio and Blustein 2016).

In this framework, we introduce the Positive Self & Relational Management (PS&RM, Di Fabio and Kenny 2016a) model that specifies positive lifelong development as “the development of individuals’ strengths, potentials, and varied talents

from a lifespan perspective and the positive dialectic of the self in relationship” (Di Fabio and Kenny 2016a, p. 3). The PS&RM embraces a preventive perspective (Hage et al. 2007; Kenny and Hage 2009), highlighting the importance of individual strengths (Di Fabio and Blustein 2010; Di Fabio and Kenny 2012a, 2015; Di Fabio and Palazzeschi 2009, 2012; Di Fabio and Saklofske 2014a, b) and relational strengths (Blustein 2011; Di Fabio and Kenny 2012b). The PS&RM is located in the Positive Psychology perspective (Seligman 2002; Seligman and Csikszentmihalyi 2000), is in line with PYD (Kenny 2007; Lerner 2002), and draws from the inclusive psychology of working (Blustein 2006), the relational theory of working (Blustein 2011), and career theories for the twenty-first century, including Career Construction Theory (Savickas 2005), Self-Construction and Life-Construction Theory (Guichard 2005, 2013), and comprises life meaning (Bernaud 2015), and meta-reflection and reflexivity highlighting awareness and self-insight (Di Fabio 2014d; Guichard 2009, 2013; Maree 2013). The PS&RM model encompasses three constructs: Positive Lifelong Life Management, Positive Lifelong Self-Management, and Positive Lifelong Relational Management. The first construct Positive Lifelong Life Management includes hedonic and eudaimonic well-being. Hedonic well-being is conceptualised by the presence of positive emotions over negative emotions and life satisfaction in the global cognitive judgment regarding one’s own life. The presence of meaning in one’s own life and the authenticity of one’s own Self characterise eudaimonic well-being. Positive Lifelong Self-Management highlights individual resources for coping adaptively with changes and transitions in work and life. Intrapreneurial Self-Capital refers to a core of individual intrapreneurial resources to face with continuous changes, transitions and challenges for creating innovative solutions (Di Fabio 2014c). Career adaptability and life project reflexivity are additional personal resources for realising a clear and defined projectuality of one’s own life, assessing the authenticity of this projectuality, and gaining awareness of the risks entailed in acquiescence (Di Fabio et al. 2018). The third construct, Positive Lifelong Relational Management includes resources for relational adaptation within work and life contexts, focusing on trait emotional intelligence relative to self-evaluation of one’s own emotional intelligence abilities, perceived social support from family, friends and significant others, and the management of positive relationships in terms of respect, caring and connection expressed in three forms (for others, for themselves, by others towards themselves) (Di Fabio 2016a).

The PS&RM model (Di Fabio and Kenny 2016a) highlights both the value of the development of strengths of individuals, of their potential and their talents in a lifelong perspective (Blustein 2011; Di Fabio and Kenny 2016a; Di Fabio and Maree 2013) and the importance of dialectic with the self and across relationships with others, to manage in an optimal manner the current complexity of numerous personal and professional transitions (Di Fabio and Kenny 2016a).

Positive Career Outcomes

In the twenty-first century, positive career outcomes for meeting the challenges of the current post-modern world are defined mainly in terms of resilience, career decision-making self-efficacy, and employability (Di Fabio and Kenny 2015). Resilience relates to the capacity of individuals to face and overcome adversity and to cope with challenges (Campbell-Sills and Stein 2007; Luthar 2006). It also refers to the perception of being able to cope effectively with change and to persistently try to reach one's own objective in spite of adversity (Campbell-Sills and Stein 2007). Career decision-making self-efficacy refers to the individual's belief about one's own capability to successfully perform tasks related to the career decision-making (Betz et al. 1996). Employability has many different definitions in the literature and is thus considered an in-progress construct (Di Fabio 2017c) that includes concepts such as the maintenance of work (Hillage and Pollard 1998); personal resources (Fugate et al. 2004); employability orientation, in terms of "employees' attitudes toward developing their employability for the organisation" (Van Dam 2004, p. 29); occupational expertise, anticipation of work, optimisation of opportunities, balance between personal and professional needs (Van der Heijde and Van der Heijden 2006); sustainability of work, qualifications, future-oriented perspectives (Rothwell and Arnold 2007); meta-competences (behavioural adaptability, self-knowledge, career orientation awareness, sense of purpose, self-esteem) (Coetzee 2008); and internal and external factors (De Cuyper and De Witte 2011). Resilience, career decision-making self-efficacy and employability are positive career outcomes full of value for career management in the twenty-first century. Regarding their antecedents in the literature it is important to offer a brief review for each of the three variables.

Regarding the antecedents of resilience, personality traits and, especially, the Big Five personality traits are traditionally analysed. Resilience (Connor and Davidson 2003) has been associated inversely with neuroticism, and positively with extraversion and conscientiousness in undergraduate students (Campbell-Sills et al. 2006). The relationships between resilience (Connor and Davidson 2003) and Big Five personality traits were studied in different cultural contexts. In the Chinese context both with adults and college students (Yu and Zhang 2007), the personality trait of conscientiousness correlated more positively with resilience than other personality traits (Connor and Davidson 2003). Other relationships with resilience (Connor and Davidson 2003) also emerged, correlating inversely with neuroticism and positively with extraversion but also with openness and agreeableness (Yu and Zhang 2007). In the Indian context, among undergraduate and postgraduate students (Singh and Yu 2010), positive relationships (Connor and Davidson 2003) emerged in particular between resilience and Openness and Agreeableness. In the Italian context for high school students (Di Fabio and Saklofske 2014b) resilience (Connor and Davidson 2003) was related positively with extraversion and emotional stability. A recent study carried out in the Italian context studied resilience (Wilson et al. 2017) in relation to three personality traits models among both university students and workers.

Resilience was positively correlated with the emotional stability scale of the Big Five Questionnaire (BFQ, Caprara et al. 1993) and inversely correlated with the neuroticism subscale of the *Mini International Personality Item Pool Scale* (Mini-IPIP, Donnellan et al. 2006). Regarding the more recent personality model of HEXACO-60 (Ashton and Lee 2009), the extraversion dimension correlated most strongly with resilience, whereas for the traditional Eysenck personality model (Eysenck et al. 1985), neuroticism was inversely correlated with resilience. Although resilience was related positively with extraversion and inversely with neuroticism in different cultural contexts, the study of relationships between personality traits and resilience demonstrated many varied results and the need for further study. For example in eastern countries as China (Yu and Zhang 2007) and India (Singh and Yu 2010) correlations also emerged with openness and agreeableness perhaps because they are more collectivistic cultures where personality traits relative to cordiality and cooperativeness and openness to different experiences and cultures allow people to be more resilient.

A recent review that summarised the existing literature on resilience (Scoloveno 2016) underlined antecedents of resilience other than personality traits, including social support, optimism, and hope. Social support favors resilience because supportive relationships (family, friends, significant others) can be considered resources during periods of adversity; optimism fosters positive participation in life and successful adaptation to stress; hope permits individuals to imagine a successful future in facing stressful situations (Scoloveno 2016).

The antecedents of career decision-making have been extensively studied in the literature. In the social cognitive model of career self-management (Lent and Brown 2013), Lent et al. (2017) analysed among college students the relationship of career decision-making self-efficacy and varied sources of self-efficacy, including personal mastery, verbal persuasion, vicarious learning, and emotions (both positive and negative) experienced in relation to career exploration and decision-making as assessed with the *Career Exploration and Decision Learning Experiences* (CEDLE) scales (Ireland and Lent 2018). The results showed that the source variables have a role in explaining self-efficacy, in particular personal mastery and positive emotions.

Thinking styles have also been studied as antecedents of career decision-making self-efficacy (Fan 2016). Intellectual style refers to people's preferred ways of processing information and dealing with tasks (Sternberg 1997). In university students, creativity-generating (Type I) thinking styles assessed by the Thinking Style Inventory-Revised II (Sternberg 1997) played a positive role in students' career decision-making self-efficacy. Furthermore, no significant relationship emerged between norm-conforming (Type II) thinking styles and career decision-making self-efficacy detected through the *Thinking Style Inventory-Revised II* (Sternberg 1997).

Another variable studied as an antecedent of career decision-making self-efficacy is attachment. Wright et al. (2017) studied undergraduate college students from a university in the Rocky Mountain region in the USA and found that participants with greater avoidant and anxious attachment patterns assessed by the *Experiences*

in *Close Relationship-Revised* (ECR-R, Fraley et al. 2000) reported lower levels of career decision-making self-efficacy. The findings offer an integration of social cognitive career theory (SCCT, Lent et al. 1994, 2000) and attachment theory (Bowlby 1973), highlighting how attachment patterns impact views of self and others in ways that influence their confidence in coping with career tasks.

A recent study (Hyoyeon 2016) analysed the role of acculturation to the host culture, acculturation to the home culture, and dispositional hope in career decision self-efficacy (CDSE) among Korean international undergraduate students enrolled in U.S. universities. The results showed that hope and acculturation to the host culture positively explain career decision-making self-efficacy, underlining, in particular, the role of hope.

Regarding the antecedents of employability in the literature there are only few studies that have examined these relations (Wittekind et al. 2010). Antecedents of employability considered in the literature are personality traits (Di Fabio and Bucci 2013, 2015; Wille et al. 2013); human capital and labor market opportunities (Berntson et al. 2006); education, support for career and skill development, current level of job-related skills, willingness to change jobs, willingness to develop new competencies, opportunity awareness, and self-presentation skill (Wittekind et al. 2010).

Some studies analysed the relationship between personality traits and perceived employability. Wille et al. (2013) in a study of Flemish college students showed positive associations between perceived employability as evaluated through four items adopted from the *Career Worries Scale* of the *Career Attitudes and Strategies Inventory* (CASI; Holland and Gottfredson 1994) and personality traits of Agreeableness, Openness and Emotional Stability. Another study of university students carried out in the Italian context (Di Fabio and Bucci 2013) showed positive relationships of perceived employability (measured with *Self-Perceived Employability Scale for Students*; Rothwell et al. 2008) with Extraversion and Conscientiousness, underlining the role of personality traits and the need for further in-depth analysis in relation to employability. In a subsequent study (Di Fabio and Bucci 2015) with both Italian high school students and Italian university students, a stronger and negative association was found between employability (still measured with *Self-Perceived Employability Scale for Students*; Rothwell et al. 2008) and the personality trait of Neuroticism, than for other personality traits. In the same work the relation between employability and Extraversion was highlighted. These results call for further in-depth study on the relationships between employability and personality traits. Studying the antecedents of employability beyond personality traits, Berntson et al. (2006) examined human capital and labor market opportunities as predictors of perceived employability. A subsequent study by Wittekind et al. (2010) longitudinally analysed the antecedents of perceived employability. The antecedents considered were education, support for career and skill development, current level of job-related skills, willingness to change jobs, willingness to develop new competencies, opportunity awareness, and self-presentation skill.

A particularly promising antecedent of positive career outcomes is emotional intelligence. Emotional intelligence has been associated in the literature with a vari-

ety of positive career outcomes (resilience, career decision-making self-efficacy, employability). In the study of the EI construct, two different models have been a focus of research (Stough et al. 2009): the ability-based EI models (Mayer and Salovey 1997) and the trait EI models (Bar-On 1997; Petrides and Furnham 2001). The ability-based EI models refer to the cognitive abilities of EI, such as those necessary to elaborate emotional information (Mayer et al. 2000) whereas trait EI models refers to self-evaluation of one's own emotional and social abilities and dispositions related to emotions (Bar-On 1997; Petrides and Furnham 2001). Among trait EI models, is the Bar-On (1997) model that refers to perceived emotional intelligence, considered the perception of emotional and social competencies that determine how individuals enter in relationships with themselves and others and cope with environmental requests and pressures. Additionally, in the Petrides and Furnham model (2001), traits, called trait emotional self-efficacy, are seen as a constellation of self-perceptions and dispositions associated with emotions in the personality domain.

Regarding the relationships between resilience and emotional intelligence, a study by Di Fabio and Saklofske (2014a) sought to analyse the relationship of resilience with both ability-based (Mayer et al. 2002) and trait (Bar-On 1997; Petrides and Furnham 2000) models of emotional intelligence, controlling for the effects of fluid intelligence and personality traits among Italian high school students. This study revealed that emotional intelligence, according to the Petrides and Furnham (2000, 2001) model, explains a greater percentage of variance in resilience than self-reported emotional intelligence according to Bar-On (1997), after controlling for the effects of fluid intelligence and personality traits. Ability-based emotional intelligence did not contribute to resilience. The perception of one's own emotional intelligence is thus associated with resilience for high school students. More recent research (Di Fabio and Saklofske 2018) with Italian university students and Italian adult workers examined the contribution of trait emotional intelligence (Petrides and Furnham 2001) to resilience (Wilson et al. 2017) beyond the three most often cited contemporary personality trait models: the big five model detected through both the *Big Five Questionnaire* (BFQ, Caprara et al. 1993) and the *Mini International Personality Item Pool Scale* (Mini-IPIP, Donnellan et al. 2006); the hexagonal model detected through the *HEXACO-60* (Ashton and Lee 2009); the tree-factorial model of personality detected through the *Eysenck Personality Questionnaire Revised Short Form* (EPQ-RS, Eysenck et al. 1985). Hierarchical regression analyses showed that EI accounted for additional variance in resilience beyond that offered by each of the four personality trait models for both samples. The relationships between career decision-making self-efficacy and emotional intelligence were also studied (Di Fabio and Saklofske 2014a) in relation to both ability-based (Mayer et al. 2002) and trait (Bar-On 1997; Petrides and Furnham 2000) models of emotional intelligence, controlling for the effects of fluid intelligence and personality traits among Italian high school students: emotional intelligence according to Petrides and Furnham (2000, 2001) model explained career decision-making self-efficacy more than self-reported emotional intelligence according to Bar-On (1997)

model. This study (Di Fabio and Saklofske 2014a) also found that ability-based emotional intelligence does not contribute.

The relationships between employability and emotional intelligence were analysed in the following study of Coetzee and Beukes (2010) with predominantly black South African adolescents (mean age 17 years) where positive relationships emerged between emotional intelligence, evaluated through *Assessing Emotions Scale* (Schutte et al. 2009), and employability, evaluated through the *South African Employability Inventory* (Coetzee and Beukes 2010). Dacre Pool and Qualter (2013) found positive relationships between emotional self-efficacy and employability of working graduates from a university in the North-West of England.

In research in the Italian context (Di Fabio and Bucci 2013), relationships emerged among Italian university students between self-perceived emotional intelligence (Bar-On 1997) and perceived employability, controlling for the effects of fluid intelligence and personality traits.

Furthermore, a subsequent study (Di Fabio and Kenny 2015) examined, among Italian high school students, the joint contribution of self-reported emotional intelligence according to the Bar-On (1997) model and perceived support from friends and teachers, with three adaptive career outcomes (resilience, career decision-making self-efficacy, employability). Results from the full canonical correlational model showed that emotional intelligence and teacher support were positively associated with resilience, career decision-making self-efficacy, and self-perceived employability.

The results of these studies showed the promising contribution of emotional intelligence with positive career outcomes. Emotional intelligence is an interesting variable, furthermore, because it can be enhanced through specific training (Dacre Pool and Qualter 2013; Di Fabio and Kenny 2011; Kotsou et al. 2011; Nelis et al. 2009, 2011). In contrast with personality traits that are considered substantially stable, emotional intelligence suggests opportunities for intervention with regard to career development and career management in a preventive perspective (Di Fabio and Kenny 2015; Di Fabio et al. 2014, 2016; Kenny and Hage 2009; Hage et al. 2007). From a primary prevention framework (Di Fabio et al. 2014, 2016), it is desirable to provide early intervention in order to promote emotional intelligence, thereby enhancing the personal strengths (Di Fabio and Kenny 2015; Di Fabio and Saklofske 2014b) and psychological resources to cope adaptively with the transitions and challenges of the twenty-first century (Guichard 2013; Savickas 2011). The promise of emotional intelligence is also revealed in research related to both hedonic and eudaimonic well-being. Regarding the relationship between trait emotional intelligence and hedonic well-being, positive relationships were documented in research with university students and adults (Palmer et al. 2002; Gannon and Ranzijn 2005; Gignac 2006; Gallagher and Vella-Brodrick 2008). In the Italian context, hedonic well-being was also associated with trait measures of emotional intelligence among high school students (Di Fabio and Saklofske 2014b; Di Fabio and Kenny 2016b). Regarding the relationship between trait emotional intelligence and eudaimonic well-being, associations emerged between self-report measures of emotional intelligence and eudaimonic well-being among professional employees

in India (Raina and Bakhshi 2013). In a study of Italian high school students (Di Fabio and Kenny 2016b), relationships emerged between trait emotional intelligence and both hedonic well-being (positive affect, negative affect, life satisfaction) and eudaimonic well-being (meaning in life) (Di Fabio and Kenny 2016b). On the basis of these findings, emotional intelligence can be considered a promising variable from a primary prevention perspective (Di Fabio and Kenny 2015; Hage et al. 2007; Kenny and Hage 2009) for promoting both positive career outcomes and well-being.

Preventive Resources for Career Management in the Twenty-First Century

To effectively deal with the demands and challenges of career and life (Di Fabio 2014a; Trilling and Fadel 2009) in the twenty-first century, as aligned with the three main career theories for the twenty-first century (Career Construction Theory, Savickas 2011; Self-Construction, Guichard 2004, 2005, and Life Construction Theory, Guichard 2013); Psychology of Working, Blustein 2006), and Relational Theory of Working, Blustein 2011), individuals need to be well equipped with preventive resources that are promoted long before the individual is ready to enter the workforce. Some of these primary preventive and innovative resources are the following: intrapreneurial self-capital; acceptance of change; positive relational management; and workplace relational civility.

Intrapreneurial Self-Capital

Intrapreneurial Self-Capital (ISC, Di Fabio 2014c) is an innovative career and life construct for adaptively responding to the challenges of the twenty-first century with a scale to detect it and a specific training developed to enhance it. The ISC was developed from a positive preventive perspective (Di Fabio 2014a, 2014b, 2014c; Di Fabio and Kenny 2016a; Kenny and Di Fabio 2009; Kenny and Hage 2009; Kenny et al. 2009; Hage et al. 2007) and anchored to the main three career theories for the twenty-first century: Career Construction Theory (Savickas 2011), Self-Construction (Guichard 2004, 2005) and Life Construction Theory (Guichard 2013), and Relational Theory of Working (Blustein 2011). ISC represents a set of intrapreneurial resources to help people to face the complexity of the twenty-first century, favouring the prevention of failures through the promotion of strengths for personal success (Di Fabio 2014c). ISC (Di Fabio 2014c) can be defined in terms of a new core of characteristics that defines individuals as intrapreneurs in their lives, ready to address ongoing changes and transitions through the creation of innovative solutions to environmental constraints and able to transform these constraints into resources.

The ISC entails self-assessment in terms of: positive self-concept; hardiness in its three components of commitment as tenacity and perseverance in achieving one's own goals, control of events and the anticipation of possible problems, challenge when confronting with change; perception to be able to solve and face problems in a creative manner; resilience in terms of resistance to adversity in an adaptive way by transforming constraints into resources; perception to pursue the goal of developing one's own competences; perception to make decisions in the various spheres of one's own lives; and perception to proceed in a careful and adaptive way regarding decision-making plans (Di Fabio 2014c).

The ISC (Di Fabio 2014c, pp. 100–102) is “a higher order construct containing seven sub-constructs: (a) core self-evaluation as positive judgment of oneself in terms of self-esteem, self-efficacy, locus of control, and absence of pessimism (Judge et al. 2003); (b) hardiness as resistance with three dimensions: commitment, control, and challenge (Maddi 1990); (c) creative self-efficacy as one's perception of one's ability to solve problems creatively (Tierney and Farmer 2002); (d) resilience as the perceived ability to cope with adversity adaptively and to use adaptive strategies to deal with discomfort and adversity (Tugade and Fredrickson 2004); (e) goal mastery as the perceived ability to continuously develop one's own skills (Midgley et al. 2000); (f) decisiveness as the perceived ability to make timely decisions in any life context (Frost and Shows 1993); and (g) vigilance as the careful searching for relevant information (Mann et al. 1997)”. Combining the seven sub-constructs in a higher order construct is important in permitting the sub-constructs to be measured at the same time. The combining of these sub constructs is supported by empirical results confirming the validity and reliability of the ISC scale, and constitutes a procedure in line with the need for accountability (Whiston 1996, 2001).

As ISC is considered less stable than personality traits (Costa and McCrae 1985), specific training was developed to enhance ISC with promising results (Di Fabio 2014c; Di Fabio and Van Esbroeck 2016). ISC training can be conducted in two formats: a short version (five sessions of four hours each, weekly) and a long version (five sessions of eight hours each, weekly), which includes additional specific exercises for each component of ISC beyond that included in the shorter version (Di Fabio 2014c; Di Fabio and Van Esbroeck 2016). Regarding career outcomes, research has shown that ISC is associated with employability among both Italian students (Di Fabio 2014c) and Italian workers (Di Fabio and Bucci 2017). Empirical studies also showed relationships between Intrapreneurial Self-Capital and hedonic and eudaimonic well-being, after controlling for the effects of personality traits (Di Fabio et al. 2017) both in Italian students and in Italian workers (Di Fabio 2017d). Intrapreneurial Self-Capital also mediated the relationship between emotional stability and flourishing in Italian workers (Di Fabio and Gori 2016c).

Acceptance of Change

In the present-day ever-changing and unstable world of work, acceptance of change is crucial (Di Fabio and Gori 2016b). Traditionally, resistance to change (Oreg 2003) was the only construct studied. According to a positive perspective for organisations (Di Fabio 2017a), the new construct of acceptance of change (Di Fabio and Gori 2016b) was introduced, which regards the tendency to embrace change as a means for enhancing a person's well-being. Acceptance of change (AC) is specifically defined as "tendency to embrace rather than shy away from change." (Di Fabio and Gori 2016b, p. 2). AC thus stems from the belief that, in their work and other activities, people who are able to accept change often find that the change has a positive impact on their working lives and their resource levels" (Di Fabio and Gori 2016b, p. 2). AC incorporates five aspects: Predisposition to change, the ability people have to learn from change and to use change to increase the quality of their lives; Support for change, perceived social support obtained from others for dealing with challenges; Change seeking, tendency to seek change, to get and maintain information, and to express a need for new stimuli; Positive reaction to change, perception of positive emotions as reactions to change, considering change positively, and seeing advantages from it; Cognitive flexibility, mental ability to shift between different concepts or to adapt cognitive processing strategies (Di Fabio and Gori 2016b). Empirical studies showed that acceptance of change is related to positive outcomes, such as resilience both in Italian students (Di Fabio 2017f) and in Italian workers (Gori and Di Fabio 2015) and employability both in Italian students (Di Fabio 2017f) and in Italian workers (Di Fabio and Bucci 2017). Acceptance of change is also related to both hedonic and eudaimonic well-being, after controlling for the effects of personality traits both in Italian students and workers (Di Fabio 2017f).

Positive Relational Management

Positive Relational Management (PRM; Di Fabio 2016a) is an innovative construct taking into account the importance of positive and healthy relationships (Di Fabio 2017a). It includes the concepts of respect and caring for the self and others and the relationships between people (Blustein 2006, 2011; Di Fabio 2016b). This promising construct underlines the value of balancing of the self in relationships and reaching harmonic conditions, thereby going beyond the importance of relationships expressed in the more traditional concept of social support. Positive relational management highlights the importance of relationality, respect and caring towards oneself and others in relationships (Blustein 2006, 2011; Di Fabio 2016b) and

incorporates three dimensions: respect (my respect for others, the respect of others for me, my respect for myself), caring (my care for others, the care of others for me, my care for myself), and connectedness (my connectedness with family members, with friends, with significant others, and reciprocity).

Within a primary prevention perspective (Di Fabio and Kenny 2015; Hage et al. 2007; Kenny and Hage 2009), positive relationships are considered resources that should be developed across the life span (Di Fabio et al. 2016). The enhancement of psychological resources has great benefits for the promotion of well-being when developed prior to the emergence of difficulties (Di Fabio 2016a; Di Fabio and Kenny 2016b; Di Fabio et al. 2016). In line with this perspective, positive relational management (Di Fabio 2016b) might be enhanced as a preventive psychological resource essential for individual and organisational well-being. Positive relational management emerged in research as associated with positive outcomes such as resilience, career decision-making self-efficacy and employability both in Italian students and workers (Di Fabio 2017e). Empirical research showed that positive relational management is related to both hedonic and eudaimonic well-being, after controlling for the effects of personality traits both in Italian students (Di Fabio and Kenny 2017) and in Italian workers (Di Fabio 2017e).

Workplace Relational Civility

Workplace relational civility (WRC, Di Fabio and Gori 2016a) is a new construct entailing relational style in the workplace “characterized by respect and concern for oneself and others, interpersonal sensitivity, personal education, and kindness toward others. It includes civil behaviours such as treating others with dignity and respecting social norms to facilitate peaceful and productive cohabitation” (Di Fabio and Gori 2016a, p. 2). The workplace relational civility construct comprises the following dimensions: Relational decency (RD) at work: decency-based relationships, characterised by respect for the self and others, assertiveness, ability to express beliefs and opinion, and relational capacity; Relational culture (RCu) at work: politeness, kindness, good education, courteousness; Relational readiness (RR) at work: sensibility toward others (speed in understanding the feelings of others and exhibit proactive sensibility), ability to understand the emotions of others, concern for others, delicacy, attention to the responses of others, empathy, and compassion. It is important to underline that WRC can be evaluated with a new “mirror” form of measurement, the *Workplace Relational Civility Scale* (WRCS, Di Fabio and Gori 2016a). Participants are asked first to rate their relationship with others, and then to rate the relationship of others with them. This kind of measure permits a deep evaluation of interpersonal interactions, designed to reduce bias. It also allows the opportunity to assess discrepancies between how a person looks at himself/herself during the interaction with others and how a person considers others in their interaction with him/her. Thus, individuals are asked to reflect on their own behaviours and to analyse the responses of others, so making them more aware of

the relational dynamic (Di Fabio and Gori 2016a). This is fundamental for the productivity of group work for both the participants and for the management of the groups by the leaders. Relational civility has been associated with positive outcomes such as resilience, career decision-making self-efficacy and employability both in Italian university students (Di Fabio 2018) and workers (Di Fabio 2017e). Furthermore, in an empirical study carried out among Italian workers (Di Fabio et al. 2016), relationships emerged between workplace relational civility and both hedonic and eudaimonic well-being beyond the effects of personality traits. The relationships between academic relational civility and both hedonic and eudaimonic well-being, after controlling for the effects of personality traits, also emerged among Italian students (Di Fabio 2017d).

Psychology of Sustainability and Sustainable Development in the Career/Life Project for Positive Career Management

The psychology of sustainability (Di Fabio 2016c, 2017b) considers sustainability not only with respect to the ecological, social and economic environment (Brundtland Report 1987) but also in relation to the psychological environment with the goal of improving the quality of life for each individual and group. Also improving sustainable development. The traditional perspective on sustainable development (Brundtland Report, “Our Common Future” 1987; Harris 2003) was centered on the 3 “Es” of economy, equity, and ecology, underlining the importance to protect the rights of future generations to have natural resources in the same way as the current generations. This psychological perspective (Di Fabio 2017b) reflects on the etymology of the term sustainability: in a traditional framework, a product is sustainable if it uses progressively smaller quantities of materials including renewable and non-polluting processes and materials (Di Fabio 2016c, 2017b). From an innovative and positive psychological perspective, we can concentrate on the construction and management of a sustainable project that focuses not only on using increasingly smaller quantities of resources but also on regenerating resources (Di Fabio 2016c, 2017b). The innovation of the metacentric reflexivity perspective for sustainability is introduced (Di Fabio, 2016c 2017b; Di Fabio and Maree 2016). That is, the sustainability of a career/life project can be conceptualised across vertical and horizontal axes of reflexivity that includes micro- and macro-dimensions. The vertical axis first analyses the idea of “where I come from”, furthermore creates the aware richness of “where I am”, and continues to “where I will go”. The horizontal axis underlines the transition from an egocentric, self-centered position towards an altruistic, other-centered position to reach a new metacentric position centered on the raise of the reciprocal gain, specifically gain for others and gain for myself on one side, and connectedness based on reflexivity (from micro to macro level) on the other side. A reflective grid for the sustainability of the personal project (adapted by Blanché 1957) is developed for the construction of personal career and life project and

management (Di Fabio 2016c, 2017b) that allows reflection on these aspects: sustainability; no sustainability; crisis of sustainability.

In relation to the sustainability of a career/life project, meaningfulness constitutes a basic aspect (Di Fabio 2016c, 2017b). Life and professional projects are more sustainable if they are strongly embedded in a meaningful construction with coherence, direction, significance, and belonging (Di Fabio 2016c, 2017b; Schnell et al. 2013). The paradigm of meaning-making underlines the sustainability of the life project and is anchored to the construction of a life full of authentic meaning for individuals (Di Fabio 2016c; Di Fabio and Blustein 2016), further highlighting the importance of connections, meaning and purpose (Blustein 2011; Di Fabio 2016c; Di Fabio and Blustein 2016) for positive career development and career management.

Conclusions

The present chapter introduces a positive prevention perspective regarding career and life management (Di Fabio 2014a, 2016b) in the twenty-first century. The main career theories for the new twenty-first century scenario are: Career Construction Theory (Savickas 2005), Self-Construction (Guichard 2004, 2005) and Life Construction Theory (Guichard 2013), Psychology of Working (Blustein 2006) and Relational Theory of Working (Blustein 2011). These career theories offer the theoretical basis for stressing a positive psychology (Seligman 2002; Seligman and Csikszentmihalyi 2000) and a primary prevention perspective (Di Fabio and Kenny 2015; Di Fabio and Saklofske 2014b; Hage et al. 2007; Kenny and Hage 2009). They also lead to new axes of reference, such as Purposeful Identitarian Awareness (Di Fabio 2014d) with a focus that goes from reflexivity to self-attunement and the Positive Self & Relational Management (PS&RM) model (Di Fabio and Kenny 2016a), in order to positively meet the demanding challenges of the twenty-first century. Positive resources are precious, and they have to be increased through early specific training to prevent negative consequences in career and life management and to promote positive outcomes. Positive outcomes traditionally studied in the twenty-first century are resilience, career decision-making self-efficacy and employability. Other important outcomes to consider are linked to the perspective of well-being. Among preventive resources currently available we stressed the role of intrapreneurial self-capital (Di Fabio 2014c), acceptance of change (Di Fabio and Gori 2016b), positive relational management (Di Fabio 2016a), and workplace relational civility (Di Fabio and Gori 2016a) for their strong positioning in relation to the principal theories for the twenty-first century (Career Construction Theory, Savickas 2005; Self-Construction, Guichard 2004, 2005, and Life Construction Theory, Guichard 2013; Psychology of Working, Blustein 2006, and Relational Theory of Working, Blustein 2011) and to the primary prevention perspective (Di Fabio 2014a; Hage et al. 2007; Kenny and Hage 2009).

This positive prevention perspective (Di Fabio 2014a, 2016b) for career and life management underlines thus that it is essential to develop individual resources and strengths early in the life span permitting individuals to adaptively face the challenges of the twenty-first century. It challenges the more stable perspective of linear career development in favor of the more flexible perspective of career and life management, characterised by a fluid scenario whereby individuals design and construct their own personal and professional paths, progressing chapter after chapter, maintaining responsibility in their career and life construction in a world of work constantly under construction (Di Fabio, 2014d).

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Chapter 11

Career Success: Employability and the Quality of Work Experiences



Annelies E. M. van Vianen, Irene E. de Pater, and Paul T. Y. Preenen

Abstract The changing labour market and unpredictability of careers necessitate employees to adopt non-traditional norms of career success and assess their career in terms of employability. We propose that employees could promote their employability specifically through engagement in challenging work experiences. High quality jobs provide employees with these experiences, which stimulate learning and adaptability, affect employees' interests, work attitudes, and competency perceptions, and increase their organisational power and promotability. Whether employees encounter challenge in their job may depend on their own initiatives. Research has shown that intrinsically motivated individuals who are mastery-oriented, and who are self-efficacious and proactive are more likely to involve in challenging tasks than their extrinsically motivated, performance-oriented, low efficacious, and passive counterparts. However, the challenging nature of jobs also depends on factors in the work environment such as the task allocating behaviours of colleagues and supervisors. We conclude that supervisors in particular could promote the challenging experiences, employability, and career success of employees by inducing a learning orientation in employees, delegating tasks, and monitoring the division of challenging tasks among team members. In addition, organisations could foster the making of developmental i-deals with employees and design jobs that are both challenging and attainable.

Keywords Career success · Employability · Job challenge · Skill development · Adaptability

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Globalisation and competition compel organisations to regularly adjust their systems, structure, and technology, which impact the careers of employees. Careers no longer progress along a fixed path but instead tend to involve a sequence of relatively short periods in which employees' work activities and roles are stable yet doomed to become obsolete. These periods may or may not connect to each other, both in terms of individual employment and work experiences (Savickas et al. 2009).

This change in conceptualization of careers may not keep pace with the way in which employees envision their career. It is possible that some employees may still reflect on their career with a focus on security, predictability, and a linear perception of a successful career. These employees may adhere to the traditional definition of objective career success, that is, tangible and quantifiable career outcomes such as salary growth and promotion (e.g., Heslin 2005). However, only few people are actually able to advance upwardly in their career (Dries 2011). Alternatively, given the prevalent unpredictability of careers, employees could adopt other norms of career success and assess their careers in terms of personal development, need fulfilment, and the achievement of goals that are personally meaningful. Also, employees could rely on their own personal standards and goals (self-referent subjective success) rather than comparing themselves to a reference group or external standard (other-referent subjective success) (Van Vianen and Klehe 2014).

In the past 15 years, researchers have started to frame career success in terms of employability (e.g., De Vos et al. 2011). Employability has been conceptualised as "the ability to obtain a job and to keep employed, within or outside one's current organisation, for one's present or new customer(s), and with regard to future prospects" (Van der Heijden et al. 2009, p. 156) and as "a form of work specific active adaptation that enables workers to identify and realise career opportunities" (Fugate et al. 2004, p. 16). Individuals who are able to remain employable (gain and retain employment through the optimal use of their competencies) and to adapt to and foresee career transitions will experience more career success than those who lack these abilities.

According to Fugate et al. (2004), employability consists of four interrelated dimensions: career adaptability, human capital, social capital, and career identity. *Career adaptability* is the readiness to cope with current and anticipated tasks, transitions, and traumas in occupational roles and a willingness to explore one's career possibilities (Savickas and Porfeli 2012). Adaptability encompasses four resources: concern (the extent to which individuals look ahead and prepare for what might come next), control (responsibility for shaping the self and the environment through self-discipline, effort, and persistence), curiosity (the exploration of possible selves and alternative scenarios, and reflection on various situations and roles), and confidence (in the ability to actualize one's choices). *Human capital* concerns the experience, training, skills and knowledge that are necessary for finding and keeping a job. *Social capital* refers to individuals' social skills and social network and support that they can draw upon. *Career identity* concerns individuals' work values and motivation to work and the centrality that they place on employment.

Altogether, the literature on employability emphasises that for being successful in one's career, individuals should look ahead, seek for opportunities to further develop their (range of) skills, explore different activities and roles, build confidence, engage in learning, and build a network of supportive relationships, all of which should accord with an individual's own values and goals.

In this chapter we focus on the human capital part of employability, that is, the training and skill development that are necessary for keeping pace with the changes at work and are crucial for career success. There are several ways in which individuals may develop themselves. For example, employees may engage in job-related training in order to strengthen their abilities and skills, or they may obtain higher levels of proficiency by enlarging their experiences within a certain work domain. All these activities help to increase individuals' human capital. However, in this paper we argue that skill development through job-related training will be insufficient to remain employable. Instead, we propose that employees could promote their employability and career success through engagement in challenging activities on the job. Specifically, we propose that engaging in challenging activities will promote learning and development, which help to build human capital, which, in turn, will enhance career success.

In the next paragraph we first address the question of what makes a career successful. Thereafter, we focus on the human capital part of employability and discuss ways in which individuals' human capital can grow. The best way to increase employability and career success is to engage in challenging work experiences because these types of experiences stimulate learning, development and may lead to career adaptability. Optimally, employees themselves should initiate their challenging work experiences. It is, however, more realistic to assume that employees will often need the support and encouragement of their environment. At the end of this chapter, we discuss the role that individuals and organisations have in enhancing employees' employability and career success.

Career Success

Career success has been defined as the accumulated positive work and psychological outcomes resulting from one's work experiences (Seibert and Kraimer 2001). This definition includes two different perspectives on careers, an objective and a subjective perspective. The objective perspective on career success takes the tangible facets of careers into account, such as individuals' income and occupational status. The subjective perspective on career success focuses on how individuals evaluate their career and defines career success in terms of career satisfaction (Ng et al. 2005).

The subjective perspective on career success has received great attention from career researchers as subjective career success is only modestly related to objective career outcomes (salary change, mobility, promotion) while it has a strong impact on people's general life satisfaction and well-being (Erdogan et al. 2012; Lounsbury

et al. 2004; Stumpf and Tymon 2012). Therefore, it is important to know what people mean when they report their career to be successful or not. Do they use objective career success criteria or do they assess career outcomes, for example, on the basis of personal development and growth and the fulfilment of personal needs?

Researchers have measured subjective career success (career satisfaction) in different ways. Some researchers (Nauta et al. 2009) have used a one-item measure (“I am satisfied with my career”) whereas others use a measure including items that reflect satisfaction with an individual’s career status, present job, and progress toward promotion (e.g., Martins et al. 2002) or a measure covering success with one’s career and satisfaction with the progress one has made towards meeting overall career goals, and goals for income, advancement, and the development of new skills. The latter measure, the *Career Satisfaction Scale* developed by Greenhaus and colleagues (Greenhaus et al. 1990), has been used most frequently and has been considered as “the best measure available in the literature” (Judge et al. 1995, p. 497) because it is a broad one-dimensional construct of subjective career success. However, one could wonder whether individuals with different demographic backgrounds (e.g., gender, education, age) conceptualize career success in the way researchers do. When asked directly about their career success would individuals mention factors such as income, status, advancement, and development?

Some studies (Dyke and Murphy 2006; Hofmans et al. 2008) have addressed the possibility that different employees may conceptualize career success in different ways. For example, Dyke and Murphy (2006) explored whether men and women with comparable career attainments would differ in their definition of career success. They found that men defined career success relatively more in terms of material success whereas women more often than men highlighted the importance of relationships and balance between their work and non-work domains. Building on this and related research, Dries et al. (2008) interviewed managers about their careers and asked them to reflect on their career success. The themes that emerged from these interviews were rated by experts, which resulted in a 2 (interpersonal vs. intra-personal) × 2 (achievement vs. affect) dimensional framework of career success (see Table 11.1). Individuals seem to use external and internal sources for establishing their career success and they seem to define success in terms of

Table 11.1 Dimensional framework of career success^a

	Inter-personal	Intra-personal
	<i>External world is source of validation</i>	<i>The “self” is source of validation</i>
Achievement	Performance	Self-development
<i>Factual accomplishments</i>	Advancement	Creativity
	Factual contribution	
Affect	Recognition	Security (financial and employment needs)
	Cooperation	
	<i>Feelings and perceptions</i>	Perceived contribution

^aDerived from Dries et al. (2008)

accomplishments and feelings. However, research on career satisfaction has been mostly focused on the inter-personal and less so on the intra-personal indicators of career success (Dries et al. 2008). Notably, individuals seem to use the self as a source when reflecting on criteria such as self-development and the fulfilment of employment needs, which are core to the construct of employability.

In current careers, individuals will be better off when they learn to set their own career goals and standards rather than those of others, because a comparison with others in order to establish one's "objective" career success will be difficult and may lead to frustration because only few people are promoted to higher hierarchical levels (Heslin 2005) or have the opportunity to attain higher incomes (Abele et al. 2011). Moreover, an intra-personal rather than inter-personal orientation, including a focus on self-development and fulfilment of employment needs, may foster employability as this orientation may help to expand one's human capital.

Human Capital

Human capital refers to people's personal, educational, and professional experiences that support their career attainment (Becker 1975). Human capital is expected to contribute to people's value in the market place and researchers, therefore, have related human capital factors to traditional measures of objective career success, such as salary and promotion. Although education and work experiences do relate to these measures of career success, the relationships are modest and inconsistent (e.g., Ng et al. 2005). Other scholars investigated whether human capital is a predictor of (perceived) employability and found a rather weak relationship between formal education and perceived employability, particularly during times of a recession (Berntson et al. 2006), or no relationship between duration of formal training and perceived employability (Wittekind et al. 2010). These findings indicate that human capital in terms of the quantity of capital (e.g., length of education and formal training) has only a marginal influence on individuals' employability and career success.

The reason for the minor contribution of quantitative human capital factors is that individuals with equal amounts of work experience, education, and formal training can differ considerably with respect to the quality of their experiences and learning (De Pater et al. 2009a). Individuals develop their own specialities in their jobs due to their task choices based on specific task preferences and/or because of the assignments they get from their supervisor. The quality of work experiences refers to the richness, variety and breadth of tasks and responsibilities people encounter in their work (Tesluk and Jacobs 1998). The core element of these work experiences is that they challenge employees to explore their capacities and to acquire new skills.

Researchers (e.g., De Pater et al. 2009a; Dong et al. 2014, Preenen et al. 2016; Seibert et al. 2017) have begun to address the role of the *quality* of work experiences for individuals' careers. Their research indicates that challenging work experiences

are not only beneficial for the development of managers but for the development and employability of *all* working individuals.

The Quality of Work: Challenging Experiences

High quality jobs provide employees with challenging experiences that create good opportunities for learning and development and encourage employees to explore and broaden their knowledge, skills, and abilities (McCauley et al. 1999; McCauley et al. 1994). Challenging work experiences are thought of as “the driving force of learning” on the job (McCall et al. 1988, p. 16) and engagement in challenging experiences fosters employees’ career attainment (De Pater et al. 2009a; Seibert et al. 2017).

The Oxford English Dictionary (1989) refers to challenge as “a difficult or demanding task, especially one seen as a test of one’s abilities or character”. The American Heritage Dictionary of the English Language (2004) speaks of “a test of one’s abilities or resources in a demanding but stimulating undertaking”. Hence, people are challenged if they are faced with a task or activity that is novel, demanding, and stimulating and calls on their ability and determination. Tesluk and Jacobs (1998) mentioned another aspect of challenging experiences that may affect learning and development, that is, their density. Challenging experiences display greater density if employees repeatedly engage in them. It is assumed that frequent engagement in challenging situations stimulates work motivation (Zimmerman et al. 2012), increases employees’ self-efficacy (Aryee and Chu 2012; Seibert et al. 2017), and will affect their interest in and preferences for engagement in future learning experiences (Krumboltz 1979; Mitchell and Krumboltz 1990).

The role of challenging experiences has been mainly recognised in the context of management development (e.g., Dragoni et al. 2009, McCauley et al. 1994). In that context, McCauley et al. (1999) identified clusters of job components that represent challenging aspects of work: (a) job transitions, with individuals being confronted with new tasks and situations in which existing tactics and routines are inadequate, (b) creating change, with individuals having a clear goal to change a situation, but a loosely defined role that gives them the freedom to determine how to accomplish the goal, (c) managing at high levels of responsibility, characterised by increased visibility, the opportunity to make a significant impact, dealing with broader and more complex problems and higher stakes, (d) managing boundaries, in which case employees have to work with people over whom they have no direct authority and have to develop strategies for influencing them and gaining their cooperation, and (e) dealing with diversity, when working with people who are different from themselves regarding their values, backgrounds, experiences, and needs. Hence, a task or activity can be qualified as being challenging to the extent that it (a) is novel and asks for non-routine skills and behaviours, (b) tests one’s abilities or resources, (c) gives an individual the freedom to determine how to accomplish the task or activity, and (d) involves a higher level of responsibility and visibility. Although most

research on the consequences of job challenge has focused on managerial jobs, research has indicated that its ingredients are applicable to non-managerial jobs as well (De Pater et al. 2010; Preenen et al. 2015).

The extent to which individuals have challenging experiences during their pre-occupational years and early careers promotes their future career development and success. Watson (2001), for example, showed that pre-occupational experiences in social and educational settings, such as activities at school, in sports, and as a club member, affect later careers progress. Studies by Berlew and Hall (1966) and Bray et al. (1974) showed that employees who engaged in challenging job assignments early in their careers were –compared to those who engaged in less challenging assignments– more successful after several years in their careers.

Several reasons have been proposed for why challenging experiences are important for career development. First, challenging experiences provide *opportunities for learning* a wide range of skills, abilities, and insights that enable people to function effectively and motivates them to do so (McCall et al. 1988; McCauley et al. 1994). Secondly, they affect people's *interests, job attitudes*, and their *competency perceptions*. People's early experiences direct their activity preferences in future jobs and their choices for specific jobs or training (Mitchell and Krumboltz 1990), and thus affect and endorse career relevant behaviours. Also, employees who have to meet high performance expectations in the first years of their career are likely to internalise high work standards, which facilitate performance and success in their later years (Berlew and Hall 1966). Moreover, challenging job experiences increase one's self-efficacy (Aryee and Chu 2012; Seibert et al. 2017) and the willingness to “launch out into the unknown again” (Davies and Easterby-Smith 1984, p. 176). That is, it is likely that successful performance of a challenging task will increase people's self-efficacy beliefs regarding the accomplishment of other challenging tasks, which in turn may encourage them to seek out additional challenging experiences (Maurer and Tarulli 1994) and boost their ambition for other challenging jobs (Van Vianen 1999).

The third reason why challenging assignments are thought to be important for career development is related to opportunities to increase one's *organisational power*, such as visibility to others and the building of effective interpersonal networks within and outside the organisation. Both visibility and networking are considered important for career advancement (Hurley and Sonnenfeld 1998). Finally, challenging experiences serve as a *cue for individuals' promotability*. Information with regard to the type of tasks employees perform is used as a cue to determine employees' abilities and career potential (e.g., De Pater et al. 2009a; Seibert et al. 2017), which are important determinants of promotion decisions.

Employees differ in the extent to which they experience challenge in their job. The next paragraphs address possible reasons for these differences. Are challenging experiences the result of personal or organisational initiatives?

Challenging Experiences: Self-Initiated

Whether employees encounter challenge in their job may depend on their personal initiatives. As noted above, two people that occupy a similar job often differ in the specific activities they employ in their job. Take two persons who both occupy a position as math teacher at the same school at a similar job level. One of them spends most of the working hours on developing new teaching programs whereas the other is mainly concerned with coaching students. What both teachers have in common is that for years they have specialized in their specific tasks. In their school, they are acknowledged as the “developer” and “the coach”, respectively. However, both teachers may feel that their job no longer challenges them. The first teacher may take the initiative to withdraw from the current tasks and to explore other, more challenging, ones. The second teacher may continue with working on the same tasks as before. Whether people initiate challenging experiences may depend on personal motives, self-efficacy, proactive personality, or a combination of these personal factors.

Motives

Employees’ motives drive their work behaviours. In this section we address important motivational concepts that seem relevant for employee engagement in challenging tasks: intrinsic and extrinsic motivation, mastery and performance orientations, approach and avoidance motives, and achievement goal orientations.

Intrinsic and Extrinsic Motivation It has been proposed that challenge is an important aspect of intrinsic motivation and that intrinsically motivated individuals strive to select work assignments that allow them to develop new skills and to be autonomous (Amabile et al. 1994). This is in line with extant theory and research that describes intrinsic motivation as including self-determination (i.e., preference for choice and autonomy; Deci and Ryan 1985), competence (i.e., mastery orientation and preference for challenge; Deci and Ryan 1985), task involvement (Csikszentmihalyi 1975), and curiosity and interest (Reeve et al. 1986). The extent to which people are intrinsically or extrinsically motivated has generally been conceived of as a stable trait. Amabile et al. (1994), for example, demonstrated that people’s motivations remained stable for longer periods and across major life transitions. This finding may suggest that people who are intrinsically motivated will initiate tasks and assignments that are challenging, whereas extrinsically motivated people will be less focused on performing these types of tasks. In a study on job flexibility of career starters (Peiró et al. 2002), it was indeed found that adolescents who rated high on intrinsic work values showed less resistance to accept a challenging job than those who rated low on intrinsic work values.

Mastery and Performance Orientations Literatures on learning and development in educational and work settings have emphasised the role of people's goal orientations in relation to preferences for and acceptance of challenging tasks and assignments. Goal orientation theory (Dweck 1986) conceptualises the broader goals that people adopt and pursue in achievement situations as a personality dimension and distinguishes mastery and performance orientations. Mastery-oriented individuals focus on the development of competence through mastering challenging tasks and activities, whereas performance-oriented individuals focus on demonstrating and validating their competence and avoiding failure (e.g., Elliot 1999; VandeWalle et al. 2001). Hence, people with a mastery orientation will be more likely to pursue challenging tasks because they aim to learn and master new skills. In contrast, people with a performance orientation may be less likely to engage in challenging tasks because they tend to minimise the risk of being viewed as incompetent by others. Instead, they may be more likely to engage in less challenging tasks that they know they can perform well, so that they can show their superior performance on these tasks to others. Only sparse research focused on the relationship between people's goal orientation and (consequences of) job challenge, and most of these studies only included learning orientations. For instance, a study by Dragoni et al. (2009) showed that early-career managers with stronger learning orientations were indeed more likely to engage in challenging assignments than those with weaker learning orientations. These authors also hypothesised that people who hold a strong learning goal orientation would learn more from engaging in challenging work experiences than those holding a weaker learning goal orientation, because they respond to challenging situations more constructively. The results of their study indeed showed that the relationship between engagement in challenging assignments and managerial competencies was stronger for managers with strong learning orientations than for those with weaker learning orientations.

Approach and Avoidance Motives Other researchers have emphasised the approach – avoidance dichotomy as a framework for understanding people's motivation in achievement contexts. These researchers assume that when people are in an achievement situation, they expect to be compared with some standard of excellence and will either be inclined to demonstrate high ability (approach motives) or to avoid demonstrating low ability (avoidance motives) (e.g., Cooper 1983). Approach motives reflect people's aims to achieve challenging performance standards (Hirschfeld et al. 2006) and their inclination to attain success (Elliot 1999). Avoidance motives reflect people's desire to avoid failure and to prevent negative evaluations of one's competence (Hirschfeld et al. 2006) and the tendency to disengage from achievement situations (Elliot 1999). Based on these theoretical notions, De Pater et al. (2009b) proposed that people who have strong approach motives would be more willing to engage in challenging tasks than those with weaker approach motives and that people who have strong avoidance motives will be less likely to engage in challenging tasks than those who have weaker avoidance motives. They tested these assumptions in a study among university students. In this study, students participated in an assessment centre. They were told that their management

potential would be established based on their task performance and they were encouraged to show their capacities as best as they could. The assessment centre consisted of ten tasks: three challenging tasks and seven non-challenging tasks (a pre-test among another student sample confirmed that the challenging tasks were indeed more challenging than the non-challenging tasks). During the assessment centre, participants could freely choose three of the ten tasks they wanted to perform. Although all of them realised that the challenging tasks were most informative for establishing their management potential (as measured after the assessment centre), students differed considerably in the number of challenging tasks they chose to perform. The most important predictors of the number of challenging tasks students chose to perform were their approach and avoidance motives. Students' approach motives related positively and their avoidance motives related negatively to choosing challenging tasks.

Achievement Goal Orientations Elliot (1999) combined the mastery orientation – performance orientation dichotomy and the approach motives – avoidance motives dichotomy into a 2×2 achievement goal model comprising of four motivational orientations. People with a performance-approach goal orientation are motivated to gain favourable judgements from others by demonstrating superior performance and abilities relative to others. People with a performance-avoidance orientation aim to prevent receiving negative judgements from others by avoiding demonstrating incompetence as compared to others. People with a mastery-approach orientation focus on the development of competence through mastering challenging tasks and activities, whereas those with a mastery-avoidance orientation aim to avoid skill deterioration, the loss of skill, or leaving tasks unmastered.

Because people's goal orientations affect the difficulty of the goals they set for themselves (e.g., Jagacinski et al. 2008), it is likely that they affect people's choices for performing challenging tasks. A study by Preenen et al. (2014b) showed that especially employees with a strong mastery approach goal orientation engaged in challenging tasks. Mastery avoidance, performance approach, and performance avoidance goal orientations did not affect the extent to which they engaged in challenging work.

Self-Efficacy

Pursuing challenging tasks may also depend on individuals' self-efficacy regarding these types of tasks. Self-efficacy refers to the confidence that a person has regarding his or her capabilities to successfully perform a specific task within a specific context (Bandura 1986). Challenging tasks may cover a broad range of tasks that are beyond individuals' usual tasks. Here individuals may need role breadth rather than task-specific self-efficacy. That is, they need confidence in their ability to carry out a broader set of tasks and roles that are beyond their job description (Parker 1998,

p. 835). Similar to task specific self-efficacy, people's role breadth self-efficacy is not necessarily fixed but can be modified through frequent exposure to challenging tasks and enactive mastery (repeated performance success), vicarious experience (modelling), verbal persuasion, and physiological states and reactions (Bandura 1986).

Individuals need to have enough opportunities for enactive mastery by means of performing varied and challenging tasks that will, in turn, increase their competence beliefs. Moreover, "having a sustained opportunity to adapt to high demands can promote the development of resources to aid in self-regulation" (Parker 2014, p. 675). Observing similar others succeed or fail at a particular activity (vicarious experience) may also affect one's competence beliefs, especially if one has had little direct experience upon which to estimate personal competence. People's role-breadth self-efficacy may be enhanced if they see others effectively dealing with broader and more challenging tasks.

Social support through verbal persuasion may also strengthen employees' beliefs in their competence to perform challenging tasks, especially when this support is provided by their supervisor (e.g., Parker 1998). According to Bandura (1986), social persuasion can contribute to self-efficacy, but social persuasion alone may be limited in its power. Finally, individuals' physiological state when performing a task may also affect their confidence in performing these tasks. Engagement in challenging tasks often evokes higher levels of arousal and physiological reactions (e.g., Tomaka et al. 1997) and performing challenging tasks may create both positive and negative feelings (Dong et al. 2014). Individuals may, for example, value the opportunity to learn and grow, and may find the novel tasks interesting, which will elicit feelings of excitement, enthusiasm, and enjoyment. However, they may also perceive their challenging task as risky and enhancing the possibility of performance failure, which will elicit feelings of anxiety and fear.

Because negative feelings during the performance of challenging tasks undermine an individual's confidence, Dong et al. (2014) examined whether personal characteristics could buffer the negative feelings. They reasoned that individuals high on emotional intelligence (i.e., a high ability to identify emotions, to understand the relationships among emotions, to use emotions to direct cognitions, and to regulate one's emotions and those of others; Goleman 1995) will be more aware of unpleasant feelings that stem from challenging experiences and will be better able to anticipate unpleasant feelings and to cope with them (such as reappraising the challenging experiences) than individuals low on emotional intelligence. Although this proposition was not supported, the results of this study showed that emotional intelligence did reduce the negative cognitions (turnover intentions) associated with unpleasant feelings. Apparently, individuals high on emotional intelligence accept that stressful feelings are a natural part of challenging experiences whereas individuals low on emotional intelligence perceive them as a reason to quit their job.

Given that emotional intelligence is a relatively stable personality trait, it may be difficult to improve people's ability to actively buffer their negative feelings to protect or enhance self-efficacy while performing challenging tasks. An alternative and maybe even more effective approach may be to enhance people's *positive* feelings

to enhance self-esteem while they perform challenging tasks. It is likely that people who have positive experiences while working on challenging assignments are more likely to pursue further challenging tasks in the future. Positive feelings to work tasks can be induced by adopting the right types of goals in achievement situations (Dweck 1986).

In this light, Preenen et al. (2014a) examined the impact of individuals' goal orientations on their positive and negative activating mood while working on a high or low-challenging assignment. Participants in this study were randomly assigned to perform either a challenging or a non-challenging task and were randomly given instructions that elicit a mastery-approach or a performance-approach orientation. Although goal orientations have often been conceptualized as a relatively stable individual difference variable, they can be (temporarily) influenced (e.g., Barron and Harackiewicz 2001). It was found that conducting a challenging assignment with an induced focus on learning elicited a higher positive activating mood than performing a challenging assignment with an induced focus on outperforming others, or no induced goal orientation. No effects were found for negative activating mood. These findings suggest that high-challenging assignments are best introduced with an instruction that focuses an employee on learning. A learning orientation enhances positive feelings during task performance, which promote employees' self-efficacy and future engagement in challenging tasks.

Proactive Personality

Unlike role breadth self-efficacy, which changes over time due to – among others – the changing job experiences people engage in (Parker 1998), proactive personality is conceptualized as a relatively stable personal disposition “to take personal initiative in a broad range of activities and situations” (Seibert et al. 2001, p. 847). A proactive individual can be described as “one who is relatively unconstrained by situational forces, and who effects environmental change” (Bateman and Crant 1993, p. 105) through engagement in proactive behaviours. As opposed to their less proactive counterparts, who are more likely to “adapt to and endure current circumstances” (Fuller and Marler 2009, p. 330), proactive individuals tend to take initiative to improve their current situation or to create new situations that are beneficial to them (Crant 2000).

At work, proactive individuals feel responsible for initiating constructive change (Fuller et al. 2006) and tend to make changes to their work situation in order to improve their opportunities for personal success (Li et al. 2010). Empirical research has underlined the importance of proactive personality in the work domain and meta-analytic studies have shown that it positively relates to favourable job attitudes, work behaviours, and career success (Fuller and Marler 2009; Ng et al. 2005; Spitzmuller et al. 2015; Thomas et al. 2010; Tornau and Frese 2013).

It is likely that proactive employees, who “select, create, and influence situations in which they work” (Seibert et al. 1999, p. 417) choose to engage in more

challenging tasks and activities than their less proactive colleagues, because engagement in challenging tasks will improve their chances on promotion and success.

From an individual perspective, research has indicated that proactive employees are more likely to initiate and engage in career management activities and are more likely to identify, explore, and pursue opportunities for self-improvement and skill development (Jiang 2017; Seibert et al. 2001). Moreover, they have a learning goal orientation, take more initiative to further their career, and tend to see challenging work situations as an opportunity rather than as a threat (Fuller and Marler 2009). From a relational perspective, proactive employees have been found to develop better relationships with their supervisor (leader-member exchange relationships; Fuller and Marler 2009) and to be more likely to engage in networking (Thompson 2005), which increases their opportunities to identify opportunities to engage in challenging tasks and activities. At the same time, proactive employees engage in more voice behaviours (Tornau and Frese 2013), which may involve requests to receive more challenging work from those around them. De Pater et al. (2009b) examined the early work experiences of bachelor students during their internship at different companies in The Netherlands and found that interns' proactivity ratings as measured with the *Proactive Personality Scale* (see Seibert et al. 1999) were indeed positively related to having challenging experiences. Proactive interns reported to have more of these experiences during their internship.

Proactive personality may not only affect the *extent* to which employees engage in challenging tasks and activities, but may also affect *how* they deal with the challenges they encounter, which may, in turn, affect the outcomes or consequences of performing challenging tasks. First, proactive individuals tend to be more motivated and energetic than individuals low on proactive personality (Truxillo et al. 2012) and will persist until they reach their objectives (Crant 2000). Moreover, as they have broader networks (Thompson 2005) and better social exchange relationships with others in their organization (Li et al. 2010), it is likely that they have more social support and access to information (Jiang 2017) that may help them in completing their challenging tasks and activities. Successful completion of challenging work may, in turn, boost their role breath self-efficacy and their interest in pursuing challenging tasks.

Altogether, research has shown that intrinsically motivated individuals who have a mastery-approach orientation, and who are self-efficacious and pro-active are more likely to be involved in challenging tasks than individuals who are extrinsically motivated, performance-oriented, low on self-efficacy, and less pro-active. Moreover, several studies have evidenced that individuals' motivation, goal-orientation, self-efficacy, and pro-active personality are interrelated. Of course, people's specific work experiences are not only determined by their own motives and personality, but also by factors in the work environment. Organisational practices and supervisor behaviours may largely determine employees' exposure to challenging job experiences.

Challenging Experiences: Assigned

In many work settings, individuals are not entirely free to choose which activities to engage in, and, thus, what experiences they have. Moreover, as assignments at work are often organised in groups, tasks are allocated among group members. Whether or not individuals have challenging experiences will, to a certain extent, depend on the behaviours of peers and supervisors. Thus, despite the important role of individuals' own characteristics in pursuing specific activities as mentioned above, their role breadth self-efficacy and opportunities for its enhancement are at least partly affected by the behaviours of others.

The role that peers may play in task choice decisions has been demonstrated in a study that examined the division of tasks among men and women (De Pater et al. 2009c). In this unique laboratory study, the researchers created an achievement situation in which challenging tasks were scarce (as they often are). The researchers first asked male and female students to choose three (out of six) tasks they would want to perform in an assessment centre advertised to investigate their management potential. Three of the tasks were challenging, the other three tasks were non-challenging. There were no gender differences in task choice; that is, male and female students chose to perform a similar amount of challenging and non-challenging tasks. Thereafter, researchers created mixed-gender dyads with males and females having similar task choices and students (in dyads) participated in the assessment centre. Each dyad was asked to perform six tasks (the three challenging tasks and three non-challenging tasks they earlier had chosen from) and they were informed that both members of a dyad were not allowed to perform the same tasks. Therefore, they were asked to allocate the tasks among each other (each student was asked to perform three of the six tasks) before starting to work on the tasks. The results of this study showed that male and female participants did not differ in the total number of initially chosen tasks they maintained during the task allocation. However, they did differ in the number of *challenging* tasks maintained after the task allocation. From the original set of challenging and non-challenging tasks they had chosen, males stuck to their initially chosen challenging tasks during task allocation whereas female participants more often held their initially chosen non-challenging tasks. Thus, after task allocation, females had *fewer* challenging tasks than males had, although they had similar preferences for these types of tasks. Female participants may have shifted their task preferences in the direction of more non-challenging tasks under the influence of gender stereotypes; that is, the belief that responsibility for challenging tasks is more appropriate for men than for women.

Recent research from Babcock et al. (2017), including a series of field and experimental studies, supports the contention that women, more than men, are inclined to perform the less advantageous tasks (i.e., tasks that lower their chance on promotion). Furthermore, they found that this outcome was not caused by sex differences in task preferences, but was associated with the sex composition of the group and the prevailing belief that women are more likely than men to perform these tasks. That is, individuals in mixed-sex groups expect that women will respond more

favourably to requests to undertake less advantageous tasks than do men and, indeed, this study found that women responded as expected. Hence, women are more likely than men to be invited to perform less advantageous tasks and to accept these invitations in mixed-sex groups.

These studies clearly show that employees' opportunities for performing challenging tasks depend on the specific characteristics of the group and the process of task allocation among them. If employees stay in their work group for a substantial amount of time, "standardised" processes of task allocation may easily arise with some group members being repeatedly deprived from challenging experiences whereas few others become showered with these experiences.

Supervisors, even more so than peers, influence the types of task experiences of their employees. For instance, through delegation of some of their tasks to subordinates they may stimulate the development of subordinates' skills, knowledge, and even careers (Vinton 1987; Yukl and Fu 1999). Delegation may concern both challenging and routine tasks, but most supervisors will be particularly careful in delegating challenging tasks. Delegating challenging assignments to subordinates involves a certain risk for the supervisor (Van de Vliert and Smith 2004). They will try to reduce that risk by delegating assignments exclusively to those subordinates they trust to be both willing (Hersey and Blanchard 1993) and able (e.g., Leana 1986) to perform well. Bauer and Green (1996) indeed found that supervisors' delegation behaviours were positively related to the job performance ratings of their subordinates. Also, other factors may play a role in supervisors' delegation behaviours, such as supervisors' impression of subordinates' ambition. Ambitious subordinates may impress their supervisor as being eager to perform challenging assignments in order to improve their promotability. At least the risk of task failure due to subordinates' lower effort might be reduced if the subordinate is ambitious. Moreover, research has shown that supervisors evaluate the contextual performance of ambitious subordinates higher than those of non-ambitious ones (Hogan et al. 1998).

Some studies investigated whether and how supervisors assign challenging tasks to subordinates. For example, De Pater et al. (2010) examined possible gender differences in challenging job experiences and whether these differences could be due to supervisors' task assignment behaviours. They found that female employees had fewer challenging experiences in their jobs than male employees, irrespective of their ambition. Furthermore, they showed that supervisors' task allocation decisions were not gender-blind as supervisors were inclined to assign challenging tasks to their male rather than female subordinates, regardless of subordinates' ambition and job performance.

Whether supervisors are inclined to allocate challenging tasks to subordinates seems to depend on supervisors' achievement motivation and supervisory task authority (i.e., the extent to which supervisors decide on the types of tasks that their employees perform; Preenen et al. 2014b). Supervisors who decide on employees' work and allocate tasks to them, tend to allocate non-challenging rather than challenging tasks. This seems especially true for supervisors who have a strong performance-approach orientation. These supervisors have a high need for

achievement and wish to excel and may therefore prefer to retain important tasks rather than allocate them to their employees. These findings show that employees who would want to undertake challenging activities may be hampered by the task allocation behaviours of their supervisor.

Supervisors may not realise the far-reaching consequences of their daily task allocation behaviours for the careers of their employees. This awareness can be raised by regular employee-supervisor job conversations in which both parties are encouraged to explore options for employee development. Employee-supervisor job conversations tend to be held in the form of performance appraisal interviews that are focused on employees' performance, progress, aims, and needs at work (Linna et al. 2012). Although these interviews also aim to facilitate the formation of personal development plans, relatively few interviews seem to include development-oriented topics (Linna et al. 2012). A study from Dalhoeven et al. (2014), for example, showed that employees' development opportunities were less often discussed in job conversations with older as compared to younger employees. Consequently, older employees reported less developmental support from their supervisor, which in turn was related to their lower interest in development and learning. These findings were confirmed in a follow-up longitudinal study among employees from a governmental organisation (Dalhoeven et al. 2016). This study showed that developmental support from the supervisor promoted discussing topics related to learning and development during the annual job conversation, which fostered employee training and development willingness. In addition, it was found that employees who underwent a change in their work experienced more learning and were subsequently more willing to pursue developmental activities at work. These results were found not only among younger employees but also among older ones.

All in all, the task allocation behaviours of peers and supervisors in particular significantly influence employees' opportunities for development and learning, and thus their employability.

Conclusion

In this chapter, we have argued that careers involve a nonlinear sequence of different and unpredictable work activities and roles. Therefore, employees' career success will highly depend on their employability (the ability to gain and retain employment) and the capacity to adapt to and foresee career transitions. Furthermore, we have highlighted that building human capital through job-related training, which is traditionally conceived of as a predictor of career success, is insufficient for keeping pace with the changing job market. Instead, for remaining employable employees should enlarge the quality of their work experiences; that is, the richness, variety and breadth of their tasks and responsibilities. The core element of these work experiences is that they challenge employees to develop new skills that are applicable in a broad range of work activities and roles. In addition, challenging work experiences stimulate work motivation, increase role-breadth self-efficacy, and raise

interest in future learning, particularly when employees repeatedly engage in these types of experiences.

Employees differ in the extent to which they initiate their involvement in challenging tasks. Prior research has shown that employees who are intrinsically motivated, focus on the development of their competencies (i.e., who are mastery-approach oriented), are self-efficacious, and take personal initiative in a broad range of situations will voluntarily engage in challenging tasks. In turbulent economic and labour market conditions, these employees will be more successful than their extrinsically motivated, performance-oriented, unconfident, and inactive counterparts. The latter, more vulnerable, employees need the support and encouragement from the organizational environment for remaining employable.

Organisations, and supervisors in particular, could promote the challenging experiences of employees in several ways. First, supervisors could persuade employees to undertake non-routine tasks and they could do so by stressing development and learning rather than performance goals. Inducing a learning orientation in employees will promote positive feelings toward challenging tasks and employees' trust that these tasks can be accomplished. This requires a culture of tolerance in which employees are allowed to fail on their challenging experiences and – if necessary – can engage in other challenges that fit them better. Second, supervisors could delegate tasks to employees while taking care to assign these tasks to all (rather than only some) employees on a regular base. Moreover, when it comes to the spontaneous division of tasks within a team, supervisors could monitor whether challenging tasks are divided equally among the team members as to prevent that only some rather than all employees perform the advantageous tasks.

Third, supervisors could explicitly address the performance of challenging tasks in the (annual) job interview they have with their employees. Organisations could, for example, promote the making of idiosyncratic deals (i-deals) during (annual) job interviews. Idiosyncratic deals are special arrangements that employees negotiate with their employers (Rousseau 2005). These special arrangements aim to meet the needs and preferences of both employee and employer (Hornung et al. 2008). Although the arrangements can vary in content (e.g., pay, flexible work hours, development, tasks) and scope (a single work element or multiple elements), they tend to particularly involve skill and career development (developmental i-deals). By including developmental i-deal making as a compulsory subject of job interviews and holding supervisors accountable for making developmental i-deals with their employees, organisations could design jobs that are both challenging and attainable for individual employees.

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Chapter 12

Life Design Dialogues for Self's Construction



Jean Guichard and Jacques Pouyaud

Abstract Life and career design dialogue (LCDD) is a method of counselling interview that aims at helping people build future perspectives that give their lives meaning. These dialogues are based on an approach to the factors and processes of construction of the self that combines some contributions of sociology (with concepts such as identity offer, social category, social fields, habitus, etc.), of cognitive psychology (with concepts such as cognitive frame, script for action, self-schema, etc.), of dynamic psychology and conversational pragmatics (with concepts such as dual reflexivity, trine reflexivity, dialogue, narrative, life-story, etc.). This synthesis about the construction of the self describes subjective identity as a dynamic system of subjective identity forms (meaning that subjective identity is all at once plural, embedded in social settings of interactions and interlocutions, unified by a narrative about self, and is evolving in connection with the ways people re-narrate their life stories to incorporate all events impinging on it). The example of Mark's case shows how the activation of trine reflexivity during a LCDD allowed him to construct two expected subjective identity forms forming a future perspective giving meaning to his existence and helping him cope with a career transition.

Keywords Life designing · Counselling interview · Dialogue · Construction of the self · Reflexivity · Narrative · Identity

A combination of the findings by three major analysts of Western societies in the twentieth century—Hanna Arendt (1958), Nobert Elias (1991) and Zygmunt Bauman (2007) makes apparent that these societies define a norm, which affects each individual's life: that of designing their own lives. Post-modern individuals,

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who live in an uncertain world, must give a direction to their existence by themselves such that it makes them experience their active lives as endowed with meaning. Each of them must find his or her answers to a same question (answers that must be reworded and reworded lifelong): By what active life or by what “career” if this word is understood in its primary meaning of “the general course or progression of one’s life” (cf. American Heritage Dictionary 1982, p. 240)—might I give a meaning and a perspective to my existence? This is such a difficult endeavour that various counselling interventions have been conceived to help individuals cope with it. This chapter introduces one of them: the life and career design dialogue (LCDD) (Guichard et al. 2017). It presents, first, its theoretical basis: a synthesis of approaches to the construction of self (Collin and Guichard 2011). It then introduces the major concepts of LCDD (Guichard 2005, 2009), of which dynamism is described in a third section. A fourth one outlines a case study. To conclude, some observations (Pouyaud et al. 2016) of the change processes at work in such dialogues are synthesised.

The Societal and Cognitive Foundations of the Self’s Construction

Construction of self occurs in social contexts. These contexts offer systems of social categories, modes for elaborating new categories, and scenarios (stories, narrative scripts for storying a self to achieve) to those who interact and dialogues within these settings, which allow them to interpret and sum up the different events and experiences—of all kinds—that mark the course of their lives. To describe these phenomena, the sociologist Claude Dubar (1991, 1992) proposed the concept of “identity offer”. This offer is relatively stable. However, it evolves. Through the mediation of their collective actions, interactions, and language games as individuals develop new narratives based on some of the models of life stories included in this identity offer. They thus contribute to the production of new categories having at first only a local value, before some of them become widespread and perennial. Many of these emerging categories are linked to protest groups who construct interpretative categories, which allow them either to revalue, to devalue, or even harm the image of certain individuals (e.g., gay, paki, islamophobic, populist.). As events unfold in the history of a certain collective, some of these categories consolidate while others become obsolete.

Individuals construct their subjective identities within the framework of this identity offer. They interpret the events and experiences that mark the course of their existence by referring to concepts, categories and narrative forms that are part of this offer. Dubar (1991, 1992) has described three key processes of this construction: relational transactions, biographical transaction and storying the life course. Relational transactions refer to processes of self-definition linked to recognition of self by others. These transactions are based on acts of attribution by others (e.g., a

teacher can say to a pupil: “you are a real mathematician”) and acts of affiliation, which are acts of self-recognition as such (this pupil can tell himself: “I am a mathematician”). Relational transactions are based on interactions, dialogues, and sometimes conflicts with others, which take place in specific settings. Consequently, relational transactions go in the direction of the formation of a plural subjective identity: an individual recognising him/herself “such”, and “such”, and again “such”, according to each of his/her relational transactions. The biographical transaction is a process of this unification of pluralities, of which is at stake for the individual to be recognised as the one he/she considers to be he/she is. This transaction allows individuals to link their different acts of affiliation (their various “such” recognitions of self, and acts of rejection or of adaptation of certain “stigmatising” attributions) in a narrative that unifies their life course and gives continuity to it. It is a process “by which individuals anticipate their future from their past” (Dubar 1992, p. 520). This transaction is based, in particular, on self-narratives or on inner dialogues. Through their mediation, individuals aim at giving meaning to their life paths, articulating their various social affiliations and incorporating them in a certain personal history. This narrative—the product of the biographical transaction combining the different relational transactions of any individual—constitutes, for Dubar, his/her “identity”, which is indeed nothing more than a narrative: a story of their lives that individuals construct based on one or more intrigues (Ricoeur 1988).

This emphasis on the role of contexts and social relations in the construction of individual identities is a fundamental contribution of contemporary sociology to the issue of individual construction of subjectivities. The limit of this contribution is that of sociology itself, which remains blind to the cognitive processes it presupposes. Indeed, individuals can engage in the transactions described by Dubar, only by cognitively seizing the social categories and processes of social categorisation and by using cognitive processes to handle this piece of information.

Which cognitive phenomena are generated by the social phenomena described by Dubar? Based on the review by Lawrence Barsalou, in his chapter on knowledge in memory (1992, pp. 148–185), it seems that this question can be answered by following two hypotheses. On the one hand, all experiences and events marking any individuals' life, in the social settings where they are lived, lead these individuals to construct, in memory, *systems of identity cognitive frames* corresponding to the organisation in their minds of systems of social categories and categorisations—and of modes for narrating individual existences—which exist in their social contexts: an organisation, which is a function of these experiences and events. On the other hand, in these same contexts, individuals construct in their minds *systems of subjective identity cognitive frames* that are the cognitive foundations of the perception of themselves and their behaviours in the different settings in which they act, interact and dialogue.

The concept of “cognitive frame” was defined in 1977 by Marvin Minsky for describing some memory structures of attributes having default values. These large cognitive structures link together perceptual and action phenomena and lead to inferences when specific information is lacking. This concept of “cognitive frame” appears well adapted for describing the mental structures of memorisation of social

categories or categorisations. Therefore, it seems that one can speak of “identity cognitive frames” for referring to cognitive structures in long-term memory that include, in particular, schemas relating to the personality of the concerned individuals, action and interaction scripts (Schank and Abelson 1977), as well as a set of more or less intense affects and emotions. Insofar as “concepts do not exist independently of each other in memory, they form conceptual systems” (Barsalou 1992, p. 177), the identity cognitive frames inevitably form, in each individual’s mind, a system of identity cognitive frames. Claude Dubar’s concepts can advantageously be connected with those of “social fields” and “habitus”, as defined by Pierre Bourdieu (Bourdieu and Wacquant 1992). Bourdieu has shown that human interactions occur in various social fields. A field is a relatively autonomous social domain within the social macro system. Each field – characterized by its own rules, values and interests – forms a hierarchical structure of positions. Depending on the position an individual occupies in the different social fields in which he/she interacts, he/she constructs a certain habitus, that is to say his/her own repertoire of perceptive frames, believe systems, and patterns of action. The combination of these concepts of Dubar and Bourdieu with that of identity cognitive frame thus leads to the following conclusive hypothesis: The system of identity cognitive frames of any individual is the cognitive structure in long-term memory of the identity offer of his/her society, as he/she was able to construct it on the occasion of his/her actions, interactions and interlocations, which are functions of the positions that he/she has occupied – and occupies – in each of the different social fields where he/she interacts.

By referring to their systems of identity cognitive frames, individuals construct, in their minds, systems of subjective identity cognitive frames that constitute the cognitive, affective and conative foundations of the perceptions of themselves and their behaviours in the different settings, in which they act, interact and dialogue. The concept of a subjective identity cognitive frame aims at explaining that when individuals memorise information about themselves in relation to an identity cognitive frame, the attributes’ default values of this cognitive frame take on particular values, the implicit theories of personality become self-schemata (Markus 1977), the scripts of actions, interactions and interlocations become more precise, some more strongly felt sensations, emotions and feelings are linked to it, and so on. Subjective identity cognitive frames form a system (except in pathological cases of dissociated or divided self) corresponding to an individual’s long-term memory arrangement of cognitive, conative and emotional structures about his/her current experiences, (e.g., “I-engineer”, “I-family father”, “I-union militant”), past experiences (I-student at X university, “I son of...”) and anticipations or expectations (e.g., I-retiree operating a bed and breakfast in a rural area).

In summary, a person’s system of subjective identity cognitive frames can be seen as a “conservatory” of this person’s subjective identity, as it indeed transforms relatively slowly. It evolves according to the changes in the identity offer of the society. That is to say: from the point of view of the structures organising a person’s memory, according to the evolution of his/her system of identity cognitive frames. It also evolves according to the characteristics of this person’s memory (and can completely fade, as seen in the terminal phase of certain memory’s pathologies). It

also evolves, as we shall see, according to the actions, interactions, dialogues, emotions or sensations, of this person in the different situations of his/her daily life and, specifically, during life-design counselling interventions.

The Dynamism of the Subjective Construction of Self

The system of subjective identity cognitive frames is an inferred cognitive substratum designed for describing cognitive structures in long-term memory. Such structures are unconscious. The system of subjective identity cognitive frames of a person is the—non-conscious—cognitive foundation of what can be called his/her subjective identity: that is to say, the total set of his/her different ways of being, of acting, of perceiving (him/herself and others), of feeling, etc., in his/her different—current, past or anticipated—life settings: a set the person may be more or less aware of.

This subjective identity is described as forming a dynamic system of subjective identity forms. A *subjective identity form* (SIF) consists, firstly, in a set of ways of being, of acting, of interacting and of dialoguing in a certain setting; second, it involves a certain perception of self, of others and of significant objects in this setting; and, thirdly, it comprises a collection of various affects, sensations, feelings, emotions, etc., “thus” experienced in this setting. For example, when a young girl says, “my girl-friends are what interest me above all at high school”, she begins to describe her high-school SIF. A SIF is a certain activation-updating of the underlying subjective identity cognitive frame, in a certain context of action, interaction, dialogues or reflection. It is activation: for acting in a certain context or for referring in thought to him/herself in relation to a certain category of experience, a person refers immediately—and without being aware of it—to the underlying cognitive frame. But this activation usually gives rise to some updating: the cognitive frame must adapt to the peculiarities of the current situation of action or must open up to new interpretations according to the person’s new life experiences. In other words, using the vocabulary of Jean Piaget (1967, 1992), it can be said that the identity frame “s’accomode”. Piaget defined accommodation as.

a modification of patterns of assimilation under the influence of external situations (milieu) to which they apply. But just as there is no assimilation without accommodation (past or present), so there is no accommodation without assimilation: it means that the milieu does not simply cause the recording of prints or the formation of copies, but that it triggers active adjustments and that is why we speak only of “accommodation” when we mean “accommodation of patterns of assimilation” (Piaget 1992, p. 25).

This is exactly what happens to each identity cognitive frame: it updates itself – enriches and differentiates itself – on the occasions of its various activation-updating in the corresponding SIF.

A SIF (sometimes two) is usually more important than others in a person’s system of SIF at some point in his/her life. Various factors indicate that a SIF is a core one into a person’s system of SIF. First, when the person hopes to achieve “as such”

something eminently meaningful to him or her. I.e., when that SIF matches a current life domain where the person wants to achieve a certain state of excellency that gives his/her life meaning, Secondly, when this current SIF is related to an expectation of achieving a future goal that matters a lot to the person. For example, research into four top-level young athletes showed that for each of them, the figure of the Olympic podium champion was a major component of an expected SIF that gave coherence and meaning to their current ascetic lives and allowed them to accept the sufferings caused by the intensity of their daily training, without too much displeasure (Szejnok 2012). A SIF is a core one into a person's system of SIF, thirdly, when the individual experiences, as such, positive emotions that are meaningful to him/her. Fourthly, when the meanings of other SIFs in this person's system of SIF, is no more than those of their contributions to this core SIF (e.g., when a person says "I swim to be in peak condition for passing for my exams", this "swimmer SIF" is probably peripheral to a more central one: "student"). This objective matches an expected SIF that this person hopes to construct.

A SIF, which includes such expectations of self-achievement, plays a central role in the organisation of a person's dynamic system of subjective identity forms. His/her system is organised according to this perspective of self-achievement that gives meaning to his/her life at that moment. In many cases this central SIF is related to a past SIF that has played an important role in the person's life or that matches expectations about him/her from other people whose views matter to the concerned individual. For example, most top-level young athletes have discovered their sport (and competition) through a family member (e.g., father, mother, uncle), a figure with whom they have identified when they were children.

A person's system of SIF is not an immutable structure. Two categories of interacting factors play a role in its transformation. The first one corresponds to a relatively slow temporality: A person's system of SIF evolves according to the changes in his/her system of identity cognitive frames, that is to say according to the evolution, in his/her long-term memory, of the organisation of the information about the identity offer stemming from the societal settings, in which he/she interacts. This means, for example, that a person can construct him/herself in the subjective identity form of an "Islamist fighter", only to the extent that such social categorisation exists and prevails in his/her mind.

The second category of factors that play a role in this transformation of a person's system of SIF includes all changes and experiences that mark the course of a life and the way in which that person experiences and interprets them (in relation to the evolution of his/her system of identity cognitive frames). The course of a life is indeed marked by a series of learnings, events, changes (maturation, successes, failures, accidents, encounters, aging, etc.) forming what can be called the person's life experiences. These play a fundamental role in transforming this person's system of SIF both directly (e.g. because of an accident, the person can no longer practice his or her job) and indirectly: that is to say depending on how he/she relates to the experience in question (feels it and interprets it), in relation to the form of reflexivity that he/she then prioritises.

Indeed, two forms of reflexivity can be distinguished (Wiley 1994): dual reflexivity and trine reflexivity. Dual reflexivity has already been introduced on the occasion of the previous example of top-level athletes. It has been described by many authors, notably Jacques Lacan (as “mirror stage”) (1977), Erik Erikson (1980) and Michel Foucault (1983). It is a way to relate from oneself (as a subject) to oneself (as an object for oneself) from the point of view of a certain state of perfection or of a certain ideal that the person wants to achieve. A consequence of this mode of relationship to self is that the person defines and implements certain activities or behaviours in order to attain this state of perfection. For example, Piriou and Gadea (1999) have showed that some French students in sociology defined themselves as “sociologists”, while others said they were “students” or “sociology students”. The former described the sociologist whom they considered they already were, according to the major features of the image given then by the media of the “great sociologist”: Pierre Bourdieu. These students, who saw themselves as “sociologists”, were much better off in their studies (they obtained their Master’s degree) than the others, who tended to dropout. The formers’ success can be explained by their greater personal investment in their studies: they perceived them as the work of the great sociologist “in the making” that they considered being. The ideal to be attained may correspond to narratives of “exemplary” lives, which are part of the society’s identity offer: narratives that also specify how to act and behave in view of attaining this state of perfection. Dual reflexivity is a stabilising factor of a person’s system of SIF as, when he/she is prioritising it, he/she is directing his/her life towards this goal.

The second form of reflexivity was named “trine” —in reference to the works of Charles Sanders Peirce (see Colapietro 1989) and Francis Jacques (1991) —because this form of reflection is that of a three-position dialogue, during which “I” says “you” (something) (“you” = another one or myself). “You” understands “something” about the “something” that “I” has said. What “you” understands about the “something” that “I” stated was named by Peirce his “interpretant.” By relying on this interpretant, “you” answers “I” “something”. “I” then produces a new interpretant: what “I” understands about the “something” that “you” has answered. And so on ... In other words: at each turn of speech in an (intra-individual or inter-individual) dialogue, there is a discrepancy between what “I” says and what “you” hears about it and responds accordingly.

A dialogue can be intra-individual (a person, who thinks about a problem, engages in a dialogue with him/herself) and/or inter-individual. It must be emphasised, however, that an inter-individual dialogue is always at the same time intra-individual: when “I” says “You” something, “I” (placing him/herself at the supposed point of view of his/her interlocutor’s “you”) asks him/herself if “you” understands exactly what “I” means. In other words, “I” considers what he/she says from the point of view of its potential understandings by other “yous” (including that of his/her actual interlocutor). Therefore, in both inter-individual and intra-individual dialogues, at each turn of speech, a gap occurs, in the mind of the dialoguing person, between what “I” says and what “I” hears he/she may have said from the points of view of the “yous” that are induced in his/her mind by the current dialogue: “yous” who, in an inter-individual dialogue of everyday life, are at least two: namely

“you” = what “I” hears him/herself saying and “you” = what “I” imagines that his/her interlocutor understands. In other words, any dialogue produces resonances from some “yous”, echoing what “I” has said in the mind of the dialoguing person. These resonances induce affects (emotions, feelings, etc.) in this person that vary in nature (pride, shame, regret, remorse, anger, joy, sadness, etc.) and intensity in relation to each of these “yous”. Such affects are likely to play an important part in the dynamism of the dialogues (e.g., by creating in the mind of the person a desire of asserting him/herself as defendant of a certain position).

Trine reflexivity is particularly activated when people wonder about future prospects that might give their lives meaning. This is particularly the case when their internal discourses, which usually organise their lives and relationships to the world (their systems of subjective identity forms), prove insufficient to cope with a transition. People must then rewrite the grammar of their internal discourse. To this end, they engage in dialogues with themselves or with relatives. They can also engage in a dialogical relationship with a counsellor. As we shall see, such a relationship has specificities that endow it with a far more important power for reorganising a person’s system of SIF than dialogical relationships of everyday life.

Dynamics of Life and Career Design Dialogue (LCDD)

Life and career design dialogue (LCDD) (see Guichard et al. 2017) aims at assisting people to deal with psycho-social transitions (Parkes 1971), by helping them define personal and occupational future prospects, that give meaning to their lives, and to commit themselves to their realising. The rationale of LCDD consists in four stages, usually on the occasion of three meetings between counsellor and counselee spreading over a few weeks. The objective of the first stage is to build a working alliance, that is to help counselees express and clarify the fundamental questions they want to answer, to propose them—if this procedure is adapted to their questionings—to engage in LCDD (by explaining their methodology) and to agree with them on the concrete way to organise this counselling approach. The next step is helping them make an inventory of past, present or hoped-for life experiences that they deem important. The third stage is a description by counselees of the SIFs corresponding to those of their life experiences they consider to be the most important to themselves. This step is the heart of this counselling intervention: in fact, this in-depth analysis of their major life experiences (i.e., their verbalisation of the SIF that matches each of them) enable counselees to become aware of the relative importance of each of their SIF, of their relationships, and through this very verbalisation, to identify some fundamental expectations about their future that these recognitions and connections make emerge. The final step is a review with counselees of the future perspectives they have constructed through this analytical work, a definition of the means they can use to make these future prospects becoming real, an enquiry about the fulfillment of their needs by the dialogue procedure, and a conclusion of the dialogic relationship. Table 12.1 outlines the rationale of LCDD. It describes

Table 12.1 Methodology of a life and career design dialogue (LCDD)

Overview	Objectives	Method	Remarks
	<p>Life and career design dialogue (LCDD) aims to help an individual define future prospects – not necessarily career related – that give meaning to his/her life and commit him/herself to see these prospects' through to completion.</p>	<p>A counselling interview between a counsellor and a counselee who meet three to four times over a period of time ranging from 2 to 6 weeks. Four main questions are dealt with:</p>	<p>LCDD is a dialogue. This overview describes their underlying logic that counsellors should bear in mind. The form of any actual dialogue may be different as it must follow the associations made by the counselee.</p>
		<p>What are the questions to which you (counselee) would like to find answers? Which issues do you want to cope with? How can we proceed to find answers to these questions and issues?</p>	
		<p>What life domains and experiences play (have played or could play in the future) an important part in your (current, past and wished for or feared in the future) life?</p>	
		<p>Could you please talk about yourself in one of these major experiences or life domains (your behaviour, learnings, feelings, expectations, fears, relationships to yourself and to others, etc.)? In a second one? A third one? ... Which themes – linked to some expectations about your future – design the recurring words, expressions, etc., you used and the feelings you experienced during these narrations?</p>	<p>Generally: Questions one and two, as the narration of a first major life experience or domain, are dealt with during the first meeting. A second one continues the narrations about these important experiences or domains. The fourth question is answered during a last meeting that puts LCDD to an end.</p>
		<p>What are you going to do now to commit yourself to realising these expectations?</p>	

(continued)

Table 12.1 (continued)

	Objectives	Method	Remarks
<p>First inquiry (working alliance)</p>	<p>Helping counselee express the major questions on which he/she would like to reflect.</p>	<p>The counsellor asks the following question (borrowed from Mark Savickas): “How can I be useful to you?”</p> <p>Then the counsellor converses with the counselee to help him/her express the issues that matter most to him/her. The first questions raised are rarely those that matter most to the counselee. The counsellor uses a combination of non-structured or semi-structured interview techniques to help counselee express his/her major question. This includes reminders about the initial question, reflecting on or echoing counselee’s words, requests for clarification, rephrasing, syntheses, specific questions, etc.</p>	<p>When LCDD does not seem adequate to meet the needs of a counselee, the counsellor offers another solution for helping him/her finds answers to the questions he/she has constructed during the working alliance.</p>
<p>When he/she says (for instance) he/she wonders about future perspectives that will give his/her lives meaning, counsellor propose the LCDD and explain its methodology in emphasizing the fact that such a dialogue imply reflection by counselee.</p>	<p>If the counselee’s major expectations are about becoming aware of, or clarifying, their expectations, anticipations or major hopes that can give his/her lives meaning today, the counsellor offer him/her an opportunity to engage in LCDD.</p> <p>The counsellor explains the method: A dialogue, during which counselee reflects on various aspects of his/her current life (work, family, important relationships, recreation, etc.), on some past experiences or events that have mattered to him/her, and on his/her expectations regarding his/her future.</p>	<p>A dialogue is implemented:</p> <p>in keeping with what was said during the construction of the working alliance, in bearing in mind the counselee’s enquiries, and in following the logic of his/her associations.</p>	

	<p>Reaching an agreement between client and counsellor to engage in either such a dialogue or in another counselling method.</p>	<p>The counsellor stresses that reflection is the counselee's responsibility; the counsellor's role is only to stimulate his/her thinking.</p> <p>Such reflection takes time: three or four meetings, spread out over a period of about a month, are often needed.</p>	
<p>Second inquiry (life domains & experiences)</p>	<p>Helping counselee identify life experiences and domains that matter to him/her (or have been important to him/her or he/she would like them to count on in his/her future).</p>	<p>The counsellor usually initiates dialogue by asking a question like the following: "To enable you to clarify your major life expectations, I suggest you start by thinking about the life domains, spheres of activities, roles, experiences, events, etc. that are important in your current life, or have mattered in your past one, or that you want them to matter to you in the future. Which (past, present or future) life domains, sphere of activities, roles, experiences, events, etc., come to mind?"</p> <p>The counsellor provides as much explanation as may be needed to ensure a better understanding of the question.</p> <p>The counsellor uses a combination of non-structured or semi-structured interview techniques to enable the counselee to state the domains, spheres, roles, experiences, events, etc., he/she considers important in his/her life. This includes reminders about the initial question, reflecting on or echoing clients' words, requests for clarification, rephrasing, syntheses, specific questions, etc.</p>	

(continued)

Table 12.1 (continued)

	Objectives	Method	Remarks
Third inquiry (your major future expectation)	Helping the counselee to design some expectations for his/her future life on the basis of some similarities of wording and feelings in his/her stories about him/herself during different life experiences or domains important to him/her.	Following this initial talk, the counsellor can provide the counselee with an inventory of the domains, spheres, roles, experiences, events, etc., he/she considers important in life. Both discuss this inventory that is edited in accordance with counselee's comments. Both agree on the domains, spheres, roles, experiences, events, etc., that counselee should analyze during the following phase. Three steps: Step 1	Third inquiry is the heart of LCDD. It is the foundation of its dynamics.
		The counsellor usually initiates dialogue by asking a question like the following: "Our goal is now to help you become aware of your main life expectations on the basis of your narrations about of the domains, spheres, roles, experiences, events, etc., that you consider important in your life". Which of them do you want to narrate first?"	When LCDD is implemented during three meetings, the first one generally terminates at the end of the first step of the third inquiry.

	<p>The counsellor then helps the counselee speak about him/herself in the chosen domain, sphere, role, experience, or event, etc. To this end, he/she uses all the techniques of unstructured or semi-structured interviews (reminders about the initial question, reflecting on or echoing clients' words, requests for clarification, rephrasing, syntheses, specific questions, etc.).</p>	
	<p>Sometimes he/she needs to ask questions such as: What can you tell me about this domain, sphere, etc., in relation to yourself? What does this domain, sphere, etc., offer you (or offered you, or could offer you in the future)? Which interests are revealed? Which hostile reactions are displayed? Which expectations are revealed? What knowledge, skills or abilities are uncovered? Which relationships are exposed? Which resources are discovered? Which individuals do you (or did you, or do you expect to) admire or reject in this domain, sphere, etc., and why?</p>	
	<p>Following this first narration, the counsellor may synthesise what the counselee has said by highlighting the assertions that were prominent. Both discuss these syntheses until they fully agree on all major points.</p>	

(continued)

Table 12.1 (continued)

Objectives	Method	Remarks
	<p>Step 2</p> <p>This discussion precedes the counselee's commitment in the narration of a second domain, sphere of activities, role, experience, event, etc., he/she considers important: Which domain, sphere, role, experience, event, etc., you consider important in your life, do you think to narrate now? Why this one now?"</p>	<p>During these processes, counsellor's role varies depending on counselee's idiosyncratic preferences and actions. Whereas some counselees establish by themselves links between their statements (links that reveal their expectations or needs for self-actualization), others need support from counsellors. In such cases, counsellors must highlight and repeatedly recall possible associations that can be made between what clients say and feel at different stages of their narrations.</p>
	<p>During this second narration, the counsellor helps the counselee in the same way as during the first one.</p> <p>But, moreover, he/she encourages the counselee to producing links between his/her current narration and the previous one: Are there come common points? Some common wordings to express some stories' parts? Do both stories have aroused similar or different emotions or feelings in the narrator? What do these connections reveal (a common theme? Similar expectations)?</p>	<p>Among the links that counselees make between their experiences, events, roles, activities, etc., those between past and current (or more recent) ones play a major role in the designing of future prospects that give their lives meaning. For this reason, counsellors' interventions in the dialogues must be aimed at helping counselees to make such associations and narrations.</p>

	<p>Step 3</p> <p>The dialogue continues with narrations of other life domains, spheres of activities, roles, experiences, events, etc., deemed important by the counselee (in following the associations he/she makes between them), until the links that counselee makes between his/her various statements, emotions and feelings lead him/her to either identifying some major anticipations, aspirations or expectations or to highlighting one (sometimes two) life domain(s), sphere(s) of activity, role(s), experience(s), etc., in which he/she currently expects to fulfill his/her needs for self-actualization.</p>	<p>During this process, the counsellor's empathy (his/her ability to follow the counselee's lines of reasoning and feeling) – as well as the adequacy of his/her rephrasings, echoes, questions, reminders, partial syntheses, etc. – play a major role in the counselee's growing awareness of a certain thread connecting some elements of his stories: a thread which opens up to some expectations about his/her future.</p>	<p>Sometimes, the counsellor must sketch a synthesis – presented as a hypothesis – outlining some aspects of the counselee's narratives that seem to indicate his or her major expectations about his or her future (and/or the areas, spheres, roles, experiences, etc., that are the object of such expectations).</p>	<p>In all case, the outlined future prospects are discussed. The counsellor proposes counselee to think about them before their next meeting (which cannot take place, at the earliest, only some days later).</p>
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(continued)

Table 12.1 (continued)

	Objectives	Method	Remarks
Fourth inquiry (what are you going to do now?)		Three steps. Step 1	
	Taking stock of the counselee's current major life expectations.	The counsellor can start by either asking an open-ended question or by using a more structured procedure. Open ended question: Have you thought about what we have said at the end of our last meeting? Have you thought about the expectations and life domains that appear the most important to you? How do you see this matter today?'' More structured procedure:	
		''At the end of our last meeting, we began to take stock of the major expectations that emerged from your analyses of the life domains, spheres of activities, roles, experiences, events, etc., that you consider important. During this dialogue, we have noticed that the following expectations emerged: (counsellor recalls the major points highlighted during the last meeting's final synthesis and during the discussion that followed) ... Do you agree with that? How do you see this matter today?''	
		In both cases, the dialogue that follows aims to ensure that counselee has expressed his/her major expectations (expectations that give his/her current life a meaning): Does he/she see him/herself performing these activities in the future? Playing these roles? Realising these dreams? Are these expectations reinforced by people that matter to him/her? Conversely, has the counselee given an undertaking to convince these people of the merits of his/her expectations?	

	<p>Helping him/her specify what he/she needs to do to maximize the chance of making his/her expectations come true.</p>	<p>Step 2 Once such an assurance has been given, the counsellor asks the counselee to scrutinise his/her current life from the perspective of having achieved his/her fundamental expectations: what should he/she do to increase the chances of realising them? What actions need to be taken? What steps need to be taken? What changes must he/she make in his/her current life, and, more specifically, in which of his/her life domains or spheres of activity? The dialogue continues until some action plans have been specified by the counselee: plans to the realisation of which he/she is ready to commit him/herself.</p> <p>Step 3 The very last stage of the dialogue begins by providing feedback on the intervention that is coming to an end: Does it meet all the concerns expressed by the counselee? If some questions or issues have not been dealt with: What should be done to cope with these concerns? Should a more appropriate intervention be undertaken now?</p>	
	<p>Questioning the dialogue that has taken place: Does it deal with counselee's essential questions? If not, which other counselling interventions could might be undertaken?</p> <p>Ending the dialogue relationship.</p>	<p>Finally, a conversation aims at putting an end to the dialogue relationship. The counsellor informs the counselee that his/her reflections led him/her to the present conclusion. Today, this conclusion is probably important for him/her. But it will probably be viewed from other perspectives later in his/her life. At that stage, the counselee will carry out similar reflections by conducting inner dialogues, or dialogues with significant people around him/her, or (again) dialogues with a counsellor.</p>	

(continued)

what counsellors must have in their minds when they use this method. But actual LCDD is a dialogue. Therefore, this rationale needs to be adapted to the interlocution's course: counsellors do not have to follow it step by step.

Trine reflexivity plays an essential role in the third stage of these dialogues. As it has already been noted, the narration by a person during a dialogue, of each of his/her important life experiences, on the one hand, opens the expressed experience to certain new potential meanings and, on the other hand, triggers some affects (that are more or less varied and intense) in the narrator. This double phenomenon opens way to the production of connections between experiences (e.g., when the narration of two experiences leads a person to say that they have similarities or when this narration causes similar affects in him/her), or, conversely, to making distinctions between experiences, or, differently, may lead a narrator to taking a stance (e.g., when he/she comes to think that he/she must transform into pride a shame felt during certain life experiences). In the course of this process, each of the narrated experiences is, in a way, at first, "dis-embedded" from some of the particular life circumstances in which it took place. This "dis-embedding" opens it to new potential meanings and produces various affects in the narrator: these new meanings and affects are the basis for possible connections between the narrated life experience and others ("dis-embedded" in the same way). The story of each life experience is thus first deconstructed and then reconstructed by linking it with other ones: linking made possible by similarities in meanings and in evoked or induced affects (Savickas 2013). This way, people develop certain potential future perspectives that can give meaning to their lives.

LCDD is not the only kind of dialogues that induce such processes: dialogues with close or intimate ones can help a person build meaningful future prospects. But LCDD and other counseling dialogues have a characteristic that gives them a far greater power than of other dialogues to produce such a change: a characteristic described by the notion *primum relationis* (Jacques 1991): in any dialogue, the relationship comes first. This means that in any dialogue, it is the relationship that creates the "I – you – he/she" positions that are uttered, or being referred to, during the turns of speech. But in the dialogues of everyday life, the relationship is always determined by certain habits or is a function of the social roles of the dialoguing people. These are, for example, the dialogues of these two spouses, or of this student and her teacher, etc. And the "I, you and he/she" produced during these dialogues bear the mark of this first determination: they are "I-you-he/she" of these routine dialogues between these spouses, or between ..., and so on. In counselling interventions, the relationship constructed during the working alliance "produces" both a counselee and a counsellor. The counselee, instituted by LCDD relationship, is a person who enters into dialogue with himself or herself, through the mediation of a dialogue with a counsellor who is himself or herself instituted, by the working alliance, as a person with no other determination than that of supporting the counselee's inner dialogue through his/her interventions. Such a dialogical relationship gives the possibility of creating new "I – you" relationships in the counselee's mind. Thus, he/she can leave the beaten paths of the dialogues of his/her everyday life (during which the talkers are generally trapped in "Is" that are predefined by the

characteristics of their actual relationship, e.g. the “I” that this son usually utters when he talks with his mother) and produce, on the occasion of this counseling dialogue, new “Is” who are initially tentative “Is”, as explained in the following paragraphs.

This phenomenon is attested by the examination of the processes of change, during counselling dialogues (see: Pouyaud et al. 2016; Guichard 2016). On this occasion, counsees produce different “narrative” I. For example, a young man produced the following “Is”: “I” teach school support, “I” train young footballers, “I” prepare the certificate of rescue at sea. Given the specificity of the dialogical relationship in LCDD, this young man heard each of his “narrative Is” from the point of view of a multiplicity of “you”. Specifically: “you” = himself, the narrator who hears he said this; “you” = what he imagined that the counsellor may possibly have heard and understood, “you” = other people in his circle (including relatives) who could have heard him say “this” and could comment “this way” what he has said, or who in fact have already commented it “this way” in the past, etc. The dialogical relationship in LCDD thus produces in the narrator’s mind the polyphony of resonances of “yous” echoing these different “narrative Is”. It is this exacerbation of trine reflexivity that allows the counselee to bring together these different “narrative Is” and to compare them both synchronically (currently, “I” do this and “I” do that) and diachronically (today, “I” do this and, in the past, “I” used to do that) and, thus, to produce a (provisionally) final interpretant: what these narrative “Is” have in common. In other words, a certain interpretation that endows these different narrative “Is” with a common meaning. This (provisional) final “I” is a more encompassing “I”. Thus, the young man, referred to earlier, arrived at saying something like: “I” who does this (training young footballers) and that “I” who does this (tutoring of young people in difficulty) and again this “I” who ... makes it clear to me that “I” wishes to be useful to others. This more encompassing “I” is also a more self-assured “I”: No doubt, “I” am indeed this “I”.

But, for making this “encompassing and more assured I” (produced by trine reflexivity) becomes a “subject of action” (for making the narrator become an actor who commits him/herself to the achievement of this “I”), this “I” needs to be emotionally invested. This “I” must be an object of identification. The person must imagine him/herself as this “I”: he/she must desire to become this “I”. This is precisely where the processes of dual reflexivity intervene. As we have seen, in dual reflexivity processes, a person constitutes him/herself as an object to him/herself, from the point of view of a certain ideal that he/she wishes to attain. In adolescents and emerging adults (but not only in them), this ideal usually corresponds to some anticipated SIF anchored in the image of a character to whom they identify. This anticipated and desired SIF then plays a decisive role in the (re) organisation of their system of SIFs. Different observations have shown the importance of the recognition and validation of the provisional conclusions of trine reflexivity, by relatives of the person who count for him/her, to make him/her engage in a process of dual reflexivity. This means: for making that the prospect of becoming this “I” be transformed into a desire of achieving oneself as this “I”. For example, the young man of the previous example immediately saw himself in the image of a general practitio-

ner when he declared “I want to be useful to others” as this view of him corresponded to a word that his father went on repeating: “I see you as a doctor.” In contrast, the different future perspectives that another young man constructed on the occasion of LCDD provoked only rejection from his family’s members (notably his mother: “no, I do not see you in the army”) and it is only 2 years later that this young man was able to commit himself in the realisation of a future perspective matching a desire to construct himself in this way (in his case: gendarme). The flowing section presents a case study that gives a more concrete view of LCDD dynamics.

A Case Study

Context of Dialogue Mark (name was changed to preserve confidentiality) was 25 years old. He was met as part of a research project of the University of Bordeaux (France) aimed at implementing and studying LCDD. Mark applied to participate in these interviews. He contacted the University following an advertisement offering this counselling intervention which explained that its purposes were both to help counselees find answers to their career related questions and to observe the processes and factors of the LCDD dynamics. A first telephone contact with Mark detailed the specifics of the research conditions (locations, audio and video recordings). An agreement was made about a first-meeting’s date. After providing informed consent, LCDD was implemented in the same way as regular career counselling interviews (except that it was filmed). A self-confrontation procedure was also carried on at the end of LCDD, both as an optional complement to the counselee’s personal reflections and, for the research purpose, as a way for approaching the dialogue’s dynamics (for details, see Pouyaud et al. 2016). Four meetings took place during a 1-month period of time. The first three corresponded to the LCDD procedure described in Table 12.1. The fourth one used the Savickas career construction interview (Savickas 2011) in view of comparing this mode of interaction with LCDD: both of them being anchored in the same constructionist framework of the Life Design paradigm (Savickas et al. 2009). During LCDD, a large sheet of paper (A1 size) was used as a support to note items discussed with Mark, in the form of diagrams.

Mark’s Situation and Issues To the starting question: “How can I help you?” Mark answered: “Personally, I expect that [... these interviews] can allow me to be trained, to gauge myself, to make kinds of assessment in relation to my career—both professional and personal—and to think about what might be beneficial for my future, in anticipation of future interviews and career decision making”.

Mark was then working in a bank as a junior manager in the real estate business. His job was to manage the loan files to individual or collective building companies. He had been doing this job for a year and a half. This was the first one he found after

studying law, mainly because an access to this field was easy as it offered various opportunities. He said that he took this job because it allowed him to have a first work experience, to “get into the stirrup” of the urban planning work. He was then in the field of real estate files’ editing “on the financial and bank side”. But this aspect displeased him: “it is a too cold one that does not match me because it is neither my training nor my vocation”. He rather dreamt of architecture and urbanism: “I would prefer to be on a more urbanist and sociological side, thinking about the city, about what can be done so that tomorrow a maximum of inhabitants can have good lives—it’s utopian eh! —but, at least, can live as best as possible.”

When Mark came for the first interview, he had just resigned a few weeks earlier and would have to leave the bank in the coming weeks. He said he wished to be supported so as not to make bad choices and to be prepared for future job interviews by taking stock of “what I really like” and his personal situation. He said:

Yes that’s it: the meaning that one can give to one’s work, and as a consequence comes a kind of [...] blooming occurs at the end. [...] Being the widest and the most open and curious at the beginning... And come through a funnel with more precise and concrete points towards the end. It’s going in the dark with lots of questions at the beginning and then trying to find answers.

In addition, a more core issue emerged from his thoughts about his expression “what I really like”: a doubt (or even an anxiety) about having to make his own decisions: decisions based on his own desires and not for a purpose of conformity with family traditions.

Mark’s Narration of his System of Subjective Identity Forms (SSIF) and Construction of a First Expected Subjective Identity Form (ESIF) During the first step of the dialogue’s third enquiry (see Table 12.1), Mark explored the professional sphere in which he was then working. He narrated it in considering his relationships to self, to others, to objects and also in terms of his actions. A set of characteristics specifying the identity form “me as working” was thus constructed. As each one of these elements was discussed, the counselee and the counsellor wrote it down on the A1 sheet so as to design a graph that they progressively co-constructed.

For example, concerning his relationships to self, Mark said: “My immediate behaviour is based on affect and trust”; “Although a hard-worker, I’m sometimes a scatterbrain”; “good-natured and jovial”; “I like things to be well done”; “I like to laugh or try to make people laugh, but I still prefer to help them be in a good mood.”

As regards actions, he stated: “a rather clerical work”; “with no travel, a really sedentary occupation”; “quite repetitive”; “Actually, it is more a work of implementation than one requiring brain-level designing.”

He narrated his relationships to others in this setting as follows: “something I will regret is the atmosphere at work, because it’s true that, in the team we form, we all get along very well: we do good work and, at the same time, we have fun together

and discuss”; “every morning, we enjoy seeing each other again and working together”; “We all work in the same room and there are plenty of interactions.”

Finally, about his relationships to the object of his work, Mark contended:

I think it's too austere, I'm neither attracted at all by the financial side, nor by money trading; it's really financial management; giving more meaning to what I want to do implies that I understand how useful is my job; building housing that are all squares, all white, all classics, that are eventually not very beautiful and sometimes have quality problems, although their price may sometimes be frightening, all that has no interest in itself. I, what I would like is really to make a meaning of all that: why do we do that so as to offer people a home.

From all these elements, discussed during Mark's dialogue about his sphere of work, there emerged a first expected subjective identity form (ESIF) that was a kind of biographical compromise (in the sense defined by Dubar. See part 1 of this chapter): a “plausible” anticipation in which he could see himself in the future. This professional expectation allowed him to combine what suited him in his current work and something he would like to do for giving his active life a meaning. This ESIF can be described by giving it a name: “Designer-director of urban development programs for housing (especially social ones) aiming at permitting inhabitants to lead good lives together”.

Mark projected himself both cognitively and emotionally into this ESIF. He “saw himself doing this in the future” because that matched his skills and experiences, but also because that was consistent with the narrative logic of his life course. From his point of view, it was a way of being the rational person, open to society and the world, to politics, history and sociology, while being in a reassuring, realistic and strategic logic as regards employment, in accordance with the conventions and expectations of those around him: a professional expectation altogether in line with his career and enriching it.

But in the course of the dialogue, this form—even though it had been conceived in the logic of dual reflexivity as a possible projection into the future—was set against Mark's deeper questioning about his intrinsic motivation: Is that really my personal choice? Am I not reproducing my parents' life that, for sure, I do not want for myself? The routine and daily-round of an orderly, conformist and dull life, with neither any adventure, any question, nor any travel?

As we'll now see, during the subsequent dialogues and narrations about other life spheres, Mark designed another competing ESIF on the basis of the shifts produced by the dialogue's trine reflexivity. This reflexivity, in conjunction with the doubt about this first ESIF, created the dynamics of this new elaboration.

Mark's Construction of a New Expected Subjective Identity Form (ESIF) In the course of the second and third steps of the dialogue's third enquiry (see Table 12.1), Mark described some of his extra-professional spheres of activities and particularly his participation in an amateur-theatre troupe. This narration led him to construct a dreamlike ESIF: If Mark did not have to compromise to make a living then he would engage in writing plays he would perform in a troupe he would direct.

Such an ESIF is both at variance and in systematic relationships with the previous one. Mark reported that he actually began his amateur-theatre activity at the same time as his job in the bank. An analysis of his narration about himself in the theatre setting showed the multiple proximities (overlapping and embedding) with his professional sphere, as regards the subjective identity frames that in both case he activated and updated on the occasions of his narrations.

The relationships to oneself fell within a spirit of creation and were linked with the pleasure to make people laugh: "It is something that I always have liked to do"; "I like to play to the gallery and make people have fun"; "Improvising makes me a little more scared."

The relationships to others were fundamentally fun and camaraderie: "I think we are a gang of kids"; "What I feel is solidarity: a pal atmosphere".

The content of the activity (Mark's relationships to actions) nevertheless required rigor and a solid commitment—as in the professional setting—especially to writing: "I like writing ..."; we must "write sketches on topical issues and prepare them in advance".

Eventually, the relationships to the object "theatre" referred to a strong subjective and emotional investment: "the goal is always the making of humour"; "It's something that is important to me whether writing or being on stage, I could not say why, I feel elated... I think it fits me"; "we are very close to the public [...] and it is a moment of sharing [...] it is very alive".

During the dialogue, Mark explained that this expectation (this ESIF) was closely linked to a 10-year experience, when he was an adolescent (between the ages of 10 and 20). He used to participate in a scout movement. In this association, a certain rigour and discipline were developed, as well as a strong sense of mutual help and camaraderie and direct relationships with nature. He learned then resourcefulness and the meaning of command, respect and hierarchy. This experience provided Mark with two founding dimensions of this second ESIF, which made him dream.

The first dimension was related to his writing activity. On the occasion of his solitary night guards at scout camps, during which boredom prevailed, Mark used to write humorous notices on the guard notebooks aimed to make the next guards laugh and to help them keep the boredom at bay. Mark made an immediate connection between his past and current sketch-writing activities. The second dimension was about Mark's relationships to others. In his scout group there was a prominent figure: a scout leader who was a role model for Mark. Although the scout movement was Roman-Catholic, this leader was Jewish. As such, he represented an example of diversity and nonconformity for Mark: someone who was not stuck by the usual clichés and the ready-made ideas. Mark described him as a person who had a great intellectual elegance and displayed a critical distance and a fresh look at things. If he seduced Mark so much, it is because he matched in a very acute way with the core issue of his second ESIF: to anchor my career in a personal choice, in my own desires and not in the conformist expectations of my family context.

This was confirmed during the last dialogue when Mark answered some questions designed by Savickas (2011) for his career construction interview. On this occasion, Mark explained why the heroes of two novels—Arsène Lupin and Bob Morane—were congruent with the core issue of his second ESIF.¹ According to Mark, each of these two characters is double as was the scout leader: Bob Morane is an adventurer, half avenger and half spy. Arsène Lupin is a gentleman thief, with a big heart, who does good around him.

Such duality also emerged during LCDD with the contrast between the reassuring conformist SIF of “housing designer and manager” and the risky non-conformist one of “theater writer, actor and manager”. As his heroes, Mark would certainly have hoped holding together the two sides of the person they were. This gap is also produced by the trine reflexivity, which exerts tensions within the system of SIF manifested by the dialogue, and which also stimulates the counselee to engage in processes of decision making. This means that he/she also needs to weight the emotional and affective commitment respectively required by each of his/her ESIF.

Outcome and Mark’s Commitment to Achieving an ESIF The two ESIF constructed during the dialogues were enshrined in a system of tensions that characterised Mark’s core personal query. His two ESIF were not completely at odd, as for Mark, work was a place “where you must wear a suit in the proper sense”, “where you must pretend...” Nevertheless, the choice he had to make for finding work “without making a mistake” was structured in his mind to form a tension between a reassuring—but potentially boring—commitment, versus a more personal and thought-provoking—but also riskier—one.

At the time of the first meeting, Mark had resigned from his job. Between the second and third ones, he had gone for a job interview. When he came for the last one, he told the counsellor that, as a consequence of this interview, he was hired as “Business Development Manager” in charge of land acquisition and development of big real estate projects. This was in all respects congruent with the first ESIF he valued as it reassured him and was consistent with his experience. Mark said he was very happy with this outcome. But how did he solve his identity tension?

According to him, the dialogue helped him to reconstruct a unifying meaning that was congruent with his different expectations. New meaning was thus given to the theatre ESIF, so as to articulate it with the real estate one:

Doing theatre ... it is working on oneself for feeling more comfortable to talk to others and for learning to work with others...”; “my goal is to be original and not to remain in a basic humour where everyone knows very well what the person on stage is going to say [...] And as a consequence, at work, it is in the less intentional moments, when I feel freer to do it, that I like to make the gallery laugh. It is done step by step... in the interweaving of the learning of uses at work and the continuing of theater.

¹ Arsène Lupin is a fictional thief created by Maurice Leblanc, whose books were very successful during the twentieth century. Bob Morane is the main character of a series of about 200 adventure books, intended mainly for teenagers, written by Henri Vernes.

Mark explained clearly the processes of constructing such new meanings during dialogue, formalising it gradually as we noted information on the paper sheet. Thus, he clearly illustrated the combination of the two types of reflexivity when he compared exploring life areas to weaving a “spider’s web”:

a spider’s web, yes that’s important ... (...) and it’s true that, straightway you feel that really, you’re weaving something and ... and therefore you need beams, load-bearing walls dare I say ... and for all that, things stay in place and are well connected (...) then, maybe automatically, I wanted to look for elements that would allow me to connect all that together ... (...) since I mostly try to find connectors between each area ... (...) it’s once you see things appearing that you start intensifying your quest to move on (...) in the discussions during the sessions... that allows you to sort things out and insist on what’s personal to you.

Conclusion

As illustrated by Mark’s example, LCDDs are processes of making—by counselees—meaning out of their lives, based on their narratives of events, experiences, activities or significant roles of their existences. One point must be emphasised: this process’ dynamics originate in the counselee’s inner dialogue. The purpose of the dialogue with the counsellor is to initiate such internal dialogue, to stimulate it and to define certain deadlines, that is to say to determine times when the person will have to pause in his incessant internal dialogue and to make a point about his/her reflections. The inner dialogue continues between meetings with the counsellor. It usually extends by actual dialogues of the counselee with relatives or other people. These other actual dialogues are often intended to discuss—and if possible to validate—the provisional conclusions sketched by the person’s inner dialogue and that he/she has with the counsellor.

We can also interpret the fact that Mark went to a job interview, between his first and second meeting with the counsellor, for a job that corresponded—in his view—to the ESIF he had constructed during the first meeting, as a willingness to test the strength of this first conclusion. It is a little bit as if he had said to himself: “If I manage to be recruited, this will prove that this professional commitment is the future perspective that gives meaning to my life.” As we have seen, Mark was indeed internally split. His narratives of his life experiences design two basic guidelines: on the one hand, that of the brilliant law student who had immediately found a job in the bank after graduation and, on the other hand, that of the writer-actor of small comic plays, dreaming of becoming the director of a professional theatre troupe. The purpose of Mark’s dialogue was thus about the production of a synthesis—valid for at least a certain time—allowing him to unify these two lines. He succeeded by a double movement of thought. On the one hand, he constructed an intimate representation (Guichard 2011) of the job he was going to get into: an intimate representation that made him conceive this job as a kind of creative architectural activity at the service of the public. On the other hand, he decided to continue his amateur-theatre activities that he perceived then as allowing him to develop skills that were useful for his work.

All counselees are not as split about their future intentions as Mark was. But all of them report a diversity of experiences and events—past, present, and sometimes hoped for—anchored in their long-term memory in the (hypothetical) form of subjective identity cognitive frames forming a system (which constitute the non-conscious cognitive substratum of the person's subjectivity, which is described as a dynamic system of subjective identity forms). The person's entering into a dialogue with him/herself about these personal experiences and events implies an activation-updating of the different subjective identity cognitive frames forming the memory base of his/her current narratives. These cognitive frameworks are not simply activated. They are told in a certain context, in a story addressed to several listeners (in particular to the counsellor, but also and especially to the person him/herself who is telling today this story), a story that refers to different subjective identity cognitive frames and which, as a result, produces cognitive and emotional links between them.

This multi-referred and multi-addressed narrative, stimulated by the particular relationship of a counselling dialogue, produces an overhaul of some of the person's subjective identity forms and of the system they form (and, in all likelihood, in the person's long-term memory: of his/her system of subjective identity cognitive frames). These overhauls are notably manifested by the emergence of an (or some) ESIF. Such observations tend to confirm the synthesis of the contemporary approaches to self-construction summarised in the first part of this chapter: human individuals appear as being both plural (each of them made of a plurality of modes of relation to self, to others, to objects, etc., which are functions of his/her positions in the contexts in which he/she interacts and dialogues, and of ways of conceptualising or symbolising the various occurring phenomena) and, at the same time, as seeking to give coherence and unity to this diversity (coherence and unity from the perspective of a certain personal future appearing to them as desirable, given precisely their way of narrating their various experiences).

In a general way, LCDDs allow counselees to construct future prospects by which they give meaning to their existence (for a synthesis of results: see Pouyaud et al. 2016). Like other approaches stemming from the life designing counselling movement, they appear to be well adapted for coping with issues of directing their active lives as they are expressed by the individuals of the modern liquid societies (see Savickas and Guichard 2016). However, it is questionable whether such counselling interventions suffice for preparing people to face the current major global crises (e.g., demographic and environmental ones, growing inequalities in wealth distribution, persistence of non-decent work conditions). Therefore, a new question arises: how to transform life-designing counselling so that such interventions help all counselees to place at the core of their reflection the moral imperative derived from the reflections of Hans Jonas (1984) and Paul Ricoeur (1992): “to live well, with and for others, in fair institutions, to ensure the sustainability of a truly human life on earth”.

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Chapter 13

Back to the Future: Child Career Development



Mark B. Watson and Mary McMahon

Abstract This chapter considers the need to revisit the career lifestyle of childhood within the conceptualisation of career development as a lifelong process inclusive of all life stages. After an initial description of established theories of child development and child career development, the influence of psychosocial, cognitive and sociocultural child development theories on child career development theories is discussed. Two established theories of career development in childhood are presented, Super's lifespan-lifespace theory and Gottfredson's circumscription and compromise theory. The chapter then considers emergent theories of child career development, specifically Howard and Walsh's Conceptions of Career Choice and Attainment model that describes three approaches to children's reasoning and Savickas's Career Construction Theory. A critical overview of research on child career development demonstrates the limitations of such research to date. The chapter then discusses how career development interventions can stimulate intentional career development learning in children. The lack of recursiveness between career theory, research, practice and policy in the child career development literature is identified and the chapter concludes by considering the way forward in this regard.

Keywords Child career development · Career development learning · Career intervention

You are never too young to think about what you want to do. (Grade Four Boy)

The career development of children is a re-emergent focus in career psychology that needs to be considered against the historical progression of career theory, research and practice over more than a century; career psychology reflects the his-

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torical contexts in which it was developed. Since its most widely recognised foundation with Frank Parsons's (1909) book, *Choosing a vocation*, at the start of the last century, career psychology has responded to the changing times in which it has been theorised, researched and practised. For instance, for much of the first half of the last century career psychology was focused on an analytical perception of career choice (in which career choice could be quantified in terms of traits and factors), with a consequent emphasis on the role of testing in the career choice process. Career psychology was all about making a choice, with a resultant skewed developmental focus on adolescents and adults (Porfeli et al. 2008).

This predominant focus on these two life stages was challenged by a gradual movement towards conceptualising career choice as a developmental process rather than a developmental point in time event (Ginzberg et al. 1951; Super 1953, 1957; Tiedeman and O'Hara 1963). By the latter part of the last century this developmental focus had expanded into a lifespan-life space theory (Super 1990; Super et al. 1996). Further developments in career psychology in recent decades have seen a succession of new theories or a refinement of extant theories, all of which implicitly or explicitly recognise that career development is a lifelong process inclusive of all life stages (Watson and Stead 2017).

Yet despite the influence of career developmental theories for over half a century, child career development, where the upper age limit is widely accepted as 14 years (Watson and McMahon 2017a), has received limited attention. It has been broadly described within lifespan theories, formed a minor focus in the career research literature, and it has not received a specific, detailed focus in the career intervention literature. Thus, Watson and McMahon (2017b) describe the status of child career development as "a story of an orphaned stage of the lifespan" (p. 1). Further, where child career development has received attention, its theoretical conceptualisation is diverse with most research describing a wide variety of theories that are not specifically constructed to explain child career development. In the most recent review of the literature, Oliveira et al. (2017b) identify the use of 20 theories to describe child career development. The most prominent of these were the theories of Gottfredson (41% of the literature reviewed) and Super (24% of the literature reviewed), thus reinforcing the predominant role these two established theories of child development continue to play in the literature. These two theories are described in the next section of the chapter. Common to such established theories is their description of child career development as a "launching point of an enduring process of vocational development" (Hartung 2015, p. 90). Established theories of child career development also reflect the historical times in which they were developed and in which children developed (Watson and McMahon 2017b).

Is there a need to revisit the life stage of childhood in order to understand the future career choices of adolescents and adults? Watson and McMahon's (2017b) viewpoint that the foundational life stage of childhood is where career development begins is widely supported in the literature. Others have argued that understanding child career development provides us with a more holistic understanding of lifespan career development (Hartung et al. 2005; McMahon and Watson 2008; Watson and McMahon 2005). Indeed, it has been argued that maladaptive career behaviour in

later developmental stages has its roots in earlier career development. Thus, Hartung et al. (2008) argue that a lack of curiosity with its resultant limited career exploration can lead to foreclosed career decisions in adolescence. Similarly, Watson and McMahon (2008) believe that adolescent career development is often limited by stereotypical career awareness and exploration in childhood.

Established Theories

To understand childhood career development theories we need to consider their roots in child development theories, with the latter describing the critical concepts of developmental tasks in specific phases of child development, as well as the role of curiosity and exploration (Watson and McMahon 2007; Watson et al. 2016). Prominent child development theorists that influenced theories of child career development are Erikson (1963, 1993), Piaget (1977) and Vygotsky (1987). Five of the eight life cycle stages of psychosocial development proposed by Erikson relate to childhood in general, while the fourth stage of Industry versus Inferiority (6–12 years) relates specifically to the development of work habits and skills. Similarly, three of the four stages of cognitive development proposed by Piaget relate to children under 12 years of age. Together these stages describe how children initially have difficulty in differentiating fantasy from reality, how they learn through the observation of role models, and how they gradually become more realistic in their thinking.

Implicit in the theories of Erikson and Piaget is the role of learning in child development. Vygotsky's (1987) socio-cultural theory makes such learning explicit. Vygotsky identifies three types of learning that are evident in children's development: imitative learning (for example, through play), instructive learning (for example, through teachers and other adults), and collaborative learning (for example, through family members and classroom experiences). As we shall see, later child career development theories have focused more on unintentional learning, and on *what* a child learns, than on *how* learning takes place (Watson and McMahon 2007; Watson et al. 2016).

Donald Super's (1990) refinement and research of his original theory conceptualises an individual's lifespan as progressing through successive stages, the first of which is Growth. Growth describes children's career development through to 14 years and has four substages: Curiosity (birth to 4 years), Fantasy (4–7 years), Interests (7–11 years), and Capacities (11–14 years). Throughout the Growth stage of career development there are nine career developmental dimensions: information, curiosity, exploration, key figures, interests, locus of control, perspective, self-concept, and planfulness. Super also identifies four developmental tasks of child career development: becoming concerned about the future, increasing personal control over one's life, convincing oneself to achieve in both school and work, and acquiring competent work habits and attitudes (Super et al. 1996). The development of a vocational self-concept is the prime goal of children's career development.

Super's theory is an example of how career development theories describe childhood as a foundational stage in the lifespan but do not provide validation for such a description, nor do they meaningfully relate this life stage to successive stages of the lifespan. Thus, Trice and Greer (2017) argue that "while Super acknowledged that some career development occurs in childhood, he did not pay particular attention to what it was" (p. 14).

Linda Gottfredson's (1981, 2005) theory of circumscription and compromise does pay attention to child career development and is research-based. Further, while other established career development theories define the child's self-concept in psychological terminology, Gottfredson describes early career development in terms of a social self-concept. Gottfredson's theory of children's cognitive career development focuses specifically on occupational aspiration development. The theory consists of four orientation stages: size and power (3–5 years), sex roles (6–8 years), social valuation (9–13 years), and an internal, unique self (14 years and older). Gottfredson describes two processes that occur over these four orientation stages: circumscription and compromise. Circumscription describes the process in which children eliminate occupational aspirations as they develop, initially on the basis of gender and later on the basis of social status. Compromise is the subsequent process in late childhood and early adolescence when choices are made from the preferred occupational aspirations.

Both Super (1990) and Gottfredson (1981, 2005) recognised that there is a recursive relationship between children's career development and the socio-cultural and environmental contexts in which such development takes place (Watson et al. 2016). However, emergent theories of child career development have focused to a greater extent on these contextual factors and their influence. It is to these theories that we now turn.

Emergent Theories

You don't have to choose a job that your mom says you have to. (Grade Three Girl)

The recognition of this eight-year-old girl that others can influence her career choice is reflected in emergent child career development theories that emphasise the large number of systemic factors that can impact on a child's career. There are two types of emergent theories of child career development. The one type is the development of a new theory of child career development. The second type is the reformulation of established theory or the application of more recent, broader career theories to child career development.

New theories of child career development have been thin on the ground. Indeed, there has only been one theory since the millennium, Howard and Walsh's (2010, 2011) Conceptions of Career Choice and Attainment (CCCA) model describes and researches a six-level model of how children's reasoning about careers develops

over time. The highest level of this model describes the systemic interaction between children and their environment (Howard et al. 2015, 2017). The CCCA addresses an identified criticism of established theory and research on child career development in that it focuses on *how* children conceptualise critical career developmental processes rather than on *what* children learn.

There are three approaches to reasoning identified by the CCCA: Association (younger elementary school children), Sequence (upper elementary school children), and Interaction (adolescents). The first two approaches are discussed given this chapter's focus on children. In the first approach of Association, Imagination and Fantasy stimulate the child's thinking. Within this approach children's thinking moves from a first level of Pure Association in which they recognise the existence of careers to a second level of Magical Thinking in which children recognise that there is a method for choosing a career but do not understand how that method works. The second approach of Sequence begins when children are able to realistically identify their interests, thus moving beyond Imagination and Fantasy. At level three, External Activities, children are able to describe the activities and skills needed to secure a career, while in level four, Internal Processes and Capacities, children begin to match their interests and abilities to job requirements. Howard and colleagues believe that the CCCA is complementary to established child career development theory and that it provides a particularly useful framework for the structuring of career interventions.

The second type of emergent child career development theory involves the reformulation of established career theory. A prominent example of such a theory is the reconstruction of Super's lifespan life space theory as Career Construction Theory (CCT; Savickas 2002, 2005). Specifically, Hartung (2015) believes that CCT provides a way of understanding and encouraging critical life design goals in childhood: the shaping of interests, capacities and aspirations; the adaptability to cope with changes in the self and the context in which the self develops; the ability to narrate a coherent story; and the ability to ascribe meaning to both activities and experiences. Thus Hartung (2017) argues that childhood is a critical foundational stage of CCT, that it forms the "opening act for constructing a career ... it is a warm-up, of sorts, for the acts to follow during adolescence and the subsequent periods of emerging and full-fledged adulthood" (p. 24). CCT believes that the early foundational stories of childhood lead to a narrative identity which grows in complexity in adolescence and adulthood.

CCT's belief that children come to an understanding of themselves and their surrounding environment through the stories they tell is reinforced by McMahon and Watson (2017) who suggest that storytelling and a narrative perspective could be important in understanding how children construct their career identity. Despite the logical connection of narrative approaches and children's storytelling, McMahon and Watson argue that "the voices of children are still not heard" in career development theory and that, as a consequence, "comprehensive stories of identity construction in childhood have not been told" (p. 65).

Research Reviews

It is beyond the scope of this chapter to report on what research has established about child career development. There have been seven reviews or analyses of such research in the last 12 years and their recommendations are analysed in this section of the chapter. As will become evident, there is consensus that child career development research is limited in several ways. One limitation that has been acknowledged for over 50 years is the lack of a substantive body of research (Borow 1964; Vondracek and Kirchner 1974; Watson and McMahon 2004; Watson et al. 2015b). Watson (2017), for instance, reports that the percentage of journal articles in the career literature that have focused on child career development has remained at the same low level of 3% for the past two decades. There are concerns too about the limited nature of the research. Several authors have commented on its lack of depth and cohesion (Oliveira et al. 2017a; Watson and McMahon 2004, 2008). Others have criticised research as remaining lifespan limited in that it predominantly focuses on adolescents and adults (Hartung 2015; Watson and McMahon 2008). There is also concern that research on child career development has a skewed focus on intra-individual influences such as age, gender and interests (Bakshi 2017; Watson et al. 2011). This is particularly evident in the predominant focus on children's occupational aspiration development (Flouri et al. 2017).

Two foundational reviews of child career development (Hartung et al. 2005; Watson and McMahon 2005) have been published. Common to both reviews was a qualitative concern about the focus of the research with a call for a greater emphasis on the underlying processes of child career development, that is for research on *how* children learn about careers rather than on *what* they know. Both reviews identified the need for a holistic, lifespan perspective that considers how children's career development relates to other lifespan stages. This lack of a holistic perspective was attributed by Watson and McMahon to an excess of diversity (in methodology, measurement and conceptualisation) within a limited body of research.

Further reviews and analyses appeared towards the end of the last decade (Porfeli et al. 2008; Schultheiss 2008; Watson and McMahon 2008). A common theme was the endorsement of persistent concerns expressed over the decades. Of particular concern was the lack of inter-relatedness between theory, research and practice, and the consequent lack of an organised framework for understanding child career development. Contributing to this segmental perspective of child career development was the predominance of cross-sectional rather than longitudinal research, and the lack of research on diverse populations of children.

Watson et al. (2015a) reviewed articles in a special issue on child career development and concluded that this literature remains a minor focus in the broader career literature. These authors suggested six possible directions for future research. Three of these reflect earlier proposed agendas: the need for international collaborative research, the need to encourage recursiveness between theory, research and practice, and the need to broaden the sample base of children. The other three directions suggested a greater focus on younger children, the use of action research in order to inform practice, and the need for research that can inform policy.

In their review of 34 journal articles published between 2008 and 2015, Oliveira et al. (2017a) expressed similar concerns to those of preceding reviews and analyses. Additionally, these authors critiqued the divergent definitions of childhood which, as a consequence, blur the developmental boundaries of childhood and adolescence. They were also concerned about the lack of clear definition of critical career constructs, as well as the over-reliance on established and even historical career theories. The Oliveira et al. review demonstrated how research on child career development perpetuates the limited focus of earlier research. For instance, these authors established that 68% of the research reviewed was quantitative in nature and 85% was cross-sectional. Further, children's aspirations and expectations remained the major research focus and 85% of the research focused on intra-individual variables. Oliveira et al. concluded that the field of child career development still "continues to be in an emerging state" (p. 83).

Two themes that emerge from research reviews and analyses are worth considering. One is Hartung's (2015) summation that research to date unequivocally demonstrates that career development begins in childhood. The other theme is the consistent (and indeed persistent) setting of a research agenda for child career development. With regard to the second theme Watson and McMahon (2007) identified four issues requiring exploration in the literature: the application of career theory, the processes of career development learning, the similarities and differences between child career development and other career development life stages, and the effectiveness of career development interventions that encourage intentional career development learning. To date, these issues remain current.

Practice

There are like thousands and like millions of jobs out there that you can choose from.
(Grade Three Boy)

This comment from an elementary school child reflecting his growing awareness of the career world was made at the conclusion of a career development intervention. There is consensus in the literature on child career development that childhood is a logical time to encourage career development learning (Porfeli and Lee 2012). It is a stage in the career development process that is devoid of future pressures such as the need to make a career decision, a stage in which there is time to explore a wide variety of future possibilities (Porfeli et al. 2013). Providing career development interventions for children introduces a process of intentional career development learning that can complement the unintentional career development learning that occurs through children's vicarious learning (Watson et al. 2016).

Lapan et al. (2017) identify two critical phases within childhood where career interventions could make significant impact. The first transitional phase (6–11 years) is a time when children become increasingly aware of careers, begin to develop expectations about their future, and initiate career exploration activities. These

activities become more intentional in the second transitional phase (12–14 years) as children relate their educational goals to future career planning. By transitioning through these two developmental phases, children establish a foundation for more proactive career development in adolescence.

Despite the evidence earlier in this chapter that children begin the career development process as early as their preschool years, Porfeli et al. (2013) note that few intervention programs are available for children. They suggest that this could be attributed to the perception that career developmental tasks are more appropriate for later career developmental stages such as adolescence. Yet career intervention in childhood remains a persistently identified need in the literature. Lapan et al. (2017) suggest, for instance, four intervention practices that schools could implement to assist children in the two transitional phases they identified. On a broader systemic level this could involve children's parents and family, or the integration of career interventions within the broader academic curriculum. More specifically, they suggest guidance curriculum for classroom activity, as well as creating individualised learning plans.

There are several national efforts that propose career intervention activities at the elementary school level as part of a comprehensive lifespan developmental blueprint framework for career learning. It is beyond the scope of this chapter to describe the content of these Blueprint frameworks; however, Howard et al. (2017) have identified four goals from three of these national initiatives (America, Australia and Canada). These goals focus on: the what of career knowledge, the how (or process) of career development, the application of knowledge gained and processes learned, and a reflection on and consequent refinement of the three preceding goals. The present authors do not consider a discussion of career intervention in childhood as a discrete topic, for this would reinforce the concern in the literature that there is a “persistent disconnect between what theory proposes and what practice dictates” (Crause et al. 2017, p. 186). This disconnect also relates to research and policy and, to be fair, reflects a concern within the broader discipline of career psychology that the recursive nature of theory, research, practice and policy is insufficiently addressed.

How then can child development, child career development and learning theories inform career intervention practice? There are several issues to consider here. At the broadest level is the fact that these theories endorse career intervention practices as appropriate for young children. More specifically, they provide theoretical guidelines and a framework for career intervention programs, particularly in making self-awareness the goal of such interventions rather than the developmentally inappropriate goal of decision-making. For instance, a theoretical focus on career development learning could assist in bridging the acknowledged gap between career theory and practice (Watson and McMahon 2007), particularly as learning theory places the child as central in the learning process. Howard et al. (2017) provide an excellent example of the potential to recursively interact theory and practice when they consider objectives for career interventions in relation to the three approaches of their CCCA theory.

Research on child career development can also inform the development of career intervention programs. The lack of adequate research is clearly evident in the literature. Thus, while acknowledging the importance of career interventions in childhood, Tracey and Sodano (2017) state that “the field currently does not have the research base to enable this set of valid interventions” (p. 139). Similarly, Watson et al. (2015a) call for the evaluation of career intervention programs for children in order to build an evidence base. How then can research inform career intervention practice? As with career theory, career research demonstrates that young children are able to learn about careers. There is research evidence to suggest that contextual factors would need to be addressed in children’s career intervention programs, that career awareness may be limited by circumstances, that children may lack a sense of personal agency, and that children need to identify and cope with contextual factors.

The recursive interaction of theory and research in the development of career intervention programs for children also needs to be considered in relation to policy development. In particular, there are two substantive points for policy developers to consider (Crause et al. 2017). The one is that career intervention programs need to expand their focus beyond the limited lifespan developmental stages where they are predominantly sited. More specifically, the traditional focus on adolescence needs to broaden to become more inclusive of children. The second point is that career intervention programs need to be developmentally appropriate, not only for different developmental stages but also for the individual developmental needs of children.

The implementation of career development practice at the elementary school level is still at an embryonic stage. Watson and McMahon (2007) argue that the literature on theory and research of child career development has had “little impact in practice on the provision of intentional career development learning programs, especially for children” (p. 14). The lack of rigorous development of career interventions for children remains a “missed opportunity” (Porfeli and Lee 2012, p. 20) at this point in time.

The Way Forward

You can learn and ... think what job is best for you while you are still young. (Grade 4 Boy)

Over half a century ago it was predicted that child career development would become an increasing focus in the literature (Borow 1964). How accurate has that prediction proved to be? Certainly, there has been a growing body of theory and research on child career development. Both McMahon and Watson (2008) and Hartung (2015) describe a more sustained focus on child career development. And yet, as pointed out earlier in this chapter, this focus has remained a relatively small percentage of the career literature over the decades. In the most recent review of child career development research, Oliveira et al. (2017b) established that only seven articles on child career development had been published in three top tier jour-

nals over the last 3 years, representing 2.8% of these journals' published articles over that time. Further, this low growth has raised qualitative concerns, particularly in terms of addressing the agenda set for the field over recent decades. This has led Watson and McMahon (2017b) to pose a challenging question: "How much has the growing focus on this earliest stage of lifespan career development enhanced our understanding of children's career development?" (p. 1).

It is a question that has been considered more recently in relation to theory, research and practice. For instance, Trice and Greer (2017) conclude their description of the status quo of child career development theories by calling for them to be revisited. A re-examination would require a reconsideration of their theoretical foundation, for child career development still needs to be better related to theories of child development (Hartung et al. 2008; Schultheiss 2008; Watson et al. 2016). There are other concerns about the present status of child career development theory. One persistent concern is that it is insufficiently related to other phases of the lifespan (Schultheiss 2008). Another concern is that descriptions of child career development lack a systemic perspective (Howard et al. 2015) and consequently are often decontextualised. In a sense child career development theory needs to become more adaptive if it is to reflect the constantly changing environments in which the child of today develops. Such theoretical adaptation also needs to consider individual differences, that children will evidence differential career development progress based on a wide variety of intrapersonal and systemic factors (Trice and Greer 2017). Finally, McMahon and Watson (2017) argue that the construction of a vocational identity in childhood is insufficiently understood and that a greater emphasis on narrative approaches would provide further insight. After all, stories are an integral part of childhood and children themselves are storytellers.

The concerns about child career development research are recursively related to the concerns about child career development theory. Thus, there have been suggestions that future research needs to focus more on theoretical constructs in an effort to encourage reciprocity between theory and research (Watson and McMahon 2017a; Watson et al. 2015b). To be fair, such concerns are generic to the discipline of career psychology. There are persistent concerns about the narrow and limited focus of research samples (Oliveira et al. 2017a). Bakshi (2017), for instance, warns that we cannot "overlay the picture of child career development obtained from developed world contexts on children in the developing world" (p. 114). Bakshi's description of the experiences of children in developing contexts as "suboptimal" (p. 114) reinforces the call for research to broaden its focus to a range of systemic influences on child career development that extends beyond the home environment, parents and the school to socioeconomic status, ethnicity, and the media. Despite this call, the most recent review of Oliveira et al. (2017b) demonstrates that child career development research still places a greater emphasis on individual factors.

An identified challenge for child career development research is that of assessment. Stead et al. (2017) are of the opinion that the difficulty in addressing proposed research agendas for child career development is that the "assessment tools necessary to conduct such research remains sparse" (p. 153). These authors criticise the single-question format used to assess complex career behaviours such as career

interests. Similarly, Tracey and Sodano (2017) state that the lack of valid measures hampers child career development research. The concerns of these authors about the need for age appropriate measures reinforce career psychology's emphasis on quantitative research whereas qualitative research may provide valuable insight on this somewhat poorly understood stage of lifespan career development.

Underlying the concerns about career intervention programs for children is the lack of recursiveness between career theory, research and practice (McMahon and Watson 2008; Watson and McMahon 2017a, b). There remains a trend in the child career development literature to discuss these three domains as relatively discrete; as such this prevents us from developing a dynamic understanding of child career development. In this regard, Watson et al. (2015b) suggest that action research would better inform the development of career interventions for children. Similarly, McMahon and Watson (2017) believe that narrative approaches and the use of stories could provide a creative synergy between theory, research and practice in the field of child career development. Building on the unintentional learning evident in children's stories could encourage the intentional learning experiences that career development interventions can provide.

Conclusion

Child career development serves as the foundation of lifespan career development. Firm foundations are prerequisites and predictors of the future. Child career development theory, research, practice and policy, however, as demonstrated throughout this chapter, may not provide the foundation that is needed to comprehensively understand and intervene in this important stage of lifespan career development. Similarities in the conclusions and recommendations of several reviews have set a future agenda that, if addressed, could result in a strong future for child career development.

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Chapter 14

Career Preparedness in Adolescents: An Overview of Empirical Research and Suggestions for Practice



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Abstract The present chapter provides an overview of the theoretical and empirical research on career preparedness among adolescents and derives implications for practice. We integrate various conceptualisations of career preparedness and suggest that career preparedness can be understood as a multidimensional construct consisting of attitudes, knowledge and competencies, and behaviours. Moreover, we summarise recent research on predictors and outcomes of career preparedness. Research on outcomes highlights that career preparedness is related to beneficial outcomes in various domains of adolescents' lives (e.g., work, education). Research on predictors demonstrates the relevance of personal factors (e.g., work-related attitudes and motivations) as well as environmental factors (e.g., career interventions) to foster career preparedness in adolescents. Finally, based on the empirical evidence discussed in this chapter, we develop suggestions and guidelines for practitioners on how adolescents can be supported in the process of career preparation.

Keywords Career preparedness · Adolescents · Career preparation · Career maturity · Career readiness

Work plays a central role in most people's lives, at least in western industrialised societies (e.g., Schwartz 1999). During adolescence, central developmental tasks focus on work and career-related issues, specifically on career preparation, that is, the process of becoming prepared for a career (e.g., Savickas 2002; Super et al. 1996).

As successful completion of any developmental tasks, also the developmental task of adequate career preparation has various beneficial implications for individuals. For example, adequate career preparation fosters well-being and positive future

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work experiences (e.g., Super et al. 1996); while insufficient preparation can impede well-being and adjustment through various vocational problems (Skorikov 2007).

Having said this, it is clear that career preparation is a relevant topic for researchers and practitioners, which is reflected by the fact that the topic of career preparation has stimulated considerable theoretical and empirical work, and that supporting adolescents in career preparation is an important part of career guidance in many countries (cf. Hartung et al. 2015).

The aim of this chapter is to provide an overview of the theoretical and empirical research on career preparedness among adolescents and derive implications for practitioners. We start with a definition of what career preparedness is, which is important as various concepts and theories do address career preparation among adolescents. We then summarise recent research on outcomes of career preparedness and discuss effects of career preparedness. We proceed with providing a summary of recent research on predictors of career preparedness and current findings on how career preparedness can be promoted. We then use the theoretical and empirical work discussed in this chapter to derive suggestions and guidelines for practitioners on how adolescents could be supported in the process of career preparation. The chapter ends with a short conclusion summarizing main findings.

What Is Career Preparedness?

No single theoretical framework of career preparedness exists, yet a number of existing concepts and theories do address what it means for adolescents to become prepared for a career. Dominant approaches to career preparation and development include the work of Super and colleagues on career maturity (Super 1955; Super et al. 1996) and the work on career readiness (Peterson et al. 2002; Phillips and Blustein 1994). More recently, researchers have begun to give attention to the terms preparation (Skorikov 2007) and preparedness (Lent 2013).

In this section, we provide an overview of the different theoretical frameworks that address the subject of adolescent career preparation. We then suggest that career preparedness could be considered as a multidimensional construct that incorporates a number of different aspects from existing theories.

Career Maturity

In his life-span, life-space theory of career development, Super (1977, 1990) proposed five developmental stages through which individuals pass through during the life-course in relation to their career development. Each of these five stages is accompanied by key developmental tasks. Integral to this theory is the idea that individuals need to display sufficient maturity to successfully manage the developmental tasks associated with each stage. Thus, maturity was defined as “the ability

to cope with the vocational or career developmental tasks with which one is confronted” (Super 1977, p. 294).

The developmental stage in which adolescence is situated is the stage of exploration that typically extends up until age 24. Here, adolescents are faced with the main developmental task of exploration which includes exploration of both the self and various occupations (Savickas 2002). Self-exploration requires that individuals gain insight into themselves in terms of their vocational interests, strengths, values, and abilities. Exploration of occupations entails the accumulation of information pertaining to occupational fields that one finds interesting and the necessary educational requirements to enter this occupation. The goal of this self and environment exploration is that of decision-making. Thus, adolescents need to engage in sufficient exploration to be able to make a well-founded career choice, and if they are able to accomplish this, they are thought to be sufficiently mature.

Maturity, according to Super (Super 1955; Super et al. 1996), and alternate conceptualisations such as the one provided by Crites (Crites 1971, 1973), consists of both attitudes toward and competencies for developing a career. Attitudes are concerned with feelings, subjective reactions, and dispositions that an individual has towards making a career choice. Competencies are more concerned with the cognitive aspects of choosing an occupation. Refinements to models of career maturity resulted in two main attitudes (i.e., exploration and planning), and two main competencies (i.e., decision-making competence and occupational information or knowledge) (Savickas 2002). Thus, adolescents should be particularly concerned with exploring and planning for their career choice, as well as developing their decision-making competence and gathering occupational information.

Career Readiness

Three main theoretical approaches to defining and conceptualising career readiness are presented here. First, it can be seen as a synonym for maturity in that some definitions of maturity refer to the readiness for making age-appropriate career decisions (Super et al. 1996). Second, the developmental processes of planning, exploring, and deciding are known collectively as career choice readiness (Phillips and Blustein 1994). Third, the cognitive information processing (CIP) theory adds a contextual perspective and defines readiness as “the capability of an individual to make appropriate career choices, taking into account the complexity of the family, social, economic, and organisational factors that influence an individual’s career development” (Peterson et al. 2002, p. 316). Similar to the competencies dimension of career maturity models, CIP highlights three key factors in making a career choice: self-knowledge, occupational knowledge, and decision-making skills (Peterson et al. 2002). Along with decision-making competence, CIP proposes that individuals need to deal with career problems, which have been defined as “a gap between an existing state of indecision and a more desired state” (Peterson et al. 2002, p. 315). As such, the theory proposes that individuals should develop problem

solving skills so that they can resolve these career problems and move towards certainty and clarity as this pertains to career decisions (Peterson et al. 2002). Lastly, the meta-cognitions of self-talk, self-awareness, and monitoring and controlling are required for the successful pursuit of self and occupational knowledge, and the application of decision making skills (Peterson et al. 2002).

Career Preparedness and Career Preparation

Many of the elements that appear in maturity and readiness models appear in conceptualisations of preparedness or preparation too. According to career construction theory, planning, decision making, confidence, and exploration make up the key aspects of career preparation (Savickas 2002). Similarly, Skorikov (2007) proposed that career preparedness consists of planning, confidence, and decidedness. He argued that these three elements represent certainty and commitment whereas exploration is characterised by uncertainty and was thus not included in his conceptualisation of preparedness.

More recently, in an attempt to supplement existing career models and theories, Lent (2013) proposed that preparedness could be a supplement to planning. He suggested that as individuals face less certain and more unstable professional futures, traditional planning (that focused more on stable aspects of the self and environment) may not afford individuals sufficient flexibility to cope with growing complexity (Lent 2013). He defined preparedness as “a healthy state of vigilance regarding threats to one’s career well-being as well as alertness to resources and opportunities on which one can capitalize” (p. 302). Building on social cognitive career theory (Lent et al. 2002), he suggested that preparedness might be particularly important in relation to barrier management and identifying support. Thus, in the exploration phase, adolescents should also be concerned with identifying potential barriers, considering the likelihood of encountering these barriers, and preparing coping strategies, while also looking to actively develop resources and identify sources of social support (Lent et al. 2002). In essence, preparedness should foster an individual’s capacity to be resilient and adaptable when facing unexpected career events.

One commonality that emerges across all the theories and models reviewed above is their shared focus on desiring to see adolescents develop their decision-making capacity to the point at which they are able to make a well-founded vocational or career choice. Thus, being decided, or reaching a state of decidedness emerges as a central aspect of career preparedness. To reach this state of being decided, individuals require sufficient self and occupational knowledge as well as decision making competence which are elements that were highlighted in early work on career choice (Parsons 1909). However, these elements are not the only aspects of career preparedness, a consideration we develop further in the next session.

Attitudes	Knowledge and Competencies	Behaviours
Career planning Career exploration Career (un)certainty Career decidedness / indecision Confidence Outcome expectations Decision making self-efficacy Career locus of control	Knowledge of decision making Knowledge of preferred occupation Knowledge of world of work Decision making competence	Self exploration Environment exploration Career planning Career preparation actions and behaviours (e.g., sought career support) Implementation of career information (e.g., start an educational program)

Fig. 14.1 Career preparedness as a multidimensional construct

Career Preparedness as a Multidimensional Construct

Based on a review of empirical research in adolescents and students, Johnston et al. (2019, under review) proposed that career preparedness could be considered as a multidimensional construct that includes career preparedness attitudes, knowledge and competencies, and behaviours (see Fig. 14.1). This conceptualisation of preparedness accounts for the key aspects that have been used in empirical research but that also emerge in the different theoretical approaches reviewed above. The use of this conceptualisation permits a holistic perspective on career preparedness that acknowledges that individuals may have strengths or weakness in any number of these aspects, which need to be addressed through career counselling guidance and interventions, as we will elaborate further below in the Practical Implications.

In what comes next, we will discuss the beneficial effects of high career preparedness, and thereby illustrate that career preparedness is a highly relevant construct for both researchers and practitioners.

What Are the Effects of High Career Preparedness?

Being well prepared for a career can have beneficial effects for various domains of adolescents' lives. In what comes next, we will address beneficial effects of career preparedness for (a) career-related outcomes, (b) academic outcomes, and (c) well-being.

Career-Related Outcomes

Research illustrates beneficial effects of career preparedness on various career-related outcomes. More precisely research has found career preparedness to be positively associated with favorable work attitudes, such as occupational and organisational commitment (Nägele and Neuenschwander 2014), as well as with satisfaction outcomes, such as satisfaction with the present career choice (Kleiman et al. 2004) or job satisfaction (Hirschi et al. 2014; Hirschi 2014).

Additionally, research indicates that adolescents higher in career preparedness have a clearer sense of their future career in terms of vocational identity (Cox et al. 2016) and occupational plans (Busacca and Taber 2002), compared to adolescents who are less prepared. Similarly, Patton and Creed (2007) investigated in a cross-sectional study the relation of high career preparedness with occupational status aspirations and expectations in Australian high-school students. Career preparedness included career decision-making self-efficacy, career indecision, as well as career maturity knowledge and attitude. The results showed that students' occupational status aspirations and expectations were both positively related to higher career maturity knowledge and career decision-making self-efficacy. Furthermore, students' occupational status aspirations were related with lower career indecision, and students' occupational status expectations were higher when students also possessed higher career maturity attitude.

Longitudinal evidence also supports the importance of high career preparedness for career-related outcomes in adolescents. Nurmi et al. (2002) investigated the effects of high career preparedness in Finnish adolescents on finding a job appropriate to their education over a time-span of 18 months. Career preparedness was assessed by the adolescents' occupation-related goal appraisals. The researchers found that the more adolescents put emphasis on their occupational goals, and the more they had a sense of progress towards their goals, the more likely they were to have found a job appropriate to their education and less likely to be unemployed after finishing a vocational school. Furthermore, career preparedness in adolescents has been found to be related to higher earnings in adult life (Ashby and Schoon 2010) and less resignation behaviour (e.g., ending employment) 5 years after graduation (Earl et al. 2011).

Academic Outcomes

Adolescents' academic and career development are highly interrelated (Kuijpers and Meijers 2012), which led researchers to investigate whether career preparedness would positively influence academic outcomes. Indeed, studies have found that high career preparedness was related to higher satisfaction with a university major (Tak and Lee 2003) and higher retention rates in majors, especially for majors that generally have high attrition rates like STEM majors (Belser et al. 2017). In addition, career preparedness has been found to positively relate to the academic performance of adolescents (Oliveira et al. 2017; Perry et al. 2010).

To illustrate, Oliveira et al. (2017) examined the effects of high career preparedness on Portuguese adolescents' grades. Career preparedness was assessed through adolescents' career exploration, career outcome expectations and career planning. The authors found that all of these facets of career preparedness significantly improved the adolescents' academic achievement.

Perry et al. (2010) similarly investigated in American high-school students whether career preparation had an effect on students' grades. The researchers defined career preparation as a latent construct represented by career decision-

making self-efficacy and career planning. The results showed that high career preparedness predicted the adolescents' grades, mediated through higher school engagement. In other words, adolescents who displayed higher career preparedness were more engaged in school, and as a consequence, received higher grades.

Well-Being

In addition to the positive effects of high career preparedness on career- and education-related outcomes, many studies have also found positive relationships between career preparedness and adolescents' well-being. Both emotional stability (Stringer et al. 2012) and life satisfaction (e.g. Kim et al. 2016; Jiang et al. 2017) have been found to be significantly and positively related with career preparedness. Furthermore, career preparedness has been found to have a significant negative relationship with anxiety, depression and somatic disorders in college students (Tak and Lee 2003). In particular, Skorikov (2007) investigated the effects of high career preparedness on well-being of American high-school students from grade eleven to twelve. The author defined career preparedness as a latent construct represented by career planning, career confidence, and career indecision. Several well-being outcomes were assessed, such as self-actualisation, life satisfaction, emotional stability, social adaptation, depression and anxiety. The results indicate that across measurements, adolescents high in career preparedness had higher social adaptation, emotional stability, life satisfaction, and self-actualisation. Additionally, depression and anxiety were inversely related to career preparedness.

Taken together, in this section, we have illustrated that high career preparedness has many important consequences for adolescents, in terms of their career and academic development but also in terms of general well-being. Nevertheless, we would like to highlight that empirical research addressing outcomes of career preparedness is relatively scarce. Instead, many researchers have focused on investigating which factors promote high career preparedness in adolescents, which we will discuss in the next section.

What Factors Promote High Career Preparedness?

Several theoretical approaches propose that personal factors originating within the individual, as well as contextual factors originating in the family, society, or the economy, can make it more or less difficult for adolescents to develop career preparedness (e.g., Peterson et al. 2002). In the next sections, we thus discuss contextual and individual factors that have been found in empirical research to be related to high career preparedness.

We thereby focus on factors that are of particular relevance for practitioners in the sense that they are malleable in principle. We do not discuss static and relatively

unchangeable factors that have been found to also relate to career preparedness, like demographic characteristics or personality traits (for an overview, see Johnston et al. 2019, under review).

Contextual Factors Fostering Career Preparedness

In the following sections, we discuss the importance of (a) career interventions and (b) social support from key others as contextual factors that promote career preparedness among adolescents.

Career Interventions

Career interventions are a prominent means to foster adolescents' career development including career preparation (cf. Hartung et al. 2015). Indeed, several career interventions have been shown to increase career preparedness (e.g., Hirschi and Läge 2008; Kiuru et al. 2011; Janeiro et al. 2014; Perdrix et al. 2012). In general, researchers have used various approaches and exercises in their interventions to increase career preparedness, such as improving self-concept knowledge (e.g., Janeiro et al. 2014; Hirschi and Läge 2008), exploring career options (e.g., Koys 2017; Perdrix et al. 2012), being able to deal with setbacks and obstacles (e.g., Vuori et al. 2008; Perdrix et al. 2012; Koen et al. 2012), and committing to an implementation plan (e.g., Obi 2015; Vuori et al. 2008). For example, Kiuru et al. (2011) ran a five-day intensive career intervention with 738 Finnish ninth-graders. During the course, the adolescents learned a multitude of skills, such as how to use resources in order to advance their careers; how to create concrete action plans to promote their educational career; identifying potential barriers and how to deal with them; and lastly, they committed themselves to their career plans. This career intervention was found to be effective for increasing adolescents' preparedness to deal with obstacles and career choice self-efficacy, at least when measured directly after the intervention, with small ($\eta^2 = .03$) and medium ($\eta^2 = .09$) effect sizes for preparedness to deal with obstacles and career choice self-efficacy, respectively.

Additionally, other career-related interventions, such as career education modules (e.g., Park 2015), peer counselling programs (Wong et al. 2016) and advisory mentoring programs (Wu and Chang 2009) have also been found to be effective in promoting career preparedness. For example, Talib et al. (2015) designed a 9-week college exploration module for Malaysian community college students, which provided content on career-related information and skills, and offered guided and supportive learning experiences. The module was highly effective in increasing the students' career planning, career self-efficacy, and career maturity, indicated by a large overall effect size ($\eta^2 = .95$) when considering a combination of the three career preparedness variables (i.e. career planning, career self-efficacy, and career maturity).

Lastly, research has also found that non-career specific interventions were effective in strengthening adolescents' career preparedness. Lim et al. (2010) found that a cognitive-behavioral group therapy positively affected career maturity attitude. Werch et al. (2008) found a health intervention to increase career preparedness in adolescence. These results once again show how closely well-being and career preparedness are linked to each other (e.g. Skorikov 2007).

Social Support

Not only formal career-support in terms of an intervention, but also social support in general (e.g., Hirschi et al. 2011; Rogers et al. 2008) and specifically parental support (e.g., Kim et al. 2016; Lee et al. 2013; for longitudinal evidence, see Bae 2017; Yon et al. 2012) have been found to be key elements to foster career preparedness among adolescents.

Keller and Whiston (2008) investigated in a cross-sectional study the relation between supportive parenting behaviours and career preparedness of American middle school students. More precisely, they investigated the effects of parental general psychosocial support and career-specific parenting actions on adolescents' career decision-making self-efficacy and career maturity. Parental general psychosocial support included parental behaviours like expression of interest in various teenage issues or expression of proudness towards the adolescent. Career-specific parenting actions included parental behaviours like helping the adolescent to understand results from a career test or informing adolescents about specific occupations or careers. The results showed that both types of parenting behaviours were positively related to children's career preparedness, although general psychosocial support provided by parents was even more relevant than career-specific actions, especially for children's career decision-making self-efficacy.

The importance of general parental support for adolescents' career preparedness is further corroborated by longitudinal evidence: Bae (2017) investigated in a sample of Korean adolescents how parental involvement in terms of how frequently parents were personally involved in various life domains of their children, was related to adolescents' career maturity from age 17 to 25. Results indicate that adolescents with more involved parents started with higher levels of career preparedness at age 17. At the same time, the effect of parental involvement on career maturity decreased over time, indicating that general social support from parents became less important for adolescents' career preparedness when adolescents grow older.

Overall, these findings illustrate that general parental support in terms of a family environment that is characterised by warmth and respect is highly facilitative of career preparation, and potentially is even more important than career-specific parental support, at least at relatively younger ages. At the same time, parents' career-specific support might become more relevant when adolescents grow older and face more immediate career decisions, such as choice of a university major or a vocational track (Keller and Whiston 2008).

Beside parental support, support from teachers or counsellors (e.g. Lapan et al. 2017; Perry et al. 2010), as well as peers (e.g., Lazarides et al. 2016; Lundberg 2014) is a relevant resource to foster career preparation in adolescents. For example, Perry et al. (2010) investigated in a cross-sectional study among American high-school students the relation between teacher support and students' career preparedness. More precisely, they investigated teacher support in terms of the extent to which teachers were invested in students, showed positive regard or emotional support, held high expectations for students, and were accessible for students. Students' career preparedness included students' career planning and career decision-making self-efficacy. As expected, the relation between teacher support and students' career preparedness was positive. Interestingly, teacher social support was even more strongly related to adolescents' career preparation than was parental social support (which was also assessed). This finding might be at least partly explained by the fact that not all adolescents have regular access to high-quality parental career support. Indeed, research indicates that lower socio-economic background in terms of lower household income and parental education can impede career preparedness (e.g., Bae 2017; Lee et al. 2013). Hence, for adolescents with less supportive homes, teachers might assume a particularly prominent position in their career preparation (Perry et al. 2010).

Individual Factors Fostering Career Preparedness

One way through which more distal factors such as career interventions and social support from key others can promote career preparedness among adolescents can be through their beneficial effect on more proximal individual factors. In the following sections, we discuss the importance of adolescents' (a) educational attainment and school achievement, (b) career-related attitudes and motivations, and (c) work experience as factors that promote career preparedness.

Educational Attainment and School Achievement

Educational attainment and school achievement are considered as important human capital factors that can facilitate career preparedness. Indeed, several studies found that higher school achievement or educational attainment was related to higher levels of career preparedness (e.g., Choi and Kim 2013; Hardré and Hackett 2015; for longitudinal evidence, see for example, Bae 2017; Creed et al. 2007). For example, Choi and Kim (2013) investigated the cross-sectional relation between self-reported academic achievement and career preparedness in terms of career decision-making self-efficacy and career planning among American and Korean students who majored in hospitality and tourism. They found that higher academic achievement

was related to higher career decision-making self-efficacy and career planning, especially among Korean students. The cultural difference in the strength of the relationship was at least partly explained by differences in motivation orientation between American and Korean students. More precisely, Korean students were more strongly motivated by intrinsic study factors such as enjoyment and challenge. Intrinsic study motivation in turn was more strongly related to academic achievement compared to external study motivation in terms of compensation and prestige. The importance of intrinsic motivation for career preparedness is further supported by longitudinal evidence indicating that also intrinsic work values are related to higher career preparedness (Hirschi 2010; Yon et al. 2012, see further below). In addition to work values, also other attitudes and motivations towards the world of work and careers are related to career preparedness—a point that we elaborate in more detail next.

Career-Related Attitudes and Motivations

Adolescents' career related attitudes and motivations can be important determinants of career preparedness. This is potentially because adolescents with more favorable attitudes towards the world of work and those who are more motivated towards working, invest more energy and resources in their career preparation. Indeed, work commitment in terms of how important work is in one's life, has been found to have a positive relation with adolescents' career preparedness. Patton and Creed (2002) found in a cross-sectional study that work commitment was positively related to career preparedness in terms of career maturity attitude and career maturity knowledge among Australian high school students. Also for Australian secondary school students, Creed and Patton (2003) found that students' work commitment was a main predictor of their career maturity attitude and knowledge.

In addition to work commitment, other career-related attitudes and motivations have been shown to foster career preparedness. These are career goals (Clair et al. 2017; Punch et al. 2005), career interests in terms of interest elevation and differentiation (Jaensch et al. 2016), or calling (Hirschi and Herrmann 2013). Moreover, work values can play a role in career preparation (Hirschi 2010; Yon et al. 2012). For example, Hirschi (2010) found among Swiss high school students that students who endorsed more intrinsic work values (e.g., who valued interesting work) showed a faster increase in career preparedness through grade eight compared to students who endorsed more extrinsic work values (e.g., who valued prestigious work). This finding might be at least partly explained by the fact that students placing greater importance on intrinsic work values have clearer and more specific reference points from which to evaluate different career options matching with their personal needs (Yon et al. 2012). Indeed, there is indication that also the perceived fit between occupational interest and occupational expectations has beneficial effects on career preparedness (Hirschi and Läge 2007).

Work Experience

Making real experiences in the world of work can be a way to foster adolescents' career preparedness for various reasons. First, work experience can sensitize adolescents to the need to make decisions about their future career, associated with an increase in career focus. Second, work experiences can expose adolescents to a wide array of people that may act as a resource in the process of career preparation (see above). Third, gaining (positive) work experiences can motivate adolescents to think about and prepare for their careers.

Indeed, several studies indicate that making real experiences in the world of work is a way to foster career preparedness (Lee et al. 2013; Talib and Aun 2009; for longitudinal evidence, see Creed et al. 2007; Wu and Chang 2009). For example, Creed et al. (2007) investigated among Australian high school students the relation between work experience and career preparedness in terms of career planning and career exploration from grade eight to ten. They found that increasing work experience from grade eight to ten was accompanied by an increase in career planning and exploration.

Although empirical evidence overall consistently shows positive effects of work experience on adolescents' career preparedness, some boundary conditions apply. First, the number of working hours might play a nonlinear role for how work experience relate to career preparedness in young people. More precisely, detrimental effects of work experience on career preparedness can occur when adolescents work overly long hours (e.g., Barling et al. 1995; Steinberg and Dornbusch 1991). This is likely due to the fact that these students lack the necessary energy for preparing their next career steps and for investing sufficient time and energy in schoolwork, while school performance and academic achievement are related with career preparedness (see above). Second, congruence of occupation with adolescents' career interests can play a role in the sense that work experience in an occupation that is congruent with adolescents' career interests is more beneficial for career preparation compared to work experience in an occupation that is relatively disconnected from adolescents' career interests (Luzzo et al. 1997). Finally, also cultural factors can play a role in how work experience affects career preparedness. For example, Yon et al. (2012) found a negative relation between having a part-time job and career preparedness in a sample of Korean high school students. This might be at least partly due to the fact that Korean students are usually encouraged by their parents and teachers to focus on school only, and, thus, it is uncommon for Korean adolescents to have a part-time job (Yon et al. 2012).

Practical Implications

The theoretical and empirical evidence discussed in this chapter has various important practical implications. A first implication is related to the proposed conceptualisation of career preparedness. More precisely, the multidimensional conceptualisation of career preparedness can foster a deepened understanding of what career

preparedness is and of what aspects it consists, which is essential for the design of effective career interventions. Indeed, the multidimensional nature of career preparedness can be used to guide the development and implementation of career guidance and counselling interventions that are focused on specific aspects of career preparedness (i.e., attitudes, knowledge and competencies, behaviours). Targeting specific aspects of preparedness means that career guidance and counselling techniques can be tailored to provide a more effective intervention and/or tailor the content of an intervention to the specific needs of intervention groups. For example, providing career-relevant knowledge and training career competencies might have large effects for one group of adolescents who largely miss such knowledge and competencies. Yet, another group of adolescents might already have developed sufficient career-relevant knowledge and competencies, and, thus, might mostly profit from an intervention targeting another aspect of career preparedness. This means that it could be useful to assess, prior to an intervention, the specific strengths or weaknesses in the various aspects of career preparedness in a target group, as it has been done for the assessment of other career constructs, like career resources (cf., Hirschi et al. 2018).

A further practical implication can be derived from empirical evidence illustrating that social support is a crucial resource that helps adolescents to prepare for their careers. This indicates that increasing opportunities for adolescents to receive social support should be a priority for people assisting adolescents with career preparation (e.g., teachers, career counsellors). Importantly, empirical research has demonstrated that general social support like showing empathy and understanding is at least as important as career-specific support. This means that teachers and career counsellors can use general social support behaviours (e.g., showing empathy, expressing pride) along with career-specific support as an explicit element in their classes or counselling sessions.

Moreover, practitioners in educational and counselling settings should ensure that adolescents also receive sufficient support from their personal relationships, especially from parents. A first step in this direction could be to assess the degree of social support adolescents receive from their parents. Then, if necessary, practitioners could include parents in at least some of the counselling sessions and help them understand that supporting their child in career preparation is important not only for the overall well-being of their children but also for their career development. Practitioners could even use career outcomes as a reason for encouraging supportive parental behaviours (Keller and Whiston 2008), like expressing interest, trust, confidence, and pride in their children.

In addition, counsellors could encourage adolescents to strengthen relationship with others from which support is also likely to occur, like extended family members, peers, or a mentor. Related to that point, schools could provide opportunities to develop such supportive relationships, like “lunch with favourite professor” (Walker et al. 2010) or through social activities in class to foster positive peer relationships. Specifically, group-oriented career interventions or mentoring programs could be a promising way to foster supportive relationships with a mentor and peers.

Research on the positive effects of educational attainment and school achievement on career preparedness has relevant practical implications, too, especially for teachers. More precisely, it suggests that teachers should pay particular attention to students who appear to be less connected to school (e.g., high absence, low school engagement) (Akos et al. 2004). These students are at risk of suffering low levels of career preparedness, which combined with the fact that they might also be poorer school performers, can have long-lasting negative implications for their careers. This suggests that teacher support increasing students' general education- and career-related motivations might be at least as important for students' career preparation as are specific career preparation activities (e.g., career choice interventions).

Another practical implication can be derived from empirical evidence illustrating beneficial effects of early work experiences on career preparedness. This body of research implies that schools and career counselling centres may consider including formal work experiences as part of school or counselling programs (Creed et al. 2007). Ideally, adolescents should be guided to make their first work experiences in an occupation that is related to their future career goals. This might be a way to foster their career preparedness through better knowledge about the preferred occupation and/or increased fit between occupational aspirations and expectations. Furthermore, for making work experiences most beneficial, adolescents should also be supported to find a sound balance between working part-time and meeting expectations in school, because overly long work hours can have detrimental effects on career preparedness due to decreased school performance.

Finally, yet importantly, the theoretical and empirical evidence discussed in this chapter can have implications for practitioners from other disciplines, like clinical psychologists who work with adolescents. More precisely, these practitioners could keep in mind that increasing career preparedness is one way to foster positive well-being outcomes (e.g., life satisfaction) and prevent negative well-being outcomes (e.g., depression) among adolescents. Hence, discussing career-relevant topics in clinical interventions and, if indicated, refer adolescents to a career counsellor, can increase overall well-being of adolescents, thereby also potentially increasing the effectiveness of clinical interventions.

Summary and Conclusion

The focus of this chapter has been on current empirical findings regarding career preparedness among adolescents and implications for practitioners on how career preparedness can be fostered. More precisely, we discussed existing concepts and theories that address career preparedness, and integrated these various conceptualisations by suggesting that career preparedness can be understood as a multidimensional construct consisting of attitudes, knowledge and competencies, and behaviours. Moreover, we summarised recent empirical research on outcomes of career preparedness and discussed beneficial effects of career preparedness for

various domains of adolescents' lives, that is, work and career, education, and well-being. The summary of recent research on predictors of career preparedness supports person-context conceptualisations of career preparation (e.g. Peterson et al. 2002), indicating that both personal factors (i.e., educational attainment and school achievement, work-related attitudes and motivations, work experience) as well as environmental factors (i.e., career intervention, social support) are important to foster career preparation in adolescents. Finally, based on the empirical evidence discussed in this chapter, we developed suggestions and guidelines for practitioners (e.g., career counsellors, teachers) on how adolescents could be supported in the process of career preparation. In conclusion, we are confident that this chapter provides new insights into career preparation among adolescents for researchers as well as practitioners and hope that this chapter is informative for the development and design of novel career guidance and counselling interventions.

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Chapter 15

The Career Development of Gifted Students



Jae Yup Jung

Abstract The focus of this chapter is on the career development of gifted students, a group whose exceptional abilities may mean that they have the greatest potential among the various student groups to produce achievements that have a substantial impact on others in society. After an examination of the unique set of issues that influence the career development of gifted students (e.g., areas of ability, personal interests and values, multipotentiality, perfectionism, a need for intellectual stimulation, expectations of others, career prestige, income, expectations relating to gender role, and living up to one's potential), attention is directed to the manner in which these highly capable students commonly approach their careers. Thereafter, the career aspirations of these students are discussed, including a repeatedly identified preference for traditional, unoriginal, and investigative-type careers that involve analytical, intellectual, and scholarly activities. The chapter concludes with a discussion of two career theories that may be among the most relevant to understanding the career development of gifted students (i.e., the theory of circumscription and compromise and the theory of work adjustment), multiple empirically verified models of the career decision-making processes of gifted students, and prospects for the career development of gifted students in the future.

Keywords Gifted · High ability · Career · Career development · Career decision · Career decision-making

A perception appears to exist in the general community that gifted students are able to pursue any career from the wide range of careers that are available, and that they require no particular assistance from others in the pursuit of such careers (Achter et al. 1996; Casey and Shore 2000; Chen and Wong 2013; Jung 2017). The small but

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emerging literature in the area nevertheless suggests that the career development of gifted students requires a substantial level of support in terms of counselling and guidance, which may need to be different to the support provided for other student groups (Chen and Wong 2013; Greene 2006; Jung 2017; Kerr and Sodano 2003; Maxwell 2007; Miller and Cummings 2009). Indeed, while there may not be a typical gifted student, certain unique and predictable patterns have been identified with respect to the factors that influence the career decisions, the manner in which the career decisions are approached, and the range of career aspirations, for gifted students (Greene 2006). Gifted students are a group worthy of special focus by scholars and practitioners alike in the fields of career development, vocational psychology, and gifted education, as their exceptional abilities may mean that they have the greatest potential among the various student groups to produce achievements that have a substantial impact on the work and non-work lives of others in society (Jung 2012).

Giftedness and Talent

Throughout the course of history, individuals who have demonstrated exceptional potential or achievement, at levels that are substantially greater than that for the rest of the population, have been the source of much fascination and admiration (Jung 2019; Missett and McCormick 2014; Subotnik et al. 2011; Tannenbaum 2000). A number of conceptualisations of this phenomenon, commonly referred to as “giftedness” and/or “talent”, exist today, ranging from those based solely on intellectual ability as assessed by instruments such as IQ tests (e.g., Terman 1925; Hollingworth 1942), to those that also acknowledge and incorporate other domains of ability, such as creativity and leadership (e.g., Marland 1972; Renzulli 1978, 1988), along with factors such as motivation, the environment, and chance (Gagné 2003, 2009; Subotnik et al. 2011; Tannenbaum 1986, 2003). Unfortunately, no consensus exists among scholars and practitioners in the field of gifted education on the *optimal* conceptualisation of the phenomenon.

From the perspective of understanding the career decisions and the career development of gifted students, the conceptualisation proposed by Gagné (2003, 2009) in his *Differentiated Model of Giftedness and Talent* may nevertheless be the most useful, as it appears to be the only widely used model that gives explicit acknowledgement to the future careers of gifted students (i.e., Holland’s [1997] RIASEC taxonomy of occupation groups forms part of the model). Unlike many other conceptualisations that treat “giftedness” and “talent” as synonyms, Gagné makes a distinction between these constructs, and considers giftedness to be the “possession and use of outstanding natural abilities, called aptitudes, in at least one ability domain to a degree that places an individual at least among the top 10% of age peers” (Gagné 2009, p. 63), while talent is considered to be the “outstanding mastery of systematically developed abilities, called competencies (knowledge and skills), in at least one field of human activity to a degree that places an individual at least among the top 10% of age peers who are or have been active in that field” (Gagné 2009, p. 63).

In essence, Gagné proposes that high level abilities (i.e., giftedness) in one of six domains (i.e., intellectual, creative, social, perceptual, muscular, and motor control) may be developed into high level achievements (i.e., talent) in one of multiple fields (including the realistic, investigative, artistic, social, enterprising, and conventional [RIASEC] occupational fields noted by Holland's [1997]) through a formal and informal developmental process that is influenced by intrapersonal factors such as motivation, and environmental factors such as the physical, social, cultural, and familial milieu. The inference in the *Differentiated Model of Giftedness and Talent* that meaningful achievements of gifted students may lie in various career fields, as opposed to exclusively educational fields, is one of its distinguishing features.

Issues in the Career Development of Gifted Students

The small but emerging literature on the career development of gifted students suggests that this group is likely to be influenced by a unique set of issues and factors in arriving at their career decisions, that may reflect their personal traits and characteristics (e.g., areas of ability, personal interests and values, multipotentiality, perfectionism, and a need for intellectual stimulation), and the expectations of others (e.g., expectations of family, expectations of society, the valuing of prestigious careers, the valuing of well-paying careers, expectations relating to gender role, and living up to one's potential).

Personal Traits and Characteristics

Abilities and Interests Among the factors that influence the career decisions of gifted students, their areas of ability and interest appear collectively to play central and pivotal roles (Jung 2019; Lubinski 1996; Lubinski and Benbow 2000). For example, Achter et al. (1999) indicated that the assessment of the cognitive abilities and the vocational preferences (which may encompass vocational values and interests) of gifted students may be two of the most important determinants of the future educational, vocational, and related choices of gifted students. It is noteworthy that an examination of only the ability or interest profiles of gifted students is considered *inadequate* in fully explaining the career decisions of this group, which is consistent with the perspective that there may be an interplay among abilities, self-beliefs, and interests in the career decision-making processes of non-gifted students (Lent et al. 1994). Interestingly, some studies have also suggested that unlike gifted students, non-gifted students may have a largely singular focus on the area of interest (Jung and McCormick 2011; Jung et al. 2011; Lubinski and Benbow 2000).

Some difference of opinion appears to exist about whether there is a tendency for an overlap between the areas of ability and interest among gifted students. For

example, Sparfeldt (2007) has noted that the correlation between the areas of ability and interest among gifted students tends to be moderate, usually not exceeding 0.40, while Lubinski and Benbow (2000) have suggested that, for most gifted students, the ability and interest constellations may align. In the situation where there is a conflict between the areas of ability and interest, Gottfredson (2003) has suggested that the area of interest may take priority, particularly among those students who possess strong abilities in verbal, mathematical, *and* spatial abilities that allow them to qualify for multiple jobs and careers.

Multipotentiality Multipotentiality is a controversial topic that has been given greater attention within the field of gifted education than in the fields of career development or vocational psychology. The phenomenon has been described variously as a combination of high levels of interest, ability, opportunity, and/or motivation in multiple areas (Jung 2018; Rysiew et al. 1994), although arguably the most common conceptualisation limits it to high levels of ability and interest only in multiple areas (Jung 2018; Rysiew et al. 1999). Substantial debate exists on whether multipotentiality is commonly observed among gifted students, and whether it is harmful to this group (Fiebig 2008). In situations where the phenomenon is assessed using very stringent criteria (e.g., high and even scores on tests of verbal and mathematical ability *and* an exhaustive list of vocational interests), scholars have tended to reach the conclusion that it may not be very common (Achter et al. 1996; Milgram and Hong 1999; Sajjadi et al. 2001). Nevertheless, some scholars have suggested that such an approach to understanding the phenomenon may be akin to the assessment of “equipotentialty” rather than multipotentiality (Gross 2006), and that a “looser” approach, which does not require equal levels of ability and interest in an exhaustive number of domains, may be more appropriate to acknowledge the multiple areas of ability and interest of gifted students (Jung 2013, 2018; Jung and Young 2017).

Traditionally, multipotentiality has been associated with difficulties in making the career decision, as high levels of ability and interest in multiple areas may mean that multiple careers are considered equally appealing (Achter et al. 1997; Leung 1998; Stewart 1999). Nevertheless, more recent studies have suggested that many gifted students may view their capabilities and interests in multiple areas in a positive light. For example, some appear to consider that they have the luxury of a wealth of realistic career options from which the career choice may be made, while others appear to value the opportunity, which is not available to others, to combine their many areas of ability and interest (Jung 2017; Jung and Young 2017; Sajjadi et al. 2001; Sosniak 1985).

Perfectionism Another characteristic that may be found among gifted students is perfectionism, which may be defined as the “combination of thoughts and behaviors generally associated with excessively high standards or expectations” for one’s performance (Schuler 2000, p. 183). A wide consensus appears to exist that it is a multidimensional construct. For example, Frost et al. (1990) and their associates suggest that it comprises the dimensions of (a) a concern over mistakes and doubts

about actions, (b) personal standards, (c) parental expectations and criticism, and (d) organisation (Harvey et al. 2004; Hawkins et al. 2006), while Hewitt and Flett (1991) propose that it comprises (a) a self-oriented dimension of high expectations for one's performance, (b) a socially prescribed dimension reflecting a perception that others have high expectations for one's performance, and (c) an other oriented dimension of having high expectations for the performances of others. Generally, the phenomenon is seen as an important influence in the manner in which gifted students make decisions, including decisions about their future careers (Chen and Wong 2013; Schuler 2000; Stewart 1999).

In broad terms, perfectionism may be manifested among gifted students in either an adaptive "healthy" form or a maladaptive "unhealthy" form (Dixon et al. 2004; Hamachek 1978; Jung 2013; Schuler 2000). Healthy perfectionists appear to approach tasks in a relaxed and confident manner, and with a desire for excellence, while unhealthy perfectionists tend to display a fear of failure, engage in task avoidance, and show excessive concern about their perceived deficiencies (Dixon et al. 2004; Jung 2013). Therefore, healthy perfectionists may approach the career decision by focusing on their strengths, while unhealthy perfectionists appear to experience substantial anxiety and stress, as they defer the career decision, experience career indecision, and acquiesce to the plans made by trusted adults, due to a belief that they must identify the one "perfect" career choice (Chen and Wong 2013; Greene 2006; Stewart 1999).

A Need for Intellectual Stimulation and Challenge In conjunction with their areas of ability, areas of interest, multipotentiality, and perfectionism, a number of scholars have suggested that gifted students may demonstrate a concern for the selection of careers that adequately cater to their needs for intellectual challenge and skill development (Herr and Cramer 1996). Indeed, Emmett and Minor (1993) identified a need for challenge, variety in activities, and continued learning to be among the most important factors that influence the career decisions of gifted students, while Jung (2014, 2017) has identified a strong and positive relationship between a desire for intellectual stimulation and the valuing of interest and enjoyment in the career-related thinking of gifted adolescents. Nevertheless, the selection of careers that allow for intellectual stimulation and challenge may not only reflect an inherent self-directed need of gifted students, as others have also been found to expect gifted students to pursue intellectually challenging careers (Greene 2006; Muratori and Smith 2015).

Expectations of Others

Characteristics of Careers Gifted students generally appear to be subject to substantial expectations from their families, teachers, counsellors, and/or other members of society to achieve *success* in their future careers, which may encompass the pursuit of careers that are prestigious, respectable, well-paying, allow for

the fulfilment of potential, and are of value to others in society (Chen and Wong 2013; Emmett and Minor 1993; Greene 2006; Leung et al. 1994; Miller and Cummings 2009; Muratori and Smith 2015). For some gifted students, such expectations may be experienced in the form of implicit or explicit messages that they should aspire to careers in particular fields due to their abilities, even if their interests may lie elsewhere (Muratori and Smith 2015; Sampson and Chason 2008; Stewart 1999). For others, the significant others in their lives may offer emotional support, a genuine opportunity to discuss the available career options, and assistance in the making of career decisions that are autonomous (Muratori and Smith 2015). The precise nature of the expectations of others may have consequences for gifted students in terms of whether their career development is enhanced or compromised, and whether the actual experience of making the career decision is conflicted and stressful, or free of such problems.

Gender Role Despite changes to societal views over the years, it is noteworthy that gifted students appear largely to continue to show a preference for careers that are consistent with traditional societal stereotypes about gender roles (Chen and Wong 2013; Fiebig 2008; Kerr and Sodano 2003; Miller and Cummings 2009). That is, gifted male students appear largely to pursue careers in male dominated fields, such as engineering, physical sciences, business, medicine, and law, while gifted female students continue to show an orientation toward “feminine” careers in fields such as biology (Chen and Wong 2013). Such a state of affairs may reflect factors including gendered socialisation processes, the availability of positive role models of the different genders in the various career fields, and the compatibility of the various careers with alternative life roles such as motherhood (Chen and Wong 2013; Leung et al. 1994; Scott and Mallinckrodt 2005). This appears to have had the consequence of restricting the *freedom* in the range of careers that are actively explored by gifted students of the different genders (Chen and Wong 2013; Kerr and Sodano 2003). Nevertheless, in comparison to gifted male students, gifted female students appear to have more liberal and progressive attitudes, and a greater general willingness to cross traditional gender boundaries in their thinking about their future careers (Leung 1998; Vock et al. 2013).

Difficulties with the Career Decision

Scholars have found that one or more of the personal traits and characteristics of gifted students, including multipotentiality and perfectionism, along with a high level of sensitivity to the expectations of others, may lead some gifted students to experience a range of difficulties with their career decisions. The term career indecision refers collectively to such difficulties (Di Fabio et al. 2013; Gati et al. 1996; Jung 2013; Jung and Young 2017; White and Tracey 2011), which may take the

form of (a) an inability to make a career decision, (b) delays in making the career decision, (c) a frequent change to the area of study, (d) a sense of being “stuck” in a career due to substantial prior investments, (e) the making of a decision from a limited number of career options, and (f) the selection of a career that is incompatible with one’s level of ability (Emmett and Minor 1993). It is noteworthy that a *majority* of gifted students have been found to experience some of these difficulties in making the career decision, although this may not always be considered problematic if the experience is temporary, non-prolonged, and without long term negative consequences (Chen and Wong 2013; Creed et al. 2006; Stewart 1999).

Approach to the Career Decision by Gifted Students

Not only are gifted students influenced by a unique set of factors in making the career decision, they also appear to approach the career decision in a distinct manner. First of all, in comparison to the rest of the student population, gifted students have been found to have a superior level of access to career and related information. For example, scholars (Jung 2017; Kelly and Cobb 1991; Stewart 1999) have suggested that they may (a) have sound knowledge about the world of work in general, (b) be successful in the acquisition of information about the various career options, (c) be knowledgeable about the preparation that is necessary for these career options, and (d) understand how specifically they should go about planning their careers. Therefore, in comparison to students who are not gifted, gifted students may generally be better prepared to make the career decision, make career decisions that are better informed by the available information, and make career decisions that better meet their individual requirements and expectations.

Perhaps reflecting their superior access to career information, many gifted students have been found to show an early emergence of career interests. For the general student population, structured thinking about one’s future career appears to commence during childhood, whereby there is a conscious exploration and a preliminary engagement with the world of work, to eventually result in the establishment of relatively stable occupational aspirations by approximately the eighth grade (Hartung et al. 2005; Jung and Young 2017). For gifted students, conscious thinking about a future career may begin even earlier, leading to an early progression through the various stages of career development, and even an early foreclosure on a particular career (Achter and Lubinski 2005; Matthews and Foster 2005). While some believe that an early commitment to a career may be undesirable as it is likely to reflect an inadequate level of exploration of the available career options, others point to the fact that those who eventually go on to achieve eminence in their careers tend to have commenced training and education in these careers from a very young age (Ferriman et al. 2009; Jung and Evans 2016; Jung 2019; Rysiew et al. 1999).

Career Aspirations of Gifted Students

In parallel with the repeatedly identified patterns in the issues that are considered by gifted students in their approach to their career decisions, a clear pattern has been identified across a number of studies in the career aspirations of gifted students. Almost universal consensus appears to exist that gifted students tend to choose from a very limited range of *unoriginal* and *traditional* career options, often in the professions that require a tertiary education (Achter et al. 1997; Chen and Wong 2013; Jung 2017; Kerr and Sodano 2003; Leung 1998). In terms of Holland's (1997) taxonomy of occupational groups, gifted students generally appear to have high levels of interest in the investigative type careers that involve substantial analytical, intellectual and scholarly activities, and a low level of interest in the social type careers that require qualities such as generosity, cooperativeness, patience, caring, and empathy (Jung 2017; Kher-Durlabhji et al. 1997; Schmidt et al. 1998; Sparfeldt 2007; Vock et al. 2013). To a lesser degree, gifted students have been found to favour realistic type careers that involve working with machines and tools, and disfavour enterprising type careers that require qualities such as leadership, ambition, and assertiveness (Vock et al. 2013). The specific careers that are the most attractive to gifted students appear to be in the fields of engineering, the physical sciences, business, and communications (Achter et al. 1997; Chen and Wong 2013; Kerr and Colangelo 1988; Kerr and Sodano 2003).

Career Theories Relevant to Gifted Students

It is unfortunate that, at the present time, no theory exists that has been specifically designed to understand the career development of gifted students. Nevertheless, two existing career theories appear to stand out as being potentially useful – Gottfredson's (1981, 2002, 2005) theory of circumscription and compromise, which may be classified as a modern career development theory, and the theory of work adjustment (Dawis and Lofquist 1984; Lofquist and Dawis 1991), which is a contemporary person-environment fit theory.

Theory of Circumscription and Compromise Gottfredson's (1981, 2002, 2005) theory of circumscription and compromise, which may be more familiar to scholars in the fields of vocational psychology or career development than scholars in gifted education, conceptualises career development as involving four developmental processes:

- (a) The development of one's cognitive abilities;
- (b) Self-creation, whereby genetics and the environment interact to shape one's interests, skills, values, and goals;
- (c) Circumscription, whereby career options are progressively eliminated on the basis of factors such as gender role, prestige, and interests; and

- (d) Compromise, whereby one's most preferred career options are eliminated on the basis of a lack of access, due to factors such as a lack of financial means to obtain appropriate educational/training opportunities, a lack of family support, and cultural or societal expectations (Muratori and Smith 2015).

The theory appears to be particularly useful for understanding the career decisions and development of gifted students, due to its acknowledgement of factors that have been commonly found to be salient to gifted students, such as cognitive abilities, the valuing of prestige, personal interests, the expectations of others, and gender role expectations. It is also noteworthy that Gottfredson (2005) considered cognitive abilities to direct the speed with which one may progress through the various stages of career development, which implies that gifted students may commence their career development earlier than the rest of the student population, and that they may show an early commitment toward particular careers.

Theory of Work Adjustment In comparison to the theory of circumscription and compromise, the theory of work adjustment is unique in that it has been used for a number of decades to investigate the career development, over the lifespan, of multiple cohorts of highly gifted students in the *Study of Mathematically Precocious Youth* (Achter and Lubinski 2005; Lubinski and Benbow 2000; Makel et al. 2016). Under this theory, both cognitive abilities (e.g., verbal-linguistic, mathematical-numerical, and spatial-mechanical abilities [Snow and Lohman 1989]), and personal needs, values, and interests (e.g., Holland's 1997 realistic, investigative, artistic, social, enterprising, and conventional vocational interests), are collectively considered to be pivotal in decisions relating to one's future education and career (Lubinski and Benbow 2000). An optimal career decision is considered to be made according to the theory when *satisfactoriness* (i.e., a correspondence between one's abilities and the ability requirements of the career) and *satisfaction* (i.e., a correspondence between one's personal needs such as interest and the rewards offered by the career) are simultaneously achieved. In situations where multiple careers allow for both satisfactoriness and satisfaction, other factors may also be considered, including family considerations, personality traits, and the state of the labour market (Dawis 2005). The theory appears to be useful in understanding the career development of gifted students, not only due to its simultaneous recognition of abilities and interests, but also because of its acknowledgement of other factors that gifted students may consider in their career related thinking, including family expectations, culture, and socio-economic status (Dawis 2005).

It must be noted that both the theory of circumscription and compromise, and the theory of work adjustment, have limitations in allowing for a complete understanding of the career development of gifted students. For example, the theory of circumscription and compromise devotes minimal attention to factors such as the expectations of family members, the valuing of intellectual stimulation, multipotentiality, or perfectionism. Indeed, the inference in the theory that a "good enough" career (rather than a perfect career) may eventuate during the process of compromise may be seen as being antithetical to perfectionism. In comparison, the

shortcomings of the theory of work adjustment appear to relate to its lack of acknowledgement of gender role expectations, a need for intellectual stimulation, the fulfilment of potential, high self-aspirations, or multipotentiality.

Empirical Models of the Career Decision-Making Processes of Gifted Students

Possibly more useful than either the theory of circumscription and compromise or the theory of work adjustment in understanding the career development of gifted students may be the empirically tested and refined models of the career decision-making processes of gifted students developed by Jung (2013, 2014, 2017, 2018). These models were informed by the literature in multiple areas, including the literature on the career decisions of gifted students, culture, motivation, and the theories of career development. A schematic representation of an empirically verified model of the career decision-making processes of gifted students that leads to the formation of career intentions, informed by data collected over two phases from two independent samples of gifted students, is presented in Fig. 15.1 (Jung 2017).

The model suggests that, in general, gifted students with an individualistic outlook toward the future or a collectivistic attitude toward their families are likely to value interest and enjoyment in their careers (with the valuing of interest or enjoyment likely to coincide with the valuing of recognition from others but not with the valuing of income). The valuing of interest or enjoyment is itself likely to predict both a need for intellectual stimulation and attitudes toward careers, which in turn

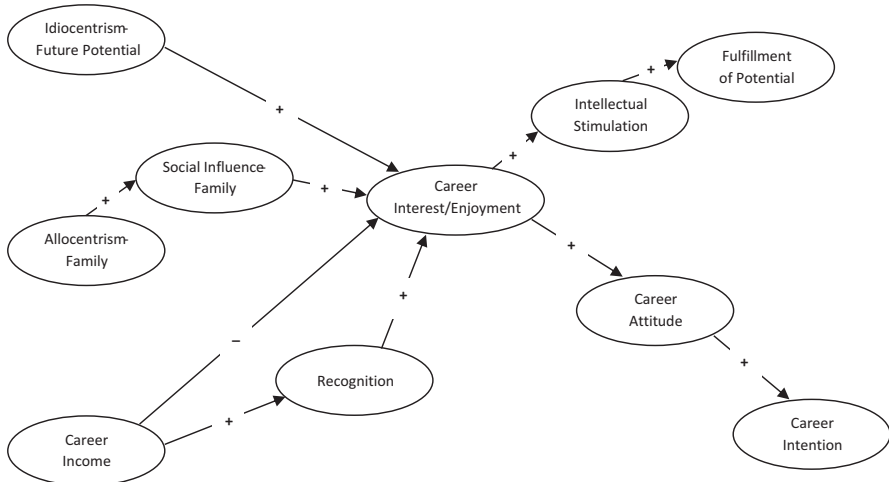


Fig. 15.1 Decision-making processes associated with the formation of career intentions (“individualism” and “collectivism” define phenomena at the level of cultures, and “idiocentrism” and “allocentrism” are the corresponding terms used respectively at the level of the individual.)

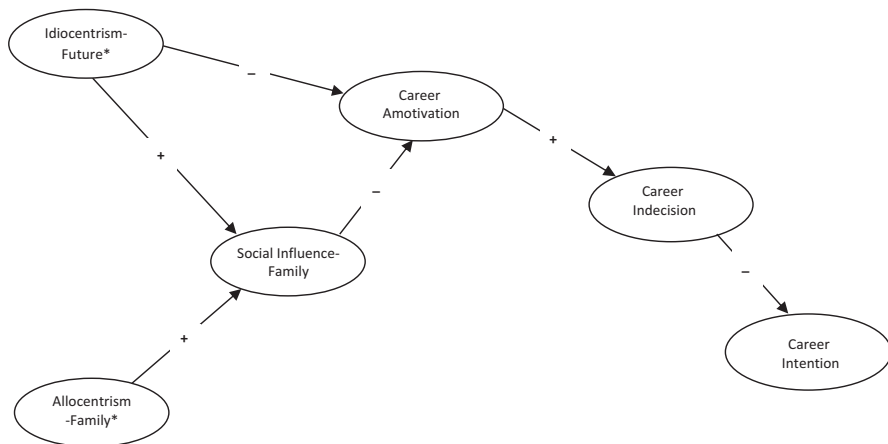


Fig. 15.2 Decision-making processes associated with career indecision (“individualism” and “collectivism” define phenomena at the level of cultures, and “idiocentrism” and “allocentrism” are the corresponding terms used respectively at the level of the individual.)

may predict, respectively, a desire to fulfil one’s potential and career intention. The positive relationship between career interest/enjoyment and a need for intellectual stimulation in the model suggests that those careers considered interesting and enjoyable by gifted students may also be intellectually stimulating. In comparison, the lack of a relationship between a desire to fulfil one’s potential and career attitude, may be indicative of the possibility that the fulfilment of potential, even if it coincides with a need for intellectual stimulation, may not be an important consideration in the formation of the career intentions of gifted students.

Figure 15.2 provides a schematic representation of an empirically verified model of the decision-making processes of gifted students that leads to career indecision (Jung 2018). The model suggests that gifted students without social influences from the family, or an individualistic outlook toward the future, may become amotivated about their future careers, which may be a pivotal factor in the eventual experience of career indecision. It is noteworthy that both multipotentiality and perfectionism, which have traditionally been considered to be associated with career indecision among gifted students, were removed during the refinement of the model. Indeed, Jung (2018) established that perfectionism may not always be a pervasive characteristic of gifted students, while the association between multipotentiality and the other elements of the career decision-making processes of gifted students may not always be sufficiently direct.

The two empirical models (Jung 2017, 2018) may allow for a practical understanding of how specifically gifted students may go about either forming intentions to pursue their future careers or become undecided about their future careers, which may be useful in informing how the career development of gifted students could be optimally supported. In particular, as the valuing of interest/enjoyment, attitudes toward careers, and amotivation about the career decision appear to play pivotal and

mediating roles in the career development of gifted students, these elements may need to become the focus of any counselling and guidance support for these students. For example, special attention may need to be devoted to the careers considered to be the most interesting and enjoyable, the careers for which the most favourable attitudes exist, and the experience or otherwise of amotivation about the career decision. Where concerns exist about any excessively low career aspirations of gifted students that may not allow them to realise their potential, Jung (2017) has suggested that it may not be particularly useful to emphasise the need to fulfil one's potential. A more effective approach may be to highlight the interesting, enjoyable, and by association, the intellectually stimulating aspects of the desirable careers. For gifted students who are experiencing difficulty with the career decision, including amotivation about the career decision or career indecision, Jung (2018) has suggested that it may be useful to direct them away from the experience of career a motivation through the encouragement of an individualistic outlook toward the future or interactions with family members. The strategies that have been outlined represent some of many that have been proposed by Jung (2013, 2014, 2017, 2018) to support the career development of gifted students.

The Future of the Career Development of Gifted Students

The work environment of the future for all students, including gifted students, is likely to be substantially different to the work environment of today. The transition that is currently taking place from an *industrial* society characterised by industrialisation, urbanisation, and immigration to an *information* society characterised by rapid advances in technology, an increasing emphasis on intellectual capital over labour capital, and where the “mechanical age of the city is giving way to the media age of the global village” (Savickas 2003, p. 88), is expected to bring about multiple changes to the areas in which people will work, and the manner in which they think about their careers. Essentially, the future work environment appears likely to see an increasing displacement of roles in labour-intensive fields, a parallel increase in new roles that cannot be automated, increasing globalisation, the emergence of “flatter” and “leaner” organisations that are more responsive to international competition, an increasing reluctance by organisations to offer permanent employment arrangements, and the increasing availability of temporary, part-time, and self-employment arrangements that are centred around individual projects (Passaretta and Wolbers 2019; Savickas 2003; Storey 2000; Störmer et al. 2014). Reflecting such changes, careers in the future for gifted students may become non-linear and “turbulent paths that unfold across multiple organizational, occupational, and cultural settings ... (and) where transitions occur more frequently than ever, leading to discontinuities and fragmented careers” (Chudzikowski 2012, p. 298).

In large part, the future work environment appears to be favourable for gifted students. The anticipated increase in the number of new, complex, intellectual, and creative careers that require substantial and multiple skills (Autor 2015; Gittins 2017; Höpfl and Atkinson 2000; Littleton et al. 2000; Quinn 1992; Richardson 2000; Storey 2000) may well suit gifted students who tend to have exceptional abilities and interests in multiple areas, particularly in areas that involve intellectual and creative activities (Chen and Wong 2013; Emmett and Minor 1993; Herr and Cramer 1996; Jung 2019; Rysiew et al. 1994, 1999; Sparfeldt 2007; Störmer et al. 2014; Tang 2003; Vock et al. 2013; Watts 2000). The multipotentiality of gifted students may also put them at an advantage in being better positioned than non-gifted students to adapt to the differing requirements of the various work environments within a particular career field. In situations where re-education or re-training is necessary to gain the latest vocationally relevant skills, gifted students may again be advantaged due to their capacity and motivation for continuous learning throughout their working lives (Jung 2014, 2019; Watts 2000).

Despite the many advantages that are likely for gifted students, they may nevertheless be required in the future to make conscious and pro-active efforts to become successful in their careers. Perhaps most importantly, and reflecting the multiple and iterative career-related decisions that are likely to be necessary throughout their working lives, gifted students may need to take greater personal responsibility for the management of their careers. This may include the devotion of substantial time and effort to the development and maintenance of a wide range of vocational and related skills to maximise their continuing employability (Herr 2003; Savickas 2003; Störmer et al. 2014; Verbruggen 2010; Watts 2000). In addition, they may find it necessary to maintain a strong and diverse professional network of colleagues, associates, employers, customers, and acquaintances to gain formal and informal knowledge about the latest developments in the field, which may be useful, if not critical, in the progression and development of their careers (Störmer et al. 2014; Sullivan 1999).

Of note, some scholars have suggested that the traditional forms of careers may still remain to some extent in the future, and that they may favour gifted students. For example, Dries et al. (2012) indicate that a growing bifurcation is currently being observed in the labour market among workers with respect to their vocation-related skills and technical expertise, with the most attractive work inducements (e.g., job security, promotions, and pay rises) being offered to those in possession of the most valuable skills and expertise. It is possible that these “gifted” and “talented” workers will most likely come from the pool of former gifted students. We may therefore have a situation whereby the traditional forms of careers are increasingly “reserved” in the future for gifted students who become gifted and talented workers, while students who are not gifted (and are therefore less likely to become gifted and talented workers) may be “forced” to fill non-traditional roles that may offer increased self-direction and freedom, but also greater responsibility and uncertainty (Dries et al. 2012; Störmer et al. 2014).

Concluding Remarks

The many distinguishing characteristics of gifted students that relate to their career development may mean that the issues that they consider in making the career decision, their approach to the career decision, and their career aspirations may be substantially different to the rest of the student population. Certainly, the exceptional level of their abilities may mean that gifted students are a group who need to be fully supported in their career development, to allow for the realisation of their substantial potential for the benefit of society at large. Unfortunately, research in the area is only emerging, and much more needs to be known about the career development of these students and the optimal approaches to support them. It is consequently unsurprising that very few career practitioners are in a position to adequately support these students. More meaningful attention to the career development and related needs of gifted students is urgently necessary from scholars and practitioners alike.

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Chapter 16

Career Guidance for Children and Youth with Disabilities



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Abstract The chapter examines the role of career guidance with children and youth with disabilities from a full-inclusion perspective. The analysis started with the description of global challenges, which define the coordinates that frame the contexts where persons and societies evolve, highlighting the effects of globalisation, technological progress, demographic change, flexibility, global financial crisis, and neoliberalism on the current job market. Then, based on Life Design paradigm and Positive Youth Development paradigm, the relevance of children's career development was discussed and the need for career interventions in early childhood to offer growing opportunities for all children and youth was emphasised. Lastly, particular attention was given to examples of macro-, meso- and micro-level actions that can be implemented to promote children's career guidance in an inclusive perspective.

Keywords Career guidance · Inclusion · Children with disabilities · Youth with disabilities

In recent years, a number of contributions from the social sciences, economics and political science fields have focused on the issues of inclusion and inclusive society. These contributions describe the advantages of inclusive social, work and school contexts that recognise and value heterogeneity, equity and co-operation. Inclusion has been proposed, for example, to serve as an important determinant of well-being of individuals and society (Curtis 2004). Wilkinson and Pickett (2010) provided

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ample evidence of the strong relationship between inclusion and the Index of Health and Social Problems. According to the authors, individuals living in more equal and socially inclusive societies are better-off and report greater levels of well-being than individuals participating in societies that do not enable access to social inclusion. Work settings that promote diversity and inclusion have been found to function more effectively (Bodla et al. 2016). Organisations that are more heterogeneous with respect to inclusion of individuals with disabilities, from a range of racial/ethnic backgrounds and countries of origin, age and gender have been found to be engaged in more innovation, idea generation, creativity as well as able to identify better quality solutions to problems (Mach and Baruch 2015). In this chapter, disability is considered the manifestation of limitations in individual functioning within a social context that represents a significant disadvantage to the individual (Shogren et al. 2014).

What emerges from these contributions, and clearly from the words of Shafik Asante (2002), former leader of the New African, is that inclusion does not refer only to people who have less clearly recognised difficulties. It no longer makes sense to talk about inclusion of people with disabilities, psychiatric problems, immigrants, etc. Inclusion involves recognising the uniqueness that characterises individuals and the necessary interdependence between them: “Inclusion is recognizing that we are one even though we are not the same” (Asante 2002, p. 1). According to Asante (2002), fighting for inclusion requires policies and practices that ensure all individuals and institutions are ‘active’ in order to facilitate full participation.

Career guidance supports social equity when career development programs stimulate normalisation, participation, inclusion, and respect for the rights of all individuals (with and without disabilities and vulnerabilities). As such, career guidance professionals who are working with children, youth and adults with disabilities need to use theoretical and practice models that apply to children, youth, and adults of all abilities with an understanding that accommodations may be needed to support full participation for individuals with disabilities. Moreover, by using universal design for learning strategies (CAST 2011), individuals with disabilities should have access to the same career development activities, instruments, and interventions developed and tested for peers without disabilities.

The chapter examines the role of career guidance with children and youth from a full-inclusion perspective and in relation to the today’ social challenges. Particular attention will be given to examples of macro-, meso- and micro-level actions that can be implemented to promote career guidance in an inclusive perspective.

The Challenges of Today’s Inclusive Society

For children and youth with disabilities to experience full inclusion, they must be participating in social and civil life contexts that promote inclusion policies and practices for all. We, therefore, offer some reflections on current job market

challenges and how these challenges impact the social and civil life contexts for all individuals and, especially, individuals with disabilities.

The three mega-trends of globalisation, technological progress and demographic change are significantly altering the job market in all G20 countries, albeit with different intensity (Organisation for Economic Co-operation and Development [OECD] 2017). These trends may offer unparalleled opportunities for the upcoming generations by modifying or reducing existing jobs and creating a multitude of new jobs that exist outside the technology-producing sector itself (McKinsey Global Institute 2017). The report *The Future of Work* developed by the World Economic Forum (2016), asserted that 65% of children attending elementary schools today will pursue job types and functions that currently do not yet exist. Additionally, the technological progress may facilitate certain workplace adjustments to increase the employment rates of individuals with disabilities.

However, there are also significant challenges associated with these trends for career guidance professionals, especially those working with individuals with disabilities. Rapid advances in automation (e.g., self-driving cars, robots, and artificial intelligence networks) will reduce the number of jobs available, as about 50% of jobs are at risk of being computerised and humans will be replaced by machines (Frey and Osborne 2017). This warning has recently been issued also by the World Economic Forum in 2016 in Switzerland, which discussed the consequences of the fourth industrial revolution. The high levels of automation and connectivity achieved through the Fourth Industrial Revolution have the potential to dramatically increase the gap between wealthier and the poorer bracket of the population because technology creates wealth difference between people who depend on capital and people who depends on labour. This situation could have a negative impact on especially those who are already at risk of being excluded from the job market, such as individuals with disabilities.

The liberalisation of trade, finance and capital movements and globalisation have favoured the 'flexibilisation' of the work contract and the proliferation of employment practices and short-term contract options (Kesisoglou et al. 2016). Therefore, in all Western countries 'standard employment' is declining in favour of 'flexible' and 'atypical' employment (e.g., part-time, contracts for specific tasks or services). Workers are likely to switch their job at least 12–15 times, and this number is projected to grow in the coming years (U.S. Bureau of Labor Statistic 2015).

The proliferation of 'flexible' and 'atypical' jobs is intensifying significant pockets of precariousness in the job market and these effects are especially challenging for individuals with disabilities (Gutiérrez-Barbarrusa 2016). Although there is no universally accepted definition of *precarious employment*, Gutiérrez-Barbarrusa (2016) identified the following features: (1) insecurity regarding continuity of the employment relationship; (2) insufficient wages or discriminant remuneration; (3) deterioration of the employment relationship and workers' vulnerability in terms of hours and intensity of work, promotion, health and safety, etc.; (4) weakening of workers' social protection.

In describing the current social context, it should be considered that the global financial crisis, which started in 2008, still impacts on many Western countries and

a stagnating economic growth and a sovereign debt crisis strongly influence the job market (Zwiers et al. 2016). In many Southern European countries, unemployment rates continue to be very high and long-term unemployment seems to be a persistent problem in several countries. This appears to be particularly true for individuals with disabilities: In terms of employment, EUROSTAT (2014) reported that the individuals with disabilities were the most influenced from the financial crisis with an unemployment rate of 12.1% in the 28 EU countries, that is, 2.5 percentage points more than individuals without disabilities.

This global financial crisis was the consequence of the hegemony of neoliberalism, based on self-regulated and efficient markets (Birch and Mykhnenko 2010). According to Ostry et al. (2016), members of the International Monetary Fund Research Department, some neoliberal policies have increased inequality and poverty rates to the point that these policies may begin to destabilize the economic growth that the neoliberal agenda was aimed at boosting. Data published by the World Bank (2016) showed that about 10.7% of global population is living in extreme poverty, with more than one sixth of the world population live under the poverty line of \$1 a day. Again, these economic conditions are especially challenging for individuals with disabilities whose poverty rates range from 50% to 300% higher than the general population (Schartz et al. 2002). Several factors contribute to explain this condition for the population with disability, such as higher unemployment rate, greater number of part-time and temporary workers, income discrepancies between workers with and without disabilities, etc.

One negative consequence in the rise of neoliberalism is an increase in precarious employment. On the individual level, precarious employment leaves workers in unstable and insecure situations, negatively influencing their life and career planning options (International Labor Office [ILO] 2011). The uncertain continuity of short-term work contracts, and lower wages does not allow temporary workers to make future plans that involve marriage and having children. Not only are these individuals experiencing less control over their standard of living and personal autonomy, they are increasingly dependent on their family or social welfare benefits (ILO 2011). Even children and youth appear to be influenced from this condition; they tend to have negative perceptions about their future, that is, discomfort, uneasiness, and confusion, and limited propensity to think about multiple options and improvements in their future living conditions (Ginevra et al. 2016).

On the social level, these short-term and contract employment arrangements are commonly offered as examples of not having access to 'good/decent work' due to their characterizations unstable work arrangements that result in economic insecurity, lack of legal and regulatory protections, and discrimination. Additionally, a high proportion of precarious employment in a community corresponds with low levels of cooperation and social cohesion, and a significant decline in participation in trade unions and community organisations and institutions (ILO 2011).

Overall, it is clear that the current job market is a dynamic context, with complex and unpredictable scenarios in which many people, and especially individuals with disabilities, are at-risk. In relation to these challenges, career guidance professionals serve an important social role in 'preparing' children and youth for the jobs of the

future. In addition to basic and advanced technical skills, children and youth must be equipped with the social emotional and resiliency skills, resources and attitudes necessary to successfully cope with the ever-changing, technology-rich job market (OECD 2017). Although there is little urgency for children to make immediate occupational choices, it is important that career guidance professionals adopt a lifespan perspective and promote, from very early childhood, the development of career knowledge, skills, and positive attitudes as essential elements for future adaptation and well-being. All this seems even more crucial for children and youth with disabilities, who are more at risk for the current job market, especially because they often exhibit inadequate and irrational occupational beliefs regarding the world of work, lower soft skills, great difficulty in setting future goals, and little information regarding occupational options (Hitchings et al. 2001; Lee et al. 2015; Müller and VanGilder 2014).

Career Guidance in Childhood and Youth from an Inclusive Perspective

There is a growing consensus within the international literature that career guidance efforts must begin in childhood. After reviews published in the *Journal of Vocational Behavior* in 2005, and the special section on child care development published in 2008 in *The Career Development Quarterly*, a new push was promoted by works published in the *International Journal for Educational and Vocational Guidance* in 2015. The interest in this issue is also demonstrated by the presence of two symposia in the conference ‘Decent work equity and inclusion: passwords for the present and the future’ held in Padova in October 2017.

Traditionally the relevance of children’s career development was promoted by scholars as Gottfredson (2002) and Super (1957). Their theories addressed the systematic progression of one’s thinking about the world of work and workers throughout the life cycle and conceive childhood as the launching point of an enduring process of vocational development characterised by stages and associated developmental tasks. Even Howard and Walsh (2011) elaborated a model of children’s conceptions of two key career development processes: career choice and career attainment. The authors identified the approaches of association, sequence and interaction to explain the reasoning of children about the work-related processes of choosing and securing a job or career.

More recently, positive ecological approaches are emerging as prominent (e.g., Positive Youth Development, Lerner et al. 2009; Life Design, Savickas et al. 2009). They emphasise people’s strengths and the complex set of relationship between the individual and his/her life settings, which as reciprocal and adaptive are crucial for positive development. Among these approaches, we refer to Life Design, which has its founding in the epistemology of social constructivism (Savickas 2015). Adopting a life-long perspective, Life Design supports the idea that, by proposing experi-

ences and activities, children and youth improve core attitudes and start to form concern about the future, develop beliefs and competences for planning a future and control over their life, explore self and occupations and develop curiosity about work and careers, and build confidence to construct a future and deal with barriers (Hartung 2015). As prerequisites of career adaptability, resilience, hope, optimism, and time perspective, these competences allow children to learn how to self-manage their career development, negotiate career transitions, and plan their future (Nota et al. 2015).

In this process of career development, a series of developmental tasks, involving the other areas of development, such as social (e.g., social expectations regarding age-appropriate behaviour; socialization), cognitive (e.g., occupational knowledge and planning own goals), emotional (e.g., emotions and motivations in reaching own goals) are provided (Pinquart and Pfeiffer 2015). This implies that all areas of development such as cognitive, emotional, social, linguistic, and so on have in fact their unique traits, but they are all linked together, dependent of each other, and could so contribute to positive functioning and development of the individual.

Given the early nature of career development and its close relationship to other areas of development, several scholars (e.g., Hartung 2015; Watson et al. 2015) underline the need for career interventions in early childhood to offer growing opportunities for all children and youth, as soon as possible, with the aim of promoting positive career paths, stimulating competences and resources crucial for career planning as well as contributing to quality of life and psychosocial wellbeing. This should also apply to children and youth with disabilities who, as mentioned above, tend to be at greater risk in their professional design processes and to be more at risk of being excluded from the world of work (Lee et al. 2015).

In contrast to career choice and decision-making, a new positive youth development paradigm has been proposed in which the purpose of engaging children and youth in career development is to enable them to build their capacities, finding and taking advantage of numerous learning opportunities that allow them to build their capacities to successfully achieve career opportunities (Howard et al. 2017; Solberg 2017; Solberg and Ali 2017). The relevance of using career intervention programs to facilitate positive youth development has been espoused by a number of association and institutions including the Australian Blueprint for Career Development, the Canadian Blueprint for Career Development, the American National Career Development Guidelines Framework as well as the American School Counselor Association Standards for students (Hooley et al. 2013; Howard et al. 2017).

We believe career counselling and education today should first overcome a focus on career choice and decision-making and focus more effort on self-exploration skills related to developing and becoming aware of one's interests, skills, and values. For example, in our Larios laboratory at the University of Padova, we are promoting harmonious passions and enriching the traditional concept of interest. Children and youth can be encouraged to reflect on the elements that characterise the activities for which they are passionate, that is, the curiosity, the level of involvement, the satisfaction in carrying out the activity, the time they dedicate to their development (Vallerand et al. 2003). They can be further stimulated to reflect on

how to combine different interests and passions, and link these passions to their career future, identifying the acquired resources and skills that could be used in the working context.

Curiosity and knowledge towards the world of work can instead be promoted by involving children and youth in games and activities in which they have the opportunity to learn about occupations. Specifically, through reading, descriptions, film visions, guided tours and experiments, children and youth can learn the tools used in the occupations, the actions that are performed, the objects and services that are produced, etc. At the same time, to the opportunity should not be missed to stimulate reflection on professional activities in which children and youth come into contact in everyday situations but also in less frequent events that could also be arranged ad hoc, such as the sight of a museum or the workplace of parents.

Secondly, promoting career development by emphasising capacity building includes increasing efforts to provide greater opportunities to access learning, training and work development opportunities that expand the vision of their possible career selves, the range of career paths to be considered, the acquisition of resilience and problem-solving skills to face in innovated and original ways the world of work and life challenges. In thinking about their career future, children and youth with and without disabilities should be helped to recognise and focus on their resources and strengths, and the skills and competences needed to identify career and life goals (Chen and Chan 2014). In an inclusive perspective, they could be stimulated to narrate themselves in a positive way, highlight their potential, strengths and skills as well as those of their peers, in order to support positive views of themselves and others, to enlarge the number of future options to consider and instil a positive vision of the future. In this regard, it is important to help them ‘unstuck’ diagnostic labels that could lead to negative categorisation and stigmatisation processes, and foster obstacles and barriers to their positive personal and professional development. In addition to self-regulation and self-determination, the study of new dimensions such as courage, solidarity, authenticity, sustainability, which are more aligned with the current times and increasingly emerging as important paths to promote positive development, should be considered (Thomaes et al. 2017; Whittington and Mack 2010).

Thirdly, it is crucial to place greater attention to the context to achieve greater levels of social justice and equity for all. People should become able to analyse the strengths and weaknesses of the different realities, the advantages and disadvantages of the environments that are attended, and to identify new strategies for managing complex situations that allow them to advocate for themselves and for others. Additionally, considering what has been anticipated up to now and joining what emerges from the disabilities field that has enshrined the superiority of inclusive models for the development and learning, it is crucial that guidance activities are conducted in inclusive contexts that reflect and take into account the heterogeneity that characterises our societies. Career counselling and education should then be a vector of social change, of combating inequality and labelling. According to this, with children and youth, for example, attention should be paid to the word used in introducing or discussing occupational activities.

In an inclusive perspective, as suggested by Vervecken et al. (2013), it seems important to avoid stereotypical beliefs, and to stimulate openness and counter-stereotypical interests by presenting occupations as performed by both men and women, using both masculine and feminine terms. All this suggests that, in preparing and selecting books, videos and materials to be offered to children and youth, more attention should be paid to the language and images: it is for example preferable using 'fireman' and 'firewoman' as well as 'person with visual disabilities' instead of 'blind' or 'disabled'. Moreover, respecting multi-diversity, it should include images of people with disabilities who carry out jobs together and with other people without disabilities as well as those who differ according to gender, ethnic group and religion.

Actions of Involvement of the Context

Despite the recognition of the importance of context in approaches to inclusion, systematic work that defines the characteristics of the contexts that promote inclusiveness is limited. Context has been defined as "the totality of circumstances that comprise the milieu of human life and human functioning" (Shogren et al. 2014, p. 110). More specifically, context can be expressed as independent variable (personal and environmental characteristics that are not usually manipulated such as age, language, culture and ethnicity, gender and family) and intervening variable (organisations, systems, and societal policies and practices that can be manipulated to enhance functioning). The context, with its complexity, provides a framework for describing and analysing aspects of human functioning and society such as personal and environmental factors, supports planning, and policy development; and delineating the factors that affect, both positively and negatively, the levels of participation and inclusion of all people. In view of this, the analysis of contextual features is, in our view, central in the issues of career development from an inclusive perspective (Shogren et al. 2014).

Interventions at the Micro-level

Focusing on the micro-level, career guidance interventions could be directed at the family and school context. As regards the family context, there is an emerging literature on parental resources that have a key role in enabling parents to face challenging child and family circumstances, including disabilities, living in poverty, or experiencing cultural segregation and discrimination. We refer in particular to resources such as hope, optimism, courage, authenticity, career adaptability that may be useful to cope with difficulties (e.g., Ferrari and Nota 2015; Kashdan et al. 2002; Koenig et al. 2010). Career guidance professionals could underscore the role

of an optimistic, hopeful context rich in career adaptability, informing parents on these issues and implementing actions that can favour such a context. The parent training activities that Soresi and Nota (2009) have carried out with groups of Italian parents on professional planning issues suggest that parents' way of thinking can indeed be changed. At the end of the intervention, the parents not only showed higher levels of self-efficacy beliefs in managing interactions with their children, but they also focused on planning for the future and on a constructive dialogue between parents and children, which must be properly supported; parents also gave more importance to the 'process' and to 'how to do', rather than simply proposing their point of view; finally, parents considered their children's self-determination and satisfaction.

From a markedly preventive perspective, it may be important to work with the parents of pre-schoolers and elementary school children and to propose ad hoc material, with examples and illustration, online materials and videos, informational meetings. Parents of children and youth could be trained to watch and comment on books, cartoons or videos that could expand the children and youths' (with and without disabilities) understanding of the world and their interests, breaking also stereotypes related both to the world of work and people with disabilities (Vervecken et al. 2013). Exposing parents to successful models of people with disabilities at school and work to expand their range of options available to their children, involving them in the school activities and events dedicated to career issues to establish advantageous partnership, encouraging exposing their children to volunteering internship and job shadowing to increase their knowledge of occupations, are all additional suggestions that could be considered to increase parental support for their children's career development (U.S. Department of Education 2010).

As regards the school context, it should be pointed out that career guidance for children and youth with disabilities should be carried out in inclusive environments such as school settings. Career guidance should involve both students with and without disabilities, use a set of instruments and personalised programs, theoretically based, to respect and value the heterogeneity and diversity of each child.

Based on this, we think it is particularly important that teachers benefit from opportunities to participate in specific in-service training activities that will help them strengthen their students' skills and resources (e.g., career adaptability, hope, optimism, resilience, career knowledge) by developing specific forms of intervention with all their students—with and without disabilities—in inclusive educational settings. For example, in our Larios laboratory at the University of Padova, we have started the training program '*Path for building a portfolio of skills useful for career choice in an inclusive perspective*' for elementary, middle and high schools teachers. The training program, consisting of ten sessions for a total of 40 h, aims to train teachers to develop their skills to carry out, in their school settings, career education and career coaching interventions in an inclusive perspective. Teachers are trained to describe and personalise educational goals for each didactic unit, articulated in terms of conditions related to the context in which the skill was to be applied, performances regarding the behaviours to be learned, and a mastery criterion

describing expected performances at end of the unit. Moreover, they are trained to develop a personalised ‘guide to learning’ for each didactic unit, describing the non-verbal and verbal behaviours they should use during the unit.

Interventions at the Meso-level

Focusing next on the meso-level, we refer more in general to the community and to attitudes toward work inclusion of individuals with disabilities that can facilitate or hinder individuals with disabilities’ career construction and work inclusion.

As mentioned above, it is important to stimulate greater social awareness about the benefits of work inclusion and diversity for the community and promote social behavioural changes regarding diversity among large numbers of people. Specifically, individuals should be educated to speak about others in ways that highlight their strengths, without using categories or linguistic labels that are typical of negative or stereotypical points of view (Ferrari and Nota 2015; Siperstein et al. 2007), and to establish supportive positive relationships with others, based on respect for diversity, solidarity, and prosociality.

Internet and social media (ISM) can be a valid strategy to favour more positive attitudes in the community. Research has found that seeing individuals with disabilities who carry out specific activities (e.g., occupational activities, sports) in which disability is not a prevalent element, can positively affect attitudes towards individuals with disabilities in work contexts (von Sikorski and Schierl 2014). For example, Reinhardt et al. (2014), involving 279 typically developing individuals, found that after watching a three-minute film of a police officer in a wheelchair apprehending a criminal, the suitability for employment of a person with paraplegia in six jobs (roofer, police officer, carpenter, teacher, physician, clerk) significantly increased. This allowed the authors to assert that “unusual media portrayals of disabled protagonists which break with stereotypes in a positive manner can improve attitudes toward disabilities (at least) in a short term” (p. 5). Similarly, watching people with intellectual disabilities performing at Paralympic level changes attitudes in a positive direction at least in the short term (Suggs and Guthrie 2017).

An additional meso-systemic strategy is to sensitise employers to structured work-based learning approaches for students with disabilities. Although work-based experiences are critical opportunities for youth with disabilities’ career development, these experiences are dependent on willing and available employers. Luecking (2003) observed that generally employers have misperceptions and negative attitudes about both disability and youth, and therefore career guidance interventions should be carried out in order to increase an accurate knowledge and awareness about disability in general and specifically about youth with disabilities. An increased knowledge about their strengths, skills, and their values for contributing to the organisations should be promoted in employers.

Interventions at the Macro-level

Intervention at the macro-system level aims at impacting on policies and on politics. Practitioners could positively influence the macro-level by working collectively as a networked profession at international, regional and national levels. An example of networking is represented by the Network for Innovation in Career Guidance and Counselling in Europe (NICE), which brings together over 50 higher education institutions from more than 30 European countries that offer training for career guidance practitioners. During the International Conference ‘Decent work equity and inclusion: passwords for the present and the future’, researchers, lecturers, practitioners and stakeholders from several countries discussed the role of career guidance in an inclusive perspective, and the way the agenda of equity and social justice could be encouraged, particularly in relation to groups with vulnerability, including individuals with disabilities.

Another example of intervening at the macro-level is State Leaders Career Development Network. Established in the U.S. in 2014, the network offers leaders from education, workforce development, and disability sectors an opportunity to explore and share effective state-level career development implementation policies and practices. The network has grown to include over 75 leaders from more than 20 states who meet monthly via webinar technology to discuss their career development implementation efforts and to share updates on their policies and practices. Participants include leaders from state education agencies (e.g., school counselling, special education, career and technical education, college and career readiness), state workforce development agencies, vocational rehabilitation agencies, and higher education. This effort has resulted in establishing a shared perspective with regard to the nature and value of using individualized career and academic plans (e.g., Arizona Department of Education 2015; Colorado Department of Education 2014; Solberg et al. 2018; Wisconsin Department of Public Instruction 2016).

Another way of supporting career development policy and practice at the macro-level, as suggested by Ali et al. (2017), is for researchers to collaborate with practitioners and policy makers in order to more effectively translate career development research into practice and policy. The authors propose a knowledge-to-action model (K2A) to career development consisting of three phases. The first phase ‘Research’ includes developing and testing the scientific advances in career theory and interventions, and carrying out studies to determine the levels of evidence for career models and programs with different populations and different groups (including individuals with disabilities). The second phase ‘Translation’ is concerned with the processes that will ensure that evidence-based programs, practices, and policies can achieve widespread implementation (Wilson et al. 2011). It aims to translate knowledge into actionable products and develop appropriate structures and disseminate evidence-based programs, practices and policies to potential adopters. Particular attention should be given to the dissemination of information and materials to organisations and individuals who can use them to facilitate the career development

process for individuals and groups, and, in particular, to the dissemination to those who are in the process of implementing decisions at national and local events. The third phase involves the institutionalisation or maintenance of the program, practice or policy as an established activity or norm within the community, organisation or social system (Wilson et al. 2011). It is important that career guidance professionals and researchers address the issues of sustainability over time to promote the institutionalisation of career and workforce practices.

Conclusion

In this chapter, we wished to direct the attention of readers to the necessity for the career development field to invest more effort and energy toward inclusion. Our analysis started with the description of global challenges, which define the coordinates that frame the contexts where persons and societies evolve, even considering that the conclusions, though traced, still remain to be written. As researchers and professionals, we believe it is crucial to take into consideration mega trends as globalisation, technological progress and demographic changes are characterised by an intrinsic ambivalence in terms of opportunities, on the one hand, and an obstacle, on the other, which risk exacerbating the gap of inequality and inequities, condemning to marginalisation and poverty those who are in a disadvantaged position for various reasons such as the presence of disability and contributing to impoverishing societies.

According to the UN 2030 agenda, inclusion for all – together with economic growth and environmental protection – appears as the path to be taken to respond to the many current and future individual and social demands, on the way to the 5P of the Sustainable Development Goals (SDGs): people, planet, prosperity, peace and partnership. As concerns specifically the necessity to move toward an inclusive career development among the SDGs, a crucial role is played by Goal 4–Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all—and Goal 5–Achieve gender equality and empower all women and girls—and Goal 8–Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Promoting career development for all assumes an undeniable preventive value if realised as soon as possible with the involvement of the contextual resources. Preparing teachers and stimulating parents to inclusion could do the difference for a sustainable future of new generation and contribute to a more equal society for all. This requires also to adopt an inclusive view as concern diversity carrying out actions in order to increase participation of people beyond gender, ethnicity or the presence of disabilities and that could benefit for all. Also the role of career guidance professionals require inclusive visions and working modalities characterised by sustainable values and beliefs. More than in the past they are requested to leave no one behind and advocate for clients and the profession in developing advantageous partnership with local, national and international stakeholders.

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Chapter 17

Career Development of Refugees



Hannes Zacher

Abstract The global refugee crisis has increased the interest of vocational researchers and practitioners into this vulnerable population. This chapter focuses on the career development of refugees, particularly the development of vocational aspirations among students with refugee backgrounds, job search and finding adequate employment, adaptation to work and career tasks and challenges, and career counselling interventions. Three theoretical frameworks (i.e., social-cognitive career theory, life-span life-space theory, career construction theory) are reviewed with regard to potential applications to the career development of refugees. Subsequently, the theoretical and empirical literature on refugees and career development is summarized. This literature suggests that refugees encounter various challenges in their host countries, and that integration and career success are the results of a complex interplay between multiple individual and contextual influences. The chapter concludes with implications for future research and vocational practice. For instance, future research could make greater use of established career development theories that focus on the interplay of individual differences, contextual factors, and agentic behaviours as predictors of career development and success. Career counsellors may contribute to refugees' career development and success by helping them integrate their past professional experiences and future vocational aspirations with current tasks and challenges in their host countries.

Keywords Career construction theory · Career development · Life-span life-space theory · Migration · Refugees · Social-cognitive career theory

People have fled persecution, violent conflict, and war for thousands of years; however, current levels of forced displacement are unprecedented, with more than 22 million refugees around the world in 2017 (United Nations 2018). Approximately half of these refugees came from Syria, Afghanistan, Somalia, and South Sudan, and half of them are younger than 18 years old (Spiegel 2015). A significant number

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of refugees who fled the civil war in Syria and the terror regime of the so-called “Islamic State” in both Syria and Iraq currently live in refugee camps in neighbouring countries (e.g., Jordan, Lebanon, and Turkey). However, the final destinations of many refugees are also Western and developed countries such as Germany, Italy, and Sweden, as well as Australia, Canada, and the United States.

The United Nations High Commissioner for Refugees (UNHCR) defines refugees as individuals “who are outside their country of nationality or habitual residence and unable to return there owing to serious and indiscriminate threats to life, physical integrity, or freedom resulting from generalized violence or events seriously disturbing public order” (UNHCR 2011, p. 19). Thus, refugees have to be distinguished from voluntary immigrants, who also cross national borders and typically seek employment in their host countries, but are not forced to leave their home countries by factors they cannot control, such as civil war (Tharmaseelan et al. 2010). In contrast to immigrants, refugees are also more restricted in their employment opportunities in the host countries, for instance due to problems with the formal recognition of their previous qualifications, as well as bureaucratic and practical hurdles with regard to their access to education, training, and employment schemes (Stewart 2007).

Refugees face numerous tasks and challenges once they arrive in their host countries and attempt to integrate into mainstream society and the labour market (Koyama 2017; Yakushko et al. 2008). They have to apply for asylum status and potentially seek reunification with their families, learn the language and culture of their host countries, and find work to support themselves and potential dependents (Colic-Peisker and Tilbury 2006; Fleay et al. 2013; North 1995). Refugees often experience the transition from an agrarian or industrial society in a developing country to a post-industrial Western and developed country as very challenging (Abkhezr et al. 2015).

At the same time, governments in the host countries have to develop policies, practices, and procedures to support the integration of refugees into mainstream society and the labour market. Education and employment are central mechanisms to achieve this goal, but it often takes time until refugees are (formally) qualified to work in their host countries (Gericke et al. 2017; Spiegel 2015). For example, in Germany, only refugees who are officially granted asylum are allowed to work, and they have to pass an integration course that entails 600 h of German lessons and 100 h of civics (The Economist 2017). However, these efforts seem to pay off; research shows that stable employment not only reduces welfare dependency and facilitates integration of refugees into the host society but also improves educational and health-related outcomes of children of refugee families (Khoo 1994; Pernice and Brook 1996).

The focus of this chapter is on the career development of refugees, including (a) development of vocational aspirations among students with refugee backgrounds, (b) job search and integration into the labour market, (c) adapting to career tasks and challenges when employed, and (d) career counselling interventions for refugees. The first topic refers to students’ visions about their vocational future and the school-to-work transition. The second topic discusses vocational (re)training and

seizing opportunities for and overcoming barriers to employment. The third topic entails navigating employment relationships and dealing with career tasks and challenges (e.g., stressors such as discrimination at work). The fourth topic involves career development practices that vocational counsellors can use in working with refugees.

Generally, a career refers to the evolving sequence and combinations of people's work-related roles (also in combination with other life roles, such as parent or caregiver), activities, and experiences over time (Arthur et al. 1989; Super 1980). Consequently, career development entails continuous career phases during which different individual concerns and activities, as well as career tasks may arise and change (Greenhaus et al. 2000). In the remainder of this chapter, I first review potential applications of three prominent theoretical frameworks (i.e., social-cognitive career theory, life-span life-space theory, career construction theory) to better understand the career development of refugees in their host countries. Subsequently, I review the existing research literature on refugees and career development. I conclude by outlining implications for future research and vocational practice.

Potential Applications of Career Development Theories to the Situation of Refugees

Before reviewing the existing theoretical and empirical literature on the career development of refugees in their host countries, I describe important constructs and processes relevant to this topic from the perspective of three prominent theoretical frameworks of career development: social cognitive career theory, life-span life-space theory, and career construction theory. I chose these theories because they are the most widely used theories in the area of career development. Moreover, they complement each other well by addressing both content aspects (especially social cognitive career theory and career construction theory) and process/developmental aspects (especially life-span life-space theory) of career development (Brown and Lent 2016; Lent and Brown 2013; Super et al. 1996).

Social Cognitive Career Theory

Social cognitive career theory focuses on how people develop their academic and career interests, how they make educational and career-related decisions, as well as various individual and contextual influences on academic and career-related behaviour and career success (Lent and Brown 1996; Lent et al. 1994). The theory assumes that people enact personal agency; that is, they are able and motivated to actively influence their career development and work environment. The theory is based on Bandura's (1986) social cognitive theory and the triadic-reciprocal model, which

state that individual difference characteristics (e.g., interests, abilities, motivation, values), contextual characteristics (e.g., work demands, resources), and active behaviour reciprocally influence each other. According to Lent et al. (2002), social cognitive career theory “attempts to trace some of the complex connections between persons and their career-related contexts, between cognitive and interpersonal factors, and between self-directed and externally imposed influences on career behavior” (p. 256).

Applied to the career development of refugees, social cognitive career theory highlights that it is important to focus not solely on refugees’ individual difference characteristics, contextual characteristics, or their agentic behaviour, but to take the complex interplay between these factors into account in predicting career and integration success (e.g., Yakushko et al. 2008). For instance, successful or unsuccessful labour market integration of refugees may be due to their level of knowledge, skills, and abilities; support received by their families, governmental agencies, or private organisations; their personal initiative; or a combination of different factors. Regarding agentic behaviour, social cognitive career theory suggests that refugees can, to a certain extent, actively steer their career development within the context of opportunities and constraints of the labour market in their host country (Lent et al. 2002). The theory also highlights the importance of cognitive factors such as self-efficacy (i.e., the belief in one’s ability to successfully complete a given task, such as applying for a job; Bandura 1986), outcome expectations (i.e., beliefs about the consequences of performing certain behaviours), and goals (i.e., intentions to engage in a particular activity). Vocational counselling interventions could be used to influence refugees’ occupational self-efficacy beliefs, outcome expectations, and goals. These cognitive factors, in turn, may impact refugees job search success, career performance, and occupational well-being.

Life-Span Life-Space Theory

In contrast to the predominant content focus of social cognitive career theory, life-span life-space theory (Super 1980, 1984) places particular emphasis on the life-long process of career development. Specifically, as other developmental theories, life-span life-space theory partitions people’s careers into a number of consecutive stages (Super 1953). Super described five major stages of career development, each of which is linked to normative age ranges and specific vocational tasks and behaviours: growth (age 4–13), exploration (14–24 years), establishment (25–44 years), maintenance (45–65), and disengagement (65 years and older). Despite these normative age ranges, Super acknowledged that people can “cycle” and “recycle” through these phases independent of their age if they, for instance, switch jobs and occupations. In addition, closely linked to the notion of career stages, the theory adopts a contextual and multi-role perspective on people’s career development, with each life role linked to normative expectations and behaviours (e.g., child, student, employee, caregiver, retiree). A key assumption of life-span life-space theory is that

each life role of a person can only be understood by taking the entire constellation of more or less salient life roles held by a person into account.

Based on life-span life-space theory, vocational research and practice regarding refugees' career development could focus on refugees' tasks and challenges in different career stages, such as early, middle, and late career, independent on their chronological age (Slocum and Cron 1985). For instance, many refugees might have to retrain and start careers in a different occupational field because their previous qualifications are not recognised or needed (Eastwood et al. 2006). Consistently, recent research in vocational psychology has highlighted the importance of adopting a lifespan developmental perspective on career development (Fasbender and Deller 2017; Ng and Feldman 2012). In addition, researchers and practitioners could focus on the interplay between various work and non-work roles held by refugees. Specifically, many refugees are not only job seekers or employees but also spouses, parents, grandparents, colleagues, or supervisors. In sum, it is important to take a contextualised and holistic perspective that takes various life roles into account when examining or guiding refugees' career development.

Career Construction Theory

Career construction theory differs from social cognitive career theory and life-span life-space theory in that it emphasises how people construct their careers by imposing meaning on their vocational experiences and actions in the form, for instance, of life stories that guide career behaviour (Savickas 2013; Savickas et al. 2009). Moreover, the theory suggests that people adapt to various career tasks, transitions, and traumas by drawing on psychosocial resources that they accumulate across the lifespan (Rudolph et al. 2017b; Savickas 1997). A central construct in career construction theory is career adaptability, which is defined as a psychosocial resource that helps individuals deal successfully with work and career tasks and challenges (Savickas 1997; Zacher 2014). Similar to social cognitive career theory and life-span life-space theory, career construction theory has differential and developmental foci (Savickas 2013). It explores individual differences in vocational personality types and interests and examines psychosocial adaptation and coping processes over time. These two foci, in combination with the dynamic and constructivist approach of exploring how life themes impose meaning on vocational experiences and behaviour, allow career researchers and vocational counsellors to understand how refugees construct their careers.

Career construction theory could be fruitfully applied to the career development of refugees by investigating how refugees differ from each other and from non-refugees in their vocational personality types and interests, how refugees draw on psychosocial resources and competencies to adapt to various career tasks, transitions, and traumas, and how refugees impose meaning on their often-fragmented career development. Particularly the dynamic and constructionist perspective might be useful to interpret and integrate refugees' memories of earlier vocational

experiences, present vocational experiences, and future career aspirations. Indeed, Pierce and Gibbons (2012) suggest that constructivist approaches to career counselling provide refugees with the opportunity to integrate their past life and work experiences with their new lives and careers in the host country. In sum, career construction theory and practice emphasise individuals' subjective experiences and narrative accounts of their own career development (Savickas 2001). Vocational researchers and practitioners could make use of refugees' "subjective careers," "career stories," and "life themes" to better understand and provide guidance to refugees regarding their career-related decisions and behaviours.

Review of the Literature on the Career Development of Refugees

Current theorising and empirical evidence on the career development of refugees, including the topics of vocational aspirations, job search, entering employment, adapting to career tasks and challenges, and career counselling intervention, is very limited (Morrice 2011). However, in the context of the global refugee crisis, including the large-scale displacement of people from Syria and Iraq since 2015, researchers in the fields of vocational and organisational psychology have begun to increasingly address these topics. This is reflected in a special issue with 12 conceptual, qualitative, quantitative, and mixed-method articles on the vocational behaviour of refugees in the *Journal of Vocational Behavior* (Newman et al. 2018a). Most of the studies reported in these articles focus on the individual level of analysis (i.e., refugees' experiences and behaviour) and are reviewed in the following sections.

Another special issue on the impact of the global refugee crisis on the career ecosystem (see Baruch 2015) was in preparation for publication in the journal *Career Development International* at the time of writing of this chapter (Richardson et al. 2018). As Richardson et al. (2018) note in their call for papers, "management and career scholars have remained relatively silent about the implications of the [global refugee] crisis for business and management practices and for individual careers and career systems in particular." Thus, in contrast to Newman and colleagues' (2018a) special issue, this forthcoming special issue focuses more on the contextual antecedents and consequences of refugees' career development.

In the following sections, I summarise the available theoretical and empirical literature on the career development of refugees. I begin by reviewing articles that have addressed vocational aspirations and the school-to-work transition of students with refugee backgrounds. Second, I review articles on the job search of refugees and the individual and contextual factors that play a role in the process of finding and entering employment and integration into the labour market of the host country. Third, I review articles that focus on how refugees navigate and adapt to various work and career tasks and challenges once they have found a job. Finally, I review articles that explored the effectiveness of career counselling interventions for refugees. For each

article, I summarise the main research questions, methods, and key findings. In addition, whenever relevant, I describe the theoretical frameworks from the fields of vocational behaviour and career development, including social-cognitive career theory, life-span life-space theory, career construction theory, that the authors have used to develop their hypotheses.

Development of Vocational Aspirations Among Students with Refugee Backgrounds

Only very few studies focused on academic experiences, development of vocational and career aspirations, and experiences of the school-to-work transition of (predominantly younger) refugees. For instance, Tlhabano and Schweitzer (2007) conducted a qualitative study in which they explored young Sudanese and Somali refugees' visions, hopes, and desires and how these psychological constructs impact their vocational aspirations across three time periods (i.e., life in the country of origin, transit, and resettlement). The authors found that refugees had high vocational ambitions despite facing various challenges, including disruption to their schooling and higher education in their country of origin as well as language difficulties after resettlement. In another article, Nunn et al. (2014) reported the results of an interview study with young people who migrated to Australia as refugees during adolescence. According to the authors, these young people with refugee backgrounds face several unique opportunities and challenges with regard to employment. Specifically, findings suggest that a complex and dynamic interplay between career aspirations, family obligations, educational opportunities, and social networks shape these young people's employment trajectories.

In another recent study, Prokop (2013) used a constructivist approach to explore coping strategies used by students with refugee backgrounds in order to persist in their post-secondary careers and technical education programs. Findings suggest that while students did not hesitate to ask their instructors for assistance, they tended to not make effective use of academic and social programs and services offered by the university or broader community. The primary reason for this lack of engagement with support services seemed to be that students held multiple life roles and had problems managing their time across these roles. Also using a qualitative case study approach, another study examined the importance of various career capital resources, particularly human capital (e.g., schooling, educational experiences; Becker 1975), of African refugees during the transition from the post-education stage to employment in Australia (King 2013). Specifically, King (2013) identified six factors that were particularly important in this transition: previous schooling received, English language skills, Australian mainstream schooling challenges and support, family support, academic achievement, and post-school preparation (see also Lenette and Ingamells 2013, for a description of a specific university initiative to facilitate pathways to employment for skilled migrants and refugees). Finally,

O'Reilly (2015) argued that students from refugee backgrounds are in particular need for careful vocational guidance at the end of high school. The author describes a career development activity for refugee students called "life story for life design." The activity conceptualises a career as a continuous, lifelong series of events and experiences and as a story that people tell about their own lives.

In summary, only relatively few qualitative-empirical studies have focused on students with refugee backgrounds and how these students view their vocational future and manage the school-to-work transition. Further research, both qualitative and quantitative, guided by well-established career theories and conceptual models specific to the situation of students with refugee backgrounds is clearly needed to gain further insights into this important topic.

Job Search and Labour Market Integration

Job search involves active behaviours that help individuals transition from school, higher education, or unemployment to employment (e.g., writing and submitting applications). Researchers typically focus on both individual-level factors (e.g., personality, motives, self-efficacy) as well as perceived and/or objective contextual factors (e.g., perceived environmental opportunities and constraints as per social-cognitive career theory, dearth of job openings in specific fields) to predict people's engagement in job search activities. Job search activities, in turn, are examined in relation to people's job search success and integration into the labour market (Kanfer et al. 2001; Zacher 2013). My literature search revealed several studies that have focused on individual and contextual predictors of refugees' job search experiences and behaviour as well as successful labour market integration. Willott and Stevenson (2013) conducted a study on attitudes toward work and job search experiences of professionally qualified refugees. Findings suggest that these refugees are initially highly motivated to work, strongly identified with their profession, but experience significant declines in self-esteem if they cannot find appropriate employment. Importantly, length of time spent in the host country was negatively related to refugees' optimism with regard to returning to their profession (see also Phillimore and Goodson 2006, for refugees' employment experiences in the United Kingdom). Two other studies similarly suggest that it is particularly important to provide particular support to individuals who have been refugees for a relatively long time. First, Codell et al. (2011) found in a sample of 85 refugees between 18 and 54 years that the length of time individuals spent as refugees is negatively related to their ability to secure meaningful employment. Second, a study with data collected over 10 years in Switzerland similarly found that the length of time that refugees wait for a decision on their asylum status is negatively associated with subsequent successful employment integration (Hainmueller et al. 2016). Hainmueller et al. (2016) further show that psychological discouragement mediates the negative association between time waiting for a decision and refugees' successful employment integration.

Several recent studies published in Newman and colleagues' (2018a) special issue on the vocational behaviour of refugees have used career construction theory (Savickas 2005) to gain a better understanding of refugees' job search and labour market integration. First, Pajic et al. (2018) examined antecedents of refugees' job search self-efficacy (i.e., the belief that they have the abilities to successfully find a job; Guan et al. 2013). The authors ground their hypotheses in career construction theory, and specifically the career construction model of adaptation that posits associations among adaptivity traits, adaptability resources, adapting responses, and adaptation results (Rudolph et al. 2017b; Savickas and Porfeli 2012). Specifically, Pajic et al. (2018) examined whether career adaptability mediates the relationship between psychological capital (i.e., a higher-order construct composed of hope, resilience, optimism, and generalised self-efficacy) and job search self-efficacy, and whether administrative and social barriers moderate the direct effect from psychological capital to career adaptability. Pajic et al. (2018) collected survey data from over 300 Syrian refugees re-settled in the Netherlands (59%) and Greece (41%). Results showed that psychological capital was indeed positively and indirectly related to job search self-efficacy via career adaptability. Social challenges (e.g., employment barriers, such as cultural and social differences) moderated this indirect effect, such that high compared to low perceived social barriers resulted in a weaker indirect effect. Surprisingly, and in contrast to expectations, high as compared to low perceived administrative barriers strengthened the indirect effect. The authors suggest that their results contribute to research on the career construction model of adaptation by highlighting the need to consider additional adaptability resources of refugees. In terms of practical implications, the findings suggest that it is necessary to reduce social barriers and to develop refugees' psychological capital and career adaptability through training programs and career counselling methods.

Another recent study focused on predicting refugees' career adaptability as an important psychosocial resource that can contribute to the integration of refugees into the labour market and host society (Obschonka et al. 2018). Obschonka et al. (2018) emphasised that increased uncertainty and rapid change in the world of work require personal agency or initiative. In their quantitative survey study, the authors examined integration processes of newly-arrived Syrian refugees in Germany, who encountered high levels of uncertainty, but also new opportunities. Results showed that self-efficacy and resilience positively predicted entrepreneurial alertness, which in turn positively predicted entrepreneurial intentions and career adaptability. Thus, this study highlights the potential importance of refugees' personality and entrepreneurial cognitions for labour market integration (see also Straub et al. 2017, for another study that, based on career construction theory, aimed to understand whether and how refugees engage in entrepreneurship to reconstruct their career in their host country).

The link between refugees' career adaptability and successful integration into the labour market is also the topic of a theory development article by Campion (2018). The author proposes a refugee-specific job-search model based on career adaptability, personal and structural barriers, and successful resettlement and labour market integration. While the vocational literature shows that high career adaptability is

generally linked to favourable career outcomes (Rudolph et al. 2017a; Rudolph et al. 2017b), Campion (2018) suggests that this may not necessarily be the case for refugees who frequently experience downward occupational mobility. Instead, she assumes that refugees with high levels of career adaptability prioritise the creation and use of social networks over the acquisition of adequate and high-quality jobs. The prioritisation, generation and use of social networks during the job search process by career adaptive refugees is expected to positively impact their physical and mental health, strength of social ties, and life satisfaction (i.e., subjective career and resettlement success). In contrast, the model assumes that this prioritisation limits the objective resettlement and career success of career adaptive refugees (i.e., lower status jobs, low pay, poor language ability).

Campion (2018) proposes a number of barriers that further strengthen the link between career adaptability and social network generation and use. Specifically, when discrimination threat is high and host country language ability is low, career adaptive refugees should focus even more on social network generation and use during the job search process. Moreover, Campion (2018) suggests that a decrease between previous employment and current job level in the host country will be greater for more highly educated refugees. Further research is needed to examine the model's propositions and applications. This research has not only the potential to contribute to the literature on refugees' career development, but also expand knowledge on the boundary conditions of the effects of career adaptability on indicators of career success.

In addition to personality characteristics and psychosocial resources such as psychological capital, self-efficacy, resilience, and career adaptability, researchers have investigated different forms of "capital" as predictors of labour market entry and integration. In a study with over 500 refugees conducted in Canada, Lamba (2003) examined the role of human capital and social capital (e.g., social networks and support; Luthans and Youssef 2004) for refugees' quality of employment. Findings suggest that refugees use both family and ethnic-group relationships as social resources in the job search process. However, many refugees experience that their human capital (e.g., previous qualifications) has little or no value in the labour market of their host country and that their social networks cannot buffer their downward occupational mobility. In a complementary study with refugees from Somalia, Iran, Afghanistan, Iraq, and the former Yugoslavia who resettled in the Netherlands, De Vroome and Van Tubergen (2010) found that host country specific education, work experience, language proficiency, and contacts with locals are positively associated with chances of finding employment and occupational status. These results are consistent with human and social capital theories.

Another relevant study focused on the role of formal employment service providers and informal social networks for refugees who are searching for a job in Australia (Torezani et al. 2008). The authors collected survey data from 150 refugees from former Yugoslavia, as well as African and Middle Eastern backgrounds, as well as interview data from employees working for employment service providers. Findings showed a mismatch between service providers' and refugees' perceptions and expectations of the employment services. Specifically, refugees perceived that the

employment services (especially job search training) provided them with the opportunity to develop their social networks rather than to acquire job search-relevant skills. Torezani et al. (2008) used the concept of “linking social capital”—people’s ability to leverage resources obtained from institutions beyond their immediate communities—to interpret their findings.

Gericke et al. (2018) conducted qualitative interviews with a sample of Syrian refugees in Germany, who already held permanent or temporary jobs. They discuss a four-stage model of labour market integration that outlines links between social capital and four stages: early integration support, support preparing for labour market entry, support entering the labour market, and support at work. Results of the interviews revealed that four types of social capital can be supportive and accessible to refugees: Bonding and bridging and bonding as well as vertical and horizontal social capital (see Granovetter 1973). Bonding social capital exists when people in close networks have similar backgrounds and characteristics, and when they share personal norms and values. Bridging social capital exists when people with weak ties connect to people from other social groups and share information and resources with them. Furthermore, taking into account relative social location, vertical social capital refers to ties between people with different social backgrounds, and horizontal social capital entails ties between people with similar social backgrounds, knowledge, and resources (Granovetter 1973).

With regard to gaining access to the labour market and maintaining employment, Gericke et al. (2018) found that vertical bridging social capital was the most valuable resource for securing adequate employment. In contrast, their results suggest that horizontal bonding social capital and independent job-searching methods tend to result in refugees obtaining low-skilled work or even becoming underemployed. These findings suggest that refugees need support particularly with regard to developing vertical bridging social networks.

Another qualitative study focused more broadly on the role of career capital of refugees searching for a job, including cultural, social, and economic capital. The researchers also investigated how these different forms of capital contribute labour market integration (Eggenhofer-Rehart et al. 2018). The study was carried out in Austria, which at the peak of the global refugee crisis in 2015 and 2016 received high numbers of asylum seekers. However, the authors suggest that refugees often encounter hostile and unfamiliar processes in the country and, thus, successful integration into employment is rather limited. Based on Bourdieu’s theory of practice (Bourdieu 1977) and a series of semi-structured interviews with Afghan and Syrian refugee job seekers, Eggenhofer-Rehart et al. (2018) explore how refugees relocate, acquire, and convert their career capital when entering a labour market that is not familiar to them. Results of the study suggest that when refugees attempt to integrate into the labour market of their host country, all forms of their career capital are under- and devaluated. Moreover, refugees who attempt to make use of their cultural capital face unfamiliar rules, threats to their vocational identity, and status loss. The authors suggest that high levels of proactivity (i.e., self-starting, future- and change-oriented behaviour) are required on part of refugees to acquire new career capital or transform existing career capital into forms of career capital that are potentially more valued by their host country.

Refugees' proactivity in dealing with barriers in the resettlement process is also the topic of a recent qualitative study by Wehrle et al. (2018). The authors focus on the negative consequences of barriers that refugees face during their integration into German society and the labour market. Specifically, Wehrle et al. (2018) argue that these barriers can harm refugees' fundamental identity needs for self-worth, distinctiveness, continuity, and control. The interviews highlight that refugees can develop proactive coping responses (i.e., protecting previous identities, restructuring their identities to adjust to their new situation) to deal successfully with these identity threats that results from various integration barriers. Interestingly, findings further suggest that refugees can achieve positive psychological growth, despite experiencing adversity in the resettlement and integration process, but only if they possess sufficient psychosocial resources and proactive coping strategies.

Moving on to a different, but related topic, vocational researchers have also examined links between more employment-related stressors and refugees' coping strategies in the process of labour market integration (Baranik et al. 2018). Drawing on the transactional theory of stress and coping (Lazarus and Folkman 1984), Baranik et al. (2018) used a mixed-method research design and analysed the content of open-ended survey responses collected from refugees in the United States. Results showed that the most frequently reported stressor (31% of answers) was "access and opportunity," which includes refugees' feelings that their previous work experience is not valued during job search, job search difficulties, and exploitation (e.g., working in a job with low salary). Other stressors mentioned were "acculturative stressors" (22%, e.g. learning the language of the host country), discrimination (13%), and interpersonal stressors (11%). The most frequently used coping strategies identified were "reflection and relaxation" (25%), problem-solving actions (24%), social resources (18%), and refugee-specific coping (17%). The latter coping strategy includes improving language skills, participation in assimilation and multicultural activities, and seeking social support from other refugees. Baranik et al. (2018) conducted further quantitative analyses using their survey data, which show that discrimination stressors, but not the other vocational stressors identified in the study, related positively to refugees' experiences of anxiety, depression, and sleeping disturbances. Consistent with the stress literature, findings further suggest that the use of avoidance-oriented coping strategies further increases strain-related outcomes. Based on their study results, the authors suggest developing programs to hire more refugees, broaden diversity and inclusion initiatives, and to provide refugees with actionable advice regarding stress management.

While the previous studies reviewed focus on processes across relatively short time periods (e.g., a few weeks, months), the experience of displacement in people's lives can also have consequences for their employment outcomes several years or decades later. Using longitudinal data collected from blue-collar workers in Sweden, Lundborg (2013) examined the integration of refugees into the labour market. The study showed that refugee age is positively, and time in the host country is negatively related to time spent in unemployment. Moreover, refugees from culturally distant countries (e.g., Iran, Iraq) spent more time in unemployment than refugees from less culturally distant countries (e.g., Eastern Europe; for further studies on

refugees' employment experiences and labour market integration in Sweden, see Bevelander 2011; Blight et al. 2006; Frykman 2012). Somewhat in contrast to the findings by Lundborg (2013), however, a study by Fozdar (2012) found that refugees from Muslim countries did not find it more difficult than other refugees to adapt to Australian culture.

In another longitudinal study, Ivlevs and Veliziotis (2018) examined labour market outcomes of internally displaced persons (i.e., people who flee from persecution and conflict but stay in their own country) 10–15 years after displacement in nine post-socialist countries of Eastern Europe and Central Asia (e.g. Armenia, Croatia, Russia). They developed their assumptions based on the theory of cumulative disadvantage (O'Rand 1996). Their sample consisted of over 10,000 individuals in the *Life in Transition II* study conducted by the European Bank of Reconstruction and Development and the World Bank in 2010. The authors compared displaced persons (10%) with those not affected by conflict (nearly 85%; the remaining participants were “conflict-affected non-movers”) with regard to several vocational outcomes, including employment status, informal work, and job satisfaction. Results revealed that the likelihood of being short- or long-term unemployed and to have experienced job loss is higher for persons displaced by conflict over a decade ago. Moreover, displaced women face greater disadvantage with regard to longer-term employment than men, and younger displaced persons were more interested in further education and training than younger persons not affected by conflict. Further, displaced persons were more likely to work in informal employment to support their families, but, somewhat surprisingly, there were no differences with regard to job satisfaction. Overall, the study's findings provide support for the theory of cumulative disadvantage and highlight the need for providing special support for displaced women as well as further education to younger displaced persons.

A qualitative study by Abkhezr et al. (2018) also emphasises the particularly vulnerable position of female refugees in the displacement and resettlement process. The authors base their inquiry on a social constructivist framework. They conducted semi-structured interviews with young African women, who provided detailed narrative accounts of their gendered experiences of oppression and abuse during the displacement and resettlement process. The interviews suggest that the women's personal agency and voice had been stifled in the transition from the poor conditions in their home country to their new and developed host country, Australia. Thus, similar to the theoretical article by Campion (2018), this research also challenges traditional perspectives on personal agency in the vocational context. However, the study also suggests that targeted career interventions with female refugees can result in positive outcomes such as re-establishing a sense of personal agency, mattering, and voice. In another study, Gaillard and Hughes (2014) explored how social initiatives could facilitate employment of female Sudanese refugees in Australia. Interestingly, the study found that initiatives that focus on the use of existing skills may create new opportunities for refugees in the labour market, whereas initiatives that teach new skills are more likely to link refugees to existing opportunities in the labour market (see also Warriner 2004).

In summary, studies on refugees' job search and labour market integration suggest that psychological characteristics related to personal agency (e.g., psychological capital including self-efficacy and resilience, career adaptability) can play an important role for refugees' successful integration into the labour market of their host country. Given favourable conditions (i.e., low personal, social, and structural barriers), these characteristics should positively impact refugees' job search self-efficacy and success as well as entrepreneurial intentions. Moreover, refugees' bridging social capital and the broader construct of career capital can contribute to securing positive employment outcomes, such as finding adequate and secure jobs. Nevertheless, it is important that policy makers provide special support for particularly vulnerable subgroups of refugees, such as women and those with low levels of prior education.

With regard to theoretical frameworks, a number of recent studies have fruitfully applied career construction theory and related social constructivist theories to investigate how refugees attempt to find jobs and integrate into the labour market. Many of these studies focus on the key concept of career adaptability and its career-related consequences. This research complements earlier work that has used social cognitive career theory to explore how displacement circumstances, stressors, acculturation patterns, and oppression impact the career development of refugees (Yakushko et al. 2008). However, it is also noteworthy that several studies used additional theoretical frameworks and concepts from diverse literatures, such as social and career capital, identity development, and occupational stress and coping.

Navigating Work and Career Tasks and Challenges

In addition to studies on job search and labour market integration of refugees, research has focused on how refugees deal with work and career challenges once they have found a job. Importantly, research suggests that refugees often decrease in occupational status in their host country, and that they are more likely to work in rather undesirable jobs in a segmented labour market. For instance, a study by Colic-Peisker and Tilbury (2006) examined employment niches for newly arrived refugees in Australia. These niches include cleaning services, care of the aged, meat processing, taxi driving, security, and building. With the exception of the building industry, these jobs are low-status and low-paid jobs that are avoided by locals. The authors suggest that several potential mechanisms exist that relegate refugees to these undesirable jobs. These mechanisms include the non-recognition of previous qualifications, race and culture-based discrimination by employers, a lack of mainstream social networks, and governmental attempts to fill low-skilled jobs with migrants (see also Shutes 2011, for reasons why employment agencies may focus on placing refugees in 'easy to access', low-skilled and low-paid jobs).

Other studies have focused on how refugees adapt to their new employment situation and unmet expectations. Baran et al. (2018) report two studies with refugees in the United States. Drawing on the social cognitive career theory and psychological contract theory, the authors examine refugees' pre-relocation expectations concerning their future vocational situation in the host country and the question how to cope with unmet expectations upon arrival. For their first study, Baran et al. (2018) conducted in-depth interviews with refugees and employees of refugee assistance organisations. They identified several themes related to refugees' expectations and experiences with regard to employment in their host country. For instance, interviewees talked about resilience-building obstacles and challenges, turning points and status changes, expectations versus reality, support, self-evaluations, giving up, self-sufficiency versus thriving, and learned dependency. Findings of the second study were based on a survey with 60 refugees mostly from Afghanistan and Iraq. They suggest that some refugees have unrealistically high expectations regarding employment when they arrive in their host country. Consequences of these expectations not being met include the experience of underemployment, psychological contract breach, reduced job and life satisfaction, and thoughts about returning to their home country. Thus, Baran et al. (2018) findings emphasise the importance of managing vocational expectations among refugees by providing them, for instance, with information about the host country's labour market.

Austin and Este (2001) conducted interviews with nine male refugees to explore how they adapt to working life in their host country, Canada. The men reported that significant underemployment, racism, exploitation, and threat of job loss were major sources of stress to them. In particular, they felt powerless, alienated, frustrated and angry. These feelings, in turn, affected their relationships with their family. The authors suggest that to help refugees adapt to their new working lives, host countries and organisations should recognise foreign qualifications, possibilities to upgrade qualifications and improve language skills, and combat discrimination in the workplace. Another qualitative study by Knappert et al. (2018) examined how national-level factors and organisational employment practices are associated with refugees' experiences of inclusion or exclusion at work. The authors collected interview data from Syrian refugees, employers, and experts from governmental and nongovernmental organisations in Turkey. Knappert et al. (2018) findings suggest that national-level facilitators of exclusion at work include institutional voids, societal rejection, and exploitation legitimisation. These factors facilitate precarious employment practices within organisations, such as access to low-skilled jobs only, unequal compensation, and a lack of developmental opportunities. Precarious employment practices, in turn, are linked with negative individual implications, such as feelings of exclusion and abuse, frustrated expectations, and subordination. The authors suggest that these processes may be particularly disadvantageous for female refugees. Specifically, when traditional gender roles exist both in their home and host societies, it is more likely that women's exclusion at work is reinforced, women may be sexually objectified and exploited, and their dependency and despair can be further amplified.

Finally, vocational researchers have also focused on the effects of work characteristics and organisational climate on refugees' work-related experiences. A study by Newman et al. (2018c) examined how perceived diversity climate is associated with work attitudes of refugee employees, as well as the psychological mechanisms underlying these associations. The authors collected data at two measurement points, 6 months apart, from 135 refugees in Australia, who had four different ethnic backgrounds (i.e., Iranian, Iraqi, Afghanistani/Hazara, and Pakistani). In line with their hypotheses based on conservation of resources theory (Hobfoll 1989), Newman and colleagues (2018c) found that perceived diversity climate is positively associated with affective organisational commitment of refugee employees, and that psychological capital (i.e., a higher-order factor composed of hope, optimism, resilience, and self-efficacy; Luthans et al. 2007) mediates this relationship. In addition, consistent with propositions of rejection sensitivity theory (Downey and Feldman 1996), the authors also find that the links of perceived diversity climate with affective organisational commitment and turnover intentions through psychological capital are stronger when employees identify more strongly with their ethnic group. Overall, the findings suggest that refugee employees might react differently to organisations' diversity policies, practices, and procedures, depending on factors such as psychological capital and social identification.

In another study, the same authors (Newman et al. 2018b) investigated how social support from work and non-work domains relates to refugee employees' well-being, again mediated by refugees' psychological capital. The authors collected survey data from 190 refugee employees living in Australia. Results showed that perceived organisational support and perceived family support, but not perceived supervisor support, are positively related to well-being of refugee employees. Psychological capital was found to fully mediate the association between perceived organisational support and well-being, and partially mediate the association between perceived family support and well-being. Again, these findings emphasise the importance of a supportive environment and psychological capital for refugee employees.

In summary, research on how refugees navigate their new work and career tasks and challenges has used a broad array of theoretical frameworks and methodological approaches. Findings suggest that both individual (e.g. qualifications, prior expectations) as well as contextual (e.g., employment practices, diversity climate, support) have important influences on refugees' vocational adjustment and well-being. Interestingly, some authors have combined career development theories with other theoretical frameworks, such as psychological contract theory, conservation of resources theory, and rejection sensitivity theory. Future research should increasingly use more complex longitudinal study designs, as these mitigate methodological problems (e.g., common method bias) and allow stronger inferences regarding causality. In particular, a number of studies in this area of research tested mediation effects based on cross-sectional data, which leads to substandard inferences (see Maxwell and Cole 2007).

Career Counselling Interventions

Only relatively few articles have addressed vocational or career counselling interventions specifically for refugees (Bragança 2017). In an early publication, Moehling (2008) suggests that career guidance education, particularly when designed for younger refugees, can play an important role for refugees' feelings of belonging, adaptation, acculturation, mental, and long-term-resettlement success. The author argues that career guidance education is particularly important given that most refugees have experienced traumatic events in their home countries and many experience their new situations in the host countries as challenging. Moehling (2008) concludes that effective career guidance education has the potential to offer the same educational, social, and economic benefits to refugee youth as for general student populations.

In a more recent article, Schultheiss et al. (2011) describe a career intervention, the "life CV," for refugees and asylum seekers. The intervention is based on a relational cultural paradigm and a life design career model. The authors propose that by creating a life CV and engaging in the associated sensemaking process, refugees gain different perspectives, self-insights, and presentation techniques useful for the job search process (see also Hughes and Scott 2013, for a similar career intervention developed for students with refugee backgrounds). In another article, Słowik (2014) proposes a new method called "life space mapping" for use by career counsellors, which can be used to help refugees reflect on and construct their careers. The author designed the method particularly for multicultural counselling, and it takes diverse life experiences and cultural values of the clients into account. Słowik (2014) reports having used "life space mapping" in career guidance and biographical counselling with several refugees and asylum-seekers and that the method encouraged refugees to more strongly value and use their biographical and professional experience for constructing their careers.

Finally, Abkhezr et al. (2015) summarised important contextual and practical considerations for career counsellors working with young people with refugee backgrounds in Australia. Most importantly, these considerations include enhanced sensitivity to diversity and multicultural issues. The authors point out that career counselling has its roots in social justice and, therefore, can be conceived as an important contextual resource that can help refugees integrate into mainstream society (see also Abkhezr and McMahon 2017).

Discussion

The overarching goal of this chapter was to gain a better understanding of the career development of refugees. To this end, in the previous sections, I applied three prominent theoretical frameworks from the vocational literature to the unique situation of refugees. Furthermore, I used four overarching themes to summarise and integrate

the existing theoretical and empirical literature on refugees' career development. In the following, before concluding this chapter, I discuss a number of implications for future vocational research and practice.

Implications for Future Theorising and Empirical Research

In this chapter, I described how three widely used career development theories—social cognitive career theory (Lent et al. 1994), life-span life-space theory (Super 1980), and career construction theory (Savickas 2002)—could be fruitfully applied to investigate and guide refugees' career development. Interestingly, previous empirical research on refugees' career development, if based on career development theories at all, has mostly used career construction theory, and particularly the central construct of career adaptability. In contrast, only few studies so far have adopted social cognitive career theory, and no study has explicitly referred to life-span life-space theory. Thus, a first recommendation is that future empirical studies on refugees' career development make greater use of established career development theories.

Life-span life-space theory could be fruitfully applied to study how the interplay between various life roles held by refugees (e.g., employee, spouse, parent) impacts their time and energy investments and, consequently, their career development. An important insight from this chapter is also that the integration of career development theories with theories from other fields, such as occupational stress and entrepreneurship research, can be a useful approach to understanding refugees' career development. Moreover, the development of new conceptual frameworks (e.g., Campion 2018) and conducting qualitative studies to build new theory (e.g., Gericke et al. 2018) on refugees' career development are laudable and valuable efforts. In terms of more specific topics within this area of research, most studies have focused on refugees' job search and integration into the labour market, as well as refugees' adaptation to work and career tasks and challenges. In contrast, additional studies are needed that focus on the development of vocational aspirations and the school-to-work transition of students with refugee backgrounds, as well as the development and evaluation of career counselling interventions with refugees.

Empirical research with refugees, particularly large quantitative studies, is a great challenge, because refugees are a hidden, hard-to-reach, and vulnerable population (Ellard-Gray et al. 2015). Ellard-Gray et al. (2015) suggest that when studying vulnerable populations such as refugees, it very important to pay attention to participant trust, risks, and resource constraints. Thus, it is not surprising that most studies on refugees' career development to date are qualitative and exploratory in nature and make use of very small and non-representative samples. In contrast, quantitative studies with more complex designs, such as multiple measurement waves, self- and other-reports, and standardised measurements are more difficult to conduct and, thus, still very rare (e.g., Ivlevs and Veliziotis 2018; Newman et al.

2018b). However, it is important to increase methodological rigor and generalisability in the study of refugees' career development. Increased methodological rigor can help mitigate problems such as common method bias and to allow stronger conclusions regarding causality. Moreover, it can aid a better understanding of the mechanisms and boundary conditions of associations between individual and contextual predictors and career-related outcomes.

The use of longitudinal study designs is particularly important in research on career development, which often has a lifespan focus. Moreover, research reviewed in this chapter shows that temporal factors, such as the length of time as a refugee or the length of time in the host country, are important factors that influence successful employment integration and vocational adjustment. Finally, additional research on more specific subpopulations of refugees, such as women/men, younger/older refugees, and refugees from different cultural backgrounds (e.g., Muslims) is needed to enhance our understanding of their specific experiences and needs. For instance, a few studies suggest that female refugees are a particularly vulnerable subpopulation (e.g., Gaillard and Hughes 2014) and, thus, it is important to identify, improve, and evaluate targeted forms of support for this group of refugees.

Practical Implications

Findings of the studies reviewed in this chapter suggest a number of implications for vocational practice. As noted by Richardson et al. (2018), the global refugee crisis has created several opportunities for caring and service professions, including career counsellors and social workers (see also Takeda 2000). Vocational practitioners can play an important role for refugees' integration into the labour market, and for empowering refugees to deal with various work and career-related task and challenges (Tomlinson and Egan 2002). First, vocational practitioners could offer guidance particularly to those refugees who arrive in their host countries with high and possibly unrealistic expectations and aspirations. When these expectations are not met, for instance because refugees cannot work in their profession in the host country and instead have to work in precarious jobs, refugees who are unprepared for these changes can suffer decreases in health and well-being (Baran et al. 2018). Counsellors could work with refugees to develop more realistic expectations and to help them prepare meet the requirements in the host country.

Second, practitioners could assist refugees who experience challenges due to multiple life roles that require investments of time and energy, possibly leading to roles conflict, reduced well-being, an unsuccessful integration. Research by Ivlevs and Veliziotis (2018) found that displaced women face greater disadvantage with regard to longer-term employment than men. Thus, it may be particularly important to offer career counselling and support to female refugees, who often have to juggle multiple life roles and consequently face greater challenges in the resettlement process (Yakushko 2006).

Third, practitioners could provide guidance to refugees in the often frustrating experience of job search. Research suggests that it is particularly important to enhance refugees' psychosocial resources (e.g., career adaptability), career capital, proactive behaviour, and coping skills to navigate such employment-related challenges.

Fourth, practitioners within organisations should create a welcoming and supportive corporate climate for refugees. This involves, for instance, providing instrumental, informational, and socioemotional assistance and combating discrimination in various employment practices.

Finally, it is also important to train vocational practitioners themselves to work with clients from refugee backgrounds (Pierce and Gibbons 2012). For instance, cultural awareness and sensitivity training programs might prove useful in this regard.

Conclusion

The global refugee crisis has increased the interest of vocational researchers and practitioners into this extremely vulnerable population. This chapter focused on the career development of refugees in their host countries, with an emphasis on the development of vocational aspirations among students with refugee backgrounds, job search and finding adequate employment, adaptation to work and career tasks and challenges, and career counselling interventions. Education and employment are key contributors to successful integration into mainstream society, and it is important to inform vocational practice by rigorous evidence. The studies reviewed in this chapter suggest that refugees encounter various challenges and threats in their host countries, and that integration and career success are the results of a complex interplay between multiple individual and contextual influences. Future research on refugees' career development could make use of social cognitive career theory, life-span life-space theory, and career construction theory to gain an even better understanding of the factors that play an important role in the career development of refugees. In this regard, it is important for research to examine the interplay of individual differences, contextual factors, and agentic behaviours as predictors of career development and success. Finally, the research findings reviewed in this chapter suggest that vocational practitioners can be an important source of instrumental, informational, and socioemotional support for refugees. In particular, career counsellors may contribute to refugees' career development and success by helping them integrate their past professional experiences and future vocational aspirations with current task and challenges in the host countries.

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Chapter 18

Guidance for Girls and Women



Jenny Bimrose

Abstract The depth and breadth of gender inequality worldwide is persistent and pernicious. The potency of the social injustice emanating from gender inequality becomes particularly apparent when viewed through the lens of intersectionality, where gender collides with other structural variables that correlate strongly with social disadvantage like ethnicity, age, socio-economic class, sexual orientation and disability. In this chapter, indicators of this type of inequality are examined, like the gender pay gap, occupational segregation, non-standard employment and sexual harassment. Approaches that offer more than traditional career theories for supporting girls and women through their career trajectories are considered. Scenarios, using the medium of case studies, explore the application of gender-sensitive approaches to career guidance practice. Since the purpose of career guidance is to assist each individual realise their true potential, practice frameworks need to be adopted that reflect the true experiences of girls and women.

Keywords Gender · Inequality · Labour market · Career theory

Gender is constructed and defined by societies. It used to refer to membership of one of the binary categories, masculine or feminine, which align, more or less, to two biological sexes, male and female (Bimrose 2017a). However, it is increasingly acknowledged that gender identities and presentations are complex, encompassing a range of variations that extend beyond male and female, for example, transvestite, transexual and transgender. Moreover, whilst distinct sets of attributes have been associated with the two biological sexes, these are not fixed. Gender boundaries are fluid. Consider, for example, the ways in which being male or being female have changed over, say, the past 20-year period. It is becoming more socially acceptable, for example, for men to enter jobs previously regarded the preserve of women (Ruspini et al. 2011) and increase their involvement in childcare and domestic responsibilities (Jacukowicz and Wężyk 2017). Such changes may occur not only

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within the same society over time but also across societies during any one period in history.

Shifts in attitudes and values have brought about different degrees of social change in various countries regarding gender roles and responsibilities (Oláh et al. 2014). However, analysis of labour market trends reveals that although female workers are more present in the workforce, globally, the process of inclusion continues to be slow:

Despite significant progress over the past century, women are still a long way from achieving gender equality in the workplace. In many parts of the world, women are still trapped in low-skilled work and work longer unpaid hours. (International Labour Organisation 2017, p. 1).

Because of the extent, depth and persistency of the inequality and disadvantage suffered by girls and women across the world, this chapter will consider the case for a gendered approach to career guidance and counselling with a special focus on these groups. This focus in no way diminishes the needs of boys and men. Indeed, research evidence highlights the particular challenges faced by this client group to career progression, like: the devaluation of their work; the loss of secure employment; more career shifts in lateral or downward directions; increasing ambivalence about the role of work in their lives (Ackah and Heaton 2004); and difficulties encountered when entering traditionally female jobs (Bagilhole and Cross 2006). However, these issues and those relating to other gender identities are beyond the scope of this chapter. Here, the nature of the barriers faced by girls and women as they make their transitions from education, into and through the labour market will be examined first. Second, it will consider selected career guidance and counselling approaches that have been developed, and/or adapted, specifically for this client group. Finally, it will present three case studies of women's career progression and the potential utility of selected theories.

Women and the Labour Market

Labour market participation of women of working age stands at around 50%, compared with about 75% of men (World Economic Forum 2016a). Particular countries, specifically Northern Africa, Western Asia and Southern Asia, have the most pronounced gender gaps, with slightly different trends discernible amongst different age groups. Probably because of increased educational opportunities, the participation of both women and men aged 15–24 years declined between 1995 and 2015, for example. Women aged 25–54, however, increased their labour force participation in most regions (most likely because of the need for dual income families) while men in the same age group remained the same or slightly declined. Finally, women aged 55–64 also increased their participation in the labour market because of changes in retirement age and pension reforms. (United Nations [UN] 2015). Alongside the steady increased participation in formal employment, it is worth noting that women

do about three times more unpaid work than men (World Economic Forum 2016a). Again, there are marked differences amongst countries.

In the most developed countries, labour force participation of women has steadily increased, though large cross-country differences are evident. For example, Turkey (36.2%) and South Africa (52.2%) have the lowest rates of women's labour force participation, with the highest recorded levels in Finland (74.1%) and Iceland (86.2%) (Organisation for Economic Cooperation and Development [OECD] 2017). Whilst various policies have been found to stimulate full-time participation (for example, childcare subsidies), the major determinants of labour market participation have been identified as: "female education, well-functioning labour markets (which translate into low unemployment) and cultural attitudes" (Jaumotte 2003, p. 6).

It should be remembered that achieving an accurate measure of women's labour market participation is not straightforward. Should the number employed be taken as an indication of their level of participation, or rather the hours worked? Using a measure of full-time equivalents (FTEs) is controversial. Its legitimacy as a measure of women's employment has been challenged, since it oversimplifies complex social changes like the shifting pattern of distribution of paid work between household members with dual-earner households on the increase (Bruegel 1996).

Irrespective of exactly how women's labour market participation is calculated, women's increased involvement in paid work is an important development in many countries across the world. The European Commission [EC] (2016) argues that: "it can provide a boost to economic growth, but also mitigate the social and financial risks of population ageing, which will put downward pressure on labour supply, with negative implications for material living standards and public finances" (p. 1). Yet despite the imperatives to increase participation of women, a recurring tension is their continued responsibilities in the domestic sphere. There is, in fact, little real evidence of fundamental change in the gendered division of labour. Changes that are discernible relate to the greater use of labour saving devices, the hiring of domestic help and falling birth rates, which combine to lower the levels of demand for domestic labour. However, these trends are being offset by increasing levels of elder care, commonly the responsibility of women. So, given steadily increasing levels of labour market participation, what employment patterns and types of commitment can be identified for women?

Employment Patterns and Commitment

Increased levels of economic activity have brought with them ever increasingly complex patterns of female labour market participation which, in turn, reflect different types and varying levels of commitment to paid employment. Our understanding of these aspects of women's labour market participation has been expanded and deepened by different academic disciplines like economics. The impact of parenthood is undeniably high, with the employment rate of women with children under the age of 6 more than 20 percentage points lower than the employment rate of childless women in some European countries, including Germany, Finland and the

UK (EC 2016). In the UK, it was believed that a single period of not working for childbirths and child-rearing was preceded and succeeded by employment (Hakim 1979), but this was quickly challenged by the discovery of more complex patterns of employment where women returned to work after childbirth and between childbirths (Dex 1984). Similarly, in the US, whilst the impact of marriage and motherhood on women's labour force participation was marked in 1970, with peaks and troughs coinciding with child-birth and child-care, by 2005 this particular pattern was no longer discernible. With the increasing recognition that early returns to work are of key importance to women's future economic prospects, together with the financial pressures associated with cost of living and consumer debt, a steady growth in employment patterns for women that have been minimally disrupted became evident (Smeaton 2006). These types of explanations of women's patterns of employment prominently featured economic factors. It was assumed that where men had higher incomes than women, the birth of children was thought likely to result in women withdrawing from the labour market to care for the family. Related to this explanation was the notion that highly educated women were less likely to leave the labour market after childbearing because the financial penalties of not working were greater. Other explanations were required, however, to account for the increasing complexity of working patterns. Economic arguments were extended to the relationship between costs of childcare and wage levels. So where affordable, high quality childcare was easily accessible, it was more likely that women returned to paid work (EC 2016). Legal entitlement to parental leave has also been found to have a positive impact on women's labour market participation (Steiber and Haas 2012). Low employment rates of older women (aged 54–64) may similarly reflect the lack of care support for both, or either grandchildren or dependent parents, since these types of (unpaid) care responsibilities are more likely to fall on the shoulders of women (EC 2016).

Alongside economic explanations of women's patterns of employment, others have evolved, including social-psychological and sociological models, with a focus on attitudes (Steiber and Haas 2012). One example came from sociologist Catherine Hakim, whose 'preference theory' (Hakim 2000), proved highly controversial, arguing as it did that women's career decisions are a matter of free choice, based on personal preference. Others hotly contested this assertion, focusing on structural constraints and cultural factors (Ginn et al. 1996; McRae 2003). Available evidence does indicate that women's gender attitudes and work values play a part in their career decision making, though this area requires more research, with the relationship between attitudes and behaviour needing careful interpretation (Steiber and Haas 2012). In addition to attitudes and values, both work intensification and the unequal domestic division of labour have emerged as key issues in understanding women's commitment to, and patterns of employment. On average, women continue to take the primary responsibility for domestic and care responsibilities. Even where gender role attitudes have become less traditional and as indicated above, little change has occurred in the gendered allocation of domestic duties. A comparison of gender role attitudes in three countries—Norway, Britain and the Czech Republic—found that men's involvement in household tasks had actually slowed

down (Crompton et al. 2005). In Sweden, regarded as one of the most family-friendly and gender equal countries in the world, the distribution of time spent by men compared with women on domestic work was found to be as unequal as it was a decade and a half previously (Thörnqvist 2006). Related to domestic responsibilities is the extent to which formal employment increasingly encroaches into domestic life. Boundaries between the public and private domains of work and home continue to be eroded by the intensification of work, characterised by, for example, long and unpredictable working hours and/or work outside formally contracted hours. This trend has particular implications for women shouldering the main responsibility for housework and caring who are consequently forced to develop various coping strategies to help manage the dual demands and stresses of paid employment and domestic duties (Hyman et al. 2005; Metz 2005).

What the research evidence confirms is that women as a group are diverse and that typologies may not adequately capture the complexity evident in different lifestyles and countries. This evidence can, however, add to our understanding. From a comparative analysis of women's employment in five countries (France, Russia, the Czech Republic, Britain and Norway), four orientations emerged. The study revealed that attitudes relating to employment for both men and women varied not only according to the occupational and national context but also to the stage reached in their life cycle. The four employment orientations were: first, where attempts are made to succeed in both employment and family life, without giving particular priority to either so that wherever necessary, compromises were made; second, where family and domestic life are given priority over formal employment; third, where goals related both to employment and family life are both actively pursued, or maximised, with equal vigour, without compromises being made in either domain; and fourth, where careers are given clear priority. An overall conclusion related to degree of choice women exercised in their career development: "To be sure, women can and do make choices – although in aggregate, their relative lack of power and resources relative to men means that both today and in the past, they have been less able to do so than the opposite sex" (p. 121) (Crompton and Harris 1998). One other study compared data from fourteen countries and similarly found that the structure of an individual's particular family situation influences both behaviour and preferences, with family responsibilities predicting women's preference for flexibility (Corrigall and Konrad 2006). Perhaps women's commitment to employment could, therefore, more usefully be conceptualised as fluctuating over time, according to the contexts in which they live their lives (Crompton and Harris 1998). Not only do work-related concerns and family issues change as women age, but the type of support provided by partners also changes, with important consequences for work-life balance and job satisfaction (Gordon and Whelan-Berry 2004). So it seems that women's employment patterns remain fluid and are consequently increasingly difficult to categorise:

There is no straightforward relationship between women's patterns of labour market participation and institutional arrangements, or with prevailing gender role values. Evidently, additional explanatory factors are necessary for a better understanding of cross-national differences in women's employment behaviour (Steiber and Haas 2012).

Women's labour market participation requires, therefore, an awareness and understanding of the complex interaction of context, culture, life-stage, perceived support and personality. A specific feature of context is the type of employment available. Part-time, and more recently, other non-standard forms of employment have become a particularly significant feature of women's employment patterns in many countries, together with the emergence of dual earning households.

Non-standard Forms of Employment

Whilst there has been a proliferation of non-standard forms of employment (NSFE), there is not yet an official definition. The International Labour Organization (ILO) proposes four categories: temporary employment; temporary agency work and other contractual arrangements involving multiple parties; ambiguous employment relationships; and part-time employment (ILO 2015). Temporary employment refers to where individuals are engaged for a specific period of time, and includes fixed-term, project or task-based contracts, as well as seasonal or casual work. Temporary agency work and other contractual arrangements relate to circumstances where individuals may be paid by a private employment agency to work for a third-party organisation. Ambiguous employment relationships occur when the respective rights and obligations of the parties concerned are not clear, or when inadequacies or gaps exist in the legislation. Finally, with part-time employment, the normal hours of work are fewer than those of comparable full-time workers, with many countries having specific legal thresholds that define part-time work in relation to full-time work. Sometimes, working arrangements may not include any fixed or predictable hours, with the employers under no obligation to provide a specific number of hours. NSFE are relevant to a contemporary exploration of women's position in the labour market because they are more prevalent among women, as well as among young people and the less-skilled and migrants, with negative consequences for security, income inequality and productivity (ILO 2015). Whilst it is by no means limited to industrialised countries, available research and data relate to these countries. Here, part-time employment will be considered as one indicator of NSFE that has a profound impact on women's labour market participation.

In nearly every country in the world, women are more likely to be found in part-time work than men. This probably reflects the greater amount of time that women devote to childcare and domestic responsibilities (ILO 2015). Part-time employment has been a key characteristic of women's participation in the labour market for some time, with women consistently taking a higher share than men. On average, a fifth of the working population in the EU has a part-time job. Of these, 8.7% are men compared with 32% of women (World Economic Forum 2016b). In the Netherlands, 75% of employed women worked part-time in 2015, with high rates also to be found in Germany, Austria, Sweden, the UK and Belgium (EC 2016). Of course, working part-time can represent individual preference, but it can also be a direct consequence of the lack of affordable care services and the unequal division

of unpaid work. Typically, it is associated with lower hourly pay and earnings and poor working conditions (EC 2016), so remains a powerful indicator of the type of structural disadvantage women suffer in developed labour markets around the world. Developing countries have lower rates of part-time waged employment; for example, part-time employment in 2012 was only 0.1% in Tunisia (ILO 2015). However, this probably relates to the way in which women are more likely than men to work in informal employment, which is notoriously difficult to record. For example, in South Asia, over 80% of women in non-agricultural jobs are in informal employment; in sub-Saharan Africa, 74%; and in Latin America and the Caribbean, 54%. In rural areas, many women derive their livelihoods from small-scale farming, almost always informal and often unpaid.

Part-time employment is incompatible with career progression because promotion is often biased towards full time workers and part-time jobs are available in only a narrow range of occupational areas (Purcell et al. 2002). It follows that women's engagement in part-time employment and the degree of household gender equity enjoyed are key issues for career guidance. Are women's choices constrained by their circumstances, or are they able to exercise choice over the way they live their lives? Whether by choice or constraint, the dominance of part-time employment patterns highlights the distinctly different relationship of women to the labour market compared with men. The growth in women's employment is often linked to the availability of part-time work which, in turn, links to childcare responsibilities (Bonney 2005). In 2013 in the UK, for example, 42% of women in employment were part-time, compared with 12% of men in employment. While there have been increases in the number of women in work, the percentage in part time employment has fluctuated between 4% and 45% over the past 30 years (Office for National Statistics [ONS] 2013).

The different experiences of women engaged in non-standard forms of employment, compared with men engaged in full-time employment is emphasised further when gender segregation in the labour market is considered.

Occupational Segregation

Occupational segregation by gender has shown a stubborn resistance to change, despite women in developed countries entering the labour market more highly qualified. Two types of segregation are discernible: horizontal or sectoral referring to the tendency of women to be employed in a restricted range of occupational areas different from those in which men are employed; and vertical or hierarchical referring to women being employed at lower levels in organisations (Burchell et al. 2014).

In a study into occupational segregation in the European Union, it was found that women are virtually excluded from certain occupations; specifically, women comprise less than 5% of construction workers, miners and drivers. Men, however, are not excluded from any occupation to the same extent. The particular occupations in which men are under-represented are associate nurses, healthcare assistants,

teaching associate professionals and healthcare assistants. The same study found that this tendency for men and women to do different jobs takes different forms and changes over time. For example, differences can be found in levels of segregation in the same occupation, with variations also evident in the proportions of male-dominated, female dominated and mixed occupations in different countries. It is also striking that with age, men tend to increase their share of better-paying occupations while women become increasingly excluded from professional, higher paid white-collar occupations, becoming more concentrated in female-dominated, less skilled occupations with shorter hours (Burchell et al. 2014). The cost of occupational segregation to economies is substantial. In 2016, the OECD estimated that gender-based discrimination in social institutions costs up to USD 12 trillion for the global economy. Further, that a reduction in discrimination in social institutions gradually could lead to an annual average increase in the world GDP growth rate of 0.03–0.6 percentage points by 2030 (Ferrant and Kolev 2016).

Gender segregation in the labour market is now recognised as a major source of inequality and a number of causes have now been recognised:

Key factors identified in the voluminous literature on segregation are, in no particular order, comparative biological advantages, under-investment in human capital (schooling or training), differential income roles, preferences and prejudices, socialisation and stereotypes, entry barriers and organisational practices. (EC 2009, p. 8)

Little systematic analysis exists that relates to the way gender segregation differs across full and part-time employment in different countries. However, where analyses include part-time employees, part-time women employees are more segregated than full-timers (Elliott 2005).

A powerful mechanism for maintaining occupational segregation is sexual harassment, as research shows that “men are more likely to harass women in non-traditional jobs” (Fitzgerald 2017, p. 484). It is “a chronic occupational health problem” (Quick and McFadyen 2017, p. 286) and “remains today the most pervasive form of violence against women, not only the most prevalent, but often encompassing other forms of violence in its ambit” (Fitzgerald 2017, p. 483). Given the international media storm (#MeToo) that this behaviour precipitated in October, 2017, triggered by accusations by high profile actresses and actors in Hollywood that they had been victims over decades, this workplace phenomenon will be briefly considered. Precise quantification of workplace sexual harassment is difficult (Hersch 2015; Wirth 2001). This is partly because of problems with identification, which may be due to a general lack of understanding and awareness (Thomas and Kitzinger 1997). Nevertheless, its incidence is increasingly acknowledged to be widespread. In the US, sexual harassment was recognised decades ago as a “social problem of enormous proportions” (Fitzgerald 1993, p. 1070). The ambiguity that exists regarding what actually comprises sexual harassment is reflected in the varied definitions of the term, with three currently identified: legal, socio-psychological and public/lay (Quick and McFadyen 2017). The legal definition (Stockdale 1993) specifies two types of behaviour: the exchange of sexual favours (*quid pro quo*) and hostile work environments (sexual comments, leering, ogling, posters). Negative

consequences on the victim include: humiliation, self-blame, anger, loss of self-confidence, reduction in the ability to perform the job, resignation, transfer, demotion, loss of job, decreased job satisfaction, decreased morale, damage to interpersonal relations and various economic loss (Fitzgerald 1993; Handy 2006; Hersch 2015). This is of particular relevance to career guidance and counselling as practitioners are often expected by policy makers to encourage and support girls and women to enter non-traditional occupational areas, where there is a high probability that they will suffer sexual harassment (Bimrose 2004). Some ethical implications of sexual harassment for career guidance for girls and women have, therefore, been considered because encouraging clients to consider non-traditional occupations may result in physical and/or psychological harm (Bimrose 2004).

A combination of occupational segregation and non-standard forms of employment has contributed to women's pay being consistently set at levels lower than men's.

Pay Levels

Globally, women are paid less than men. In most countries, women earn on average only 60–75% of men's wages. The common perception of women as economic dependants exacerbates this situation, together with the increased likelihood that women work in sectors that are unorganised, or not represented by unions. For example, in South Asia, over 80% of women in non-agricultural jobs work in informal employment while in sub-Saharan Africa, it is 74%. In rural areas, many women derive their livelihoods from small-scale farming, almost always informal and often unpaid (UN Women 2017). In the formal employment sector, women's jobs tend to reflect gender stereotypes, with relatively low earnings, poor working conditions, and limited opportunities for career advancement. Even when women perform the same or equal-value jobs as men, they are paid less, on average, though the size of the pay gap varies considerably around the world. Gender inequalities in pay across the European Union (EU) vary widely both across countries and among groups of employees. So, while the pay gap varies by 21 percentage points across all the countries of EU, in Italy and Luxembourg it is 5.5%, compared with 26.9% in Estonia (Eurostat 2017). In the United States, women received 18.1% of the male median wage in 2016 (OECD 2016). Related to the pay gap, women are under-represented in leadership positions in both business and government. Compared to businesses owned by men, enterprises owned by women are smaller, employ fewer people, and are more concentrated in sectors with limited opportunities for profit and growth. Explanations of the gender pay gap inequality include human capital (education and employment experience), the family division of labour, compensating wage differentials, discrimination, and issues relating to selection into the labour (Blau and Kahn 2017).

Pay levels are, therefore, just one indicator of a range of disadvantages women experience in employment that spills over to their private lives. Perhaps more than

any other feature of women's employment, it operates to maintain inequality, by ensuring their economic power in all domains of their lives remains marginalised. A particular manifestation of the negative, cumulative impact of the gender pay gap that characterises women's employment is the impact this is having, and will continue to have, in developed countries on the pension situation of women, with negative impacts on their old age (Foster 2014).

Ethnicity, Gender and Employment

Any examination of the relationship between women and the labour market needs to take account of the ethnic dimension. In many developed countries, much of the available data on women's employment relates only to White women because Black women are so under-represented in many occupational sectors. Additionally, for some women (as for some men), ethnic groups are segregated into particular industries and occupations (Green 1997, p. 82). It is, therefore, important to avoid regarding women as a homogeneous group and to acknowledge the extent and degrees of inequality amongst ethnic groups.

White, middle-class, educated women may be struggling for economic, social and political equality, but the combination of white racism and sexism often make these issues secondary considerations for women from minority ethnic groups:

Women of all major racial and ethnic groups earn less than men of the same group, and also earn less than white men. Hispanic women's median earnings were USD 541 per week of full-time work, only 61.2% of white men's median weekly earnings, but 91.1% of the median weekly earnings of Hispanic men (because Hispanic men also have low earnings). The median weekly earnings of black women were USD 606, only 68.6% of white men's earnings, but 91.3% of black men's median weekly earnings, which are also fairly low. Earnings for a full-time week of work leave Hispanic women well below, and Hispanic men and black women not much above, the qualifying income threshold for receipt of food stamps of USD 588.75 for a family of four. (Hegewisch et al. 2014, p. 2)

When dealing with the consequences of oppression emanating from the interaction of gender and race, priority is given to establishing and maintaining cultural identity (Braun Williams 2005; Chung 2005).

Women's career development is, therefore, often multi-dimensional, varies over time and is structured by context. Within this landscape, can career guidance respond effectively to the particular challenges faced by girls and women as they make their transitions from education and training into and through the labour market?

Career Guidance for Girls and Women

...how adequate are existing theories in confronting a world where the oppression and marginalisation experienced by most women in the workforce are the norm for the majority of working people around the globe? (Blustein 2015, p. 219)

Women and girls have experienced, and continue to experience, persistent, deeply entrenched systemic disadvantages in their lives, including labour markets around the world (Patton 2013). Causes “are multileveled and range from policy-level decisions, to cultural traditions, to workplace culture and include the intersection of these factors” (McMahon et al. 2015, p. 253). Career theories “developed during the mid- to late-twentieth century were based on an insular view of white, middle-class men” (Blustein 2015, p. 219). Not only were they based on this narrow population base, but also on the assumption of the existence of a “traditional career pattern” (Biemann et al. 2012, p. 160), by which is meant long-term, full-time employment in one organisation. These traditional theories have continued to underpin career guidance and counselling practice, despite their shortcomings regarding newly emerging career patterns that do not fit this norm and disadvantaged population groups, like girls and women.

The distinct career patterns of women (Biemann et al. 2012; Shapiro et al. 2008) are considered sufficient justification to consider women’s career development separately from men’s (O’Neil et al. 2013; Patton 2013). Given the breadth and depth of the disadvantage suffered by girls and women in labour markets across the world, it is certainly not unreasonable to suppose that they may have different career guidance needs from boys and men. Collin (2006) discussed how the lack of a gendered perspective represents a major limitation and Patton (2013) identified: “considerable theoretical shortcomings about the nature and development of women’s careers despite consistent support in the literature for the assumption that meaningful work is central to women’s lives” (p. 4). Some have extended their criticisms beyond gender to inter-related dimensions of social inequality: gender and ethnicity; gender and social class; and gender and sexual orientation. The term intersectionality is pertinent for understanding the complexity of these layered disadvantages in individuals (Bimrose et al. 2015a).

With new bodies of knowledge on the horizon that emphasise the importance of a gender dimension, it is essential to avoid falling into the same theoretical trap of generalising findings from one research population to another. A particular challenge for career theory is to ensure future developments respond more effectively to varied aspects of social inequality, including gender (Bimrose 2017b; Guindon and Richmond 2005). Many are now trying to fill this gap, but much remains to be done (Hansen 2003; Parmer and Covington Rush 2003). Whilst the study of careers guidance and counselling for women is vibrant, the attention it has attracted has varied over time. This may, at least in part, reflect how career counselling and other career interventions can function as socio-political instruments in delivering policy goals, with the different emphases placed on developing the body of knowledge informing career practice reflecting differing policy priorities (Herr 2003). The need, however,

for new research into the career needs of particular client groups, including women, continues to be emphasised (Bimrose et al. 2015b).

This expanding body of knowledge provides some interesting leads, though much data available in this area have been produced by the academic discipline of psychology with its tendency to separate the individual from their context. Nevertheless, these contributions comprise a positive development to the body of knowledge underpinning career guidance.

Career Theory for Women

The needs of girls and women as a distinct client group have been a focus for career development theorists since the 1960s (Farmer 1997). Even though a substantial body of evidence now exists on factors that both enhance and inhibit women's career development (Bimrose 2001), the "construction of a unified theoretical understanding of women's working lives and careers remains incomplete – and perhaps it always will" (Patton 2013, p. 16). Nevertheless, a number of theoretical frameworks to guide practice with girls and women are now available (Blustein 2015; Coogan and Chen 2007; Patton, 2013). Four will be briefly considered, with some implications for practice considered.

Circumscription and Compromise

One framework for working with women is Gottfredson's theory of circumscription and compromise (Gottfredson 1981). Its aim was to explain "how the well-documented differences in aspirations by social group (e.g., race, sex, social class) develop" (Gottfredson 1983, p. 204). Major influences were the theories of Holland and Super (Gottfredson 1996, p. 181), with a key assumption relating to job satisfaction being determined by a successful match between job requirements and an individual's preferred self-concept (Gottfredson and Lapan 1997). However, an important difference is the way Gottfredson's approach prioritises the implementation of a social self over that of a psychological self (Gottfredson 1996, p. 181) with career choice achieved by narrowing choices by eliminating options. A process of compromise is evident in the choice process as individuals often find they have to reconcile personal aspirations with harsh reality to achieve career goals.

Vocationally relevant elements of the self-concept are developed during four stages of cognitive development. The first of these involves an orientation to size and power. The second involves the development of a gender self-concept. During the third stage of development, abstract concepts are developed related to social class and intelligence. The final stage involves a refinement of an individual's values, traits, attitudes and interests (Gottfredson 1981). As individuals progress through these four developmental stages, they successively reject occupations.

Those unsuitable for their gender are the first to go; then those inappropriate for social class and ability level; and finally, those on the basis of personal interests and values. The result is a “zone of acceptable alternatives” or a “set or range of occupations that the person considers as acceptable alternatives” (Gottfredson 1981, p. 548). Only unusually will an occupation outside this range be considered. According to this theory, then, occupational preferences are the result of judgements about the compatibility between the self, the job and the accessibility of the job. Compromise becomes necessary when the jobs people view as suitable are not always available. The typical pattern of this compromise process involves a hierarchy of preferences. People first sacrifice interests, then prestige, and finally sex type.

As an explanatory and predictive tool, this theory can assist our understanding of the type of resistance often encountered when trying to encourage an individual to consider a non-traditional occupational choice as part of the career guidance process. According to this approach, women end up in lower-status, lower-level jobs because they are compatible with their gendered self-concepts and views about accessibility.

The 1996 formulation of the theory was “the same in most respects as the 1981 version” (Gottfredson 1996, p. 183), but differs “in providing a clearer definition and account of compromise, more discussion of cultural change and/or race and gender differences, and more guidance on counselling applications” (Gottfredson 1996, p. 183). The elaboration of the theory in 2002 focuses on within-group differences: “why individuals differ regardless of their group membership” (Gottfredson 2002, p. 85). A basic tenet is that individuals are active agents in determining their own destiny because their genetic tendencies help create their own environments and experiences.

Implications for practice of Gottfredson’s theory of circumscription and compromise are discussed both at the individual level— one-to-one client work, and at the organisational level—for careers education programs. According to this theory, career practice should encourage both “exploration and constructive realism” (Gottfredson 1996, p. 227). That is, practitioners should discuss why some job options have been ruled out with individual clients, and/or why some compromises appear more feasible than others. This approach can help young people: gain awareness of options available to them in their culture; acquire relevant experiences that increase self-awareness; and recognise how they are active agents in creating their own future by seeking out particular experiences and rejecting others (Gottfredson 2002). At an organisational level, careers education and guidance programmes should deal explicitly with ways in which individuals restrict their career choices and be sensitive to the ways in which circumscription and compromise take place (Gottfredson 1996). Crucially, the theory highlights the need for careers work with individuals at a very early age for there to be any hope of influencing gendered perceptions of occupational roles (Gottfredson 2005).

Given the recent policy priority attached to filling skills gaps in many countries by ensuring women are recruited into Science, Technology, Engineering and Mathematics (STEM) occupational areas in which they have not, traditionally, been employed, this theory offers an evidence-based approach to combating gender

stereotyping in career practice. Indeed, it even offers a scientifically developed instrument for this purpose, the *Mapping Vocational Challenges*, which represents an example of “theory-based assessments and interventions to counteract inappropriate circumscription” (Gottfredson and Lapin 1997, p. 432).

Career Self-Efficacy

Another notable example of a theoretical development that has particular relevance for career practice with women and girls is career self-efficacy theory (Betz and Hackett 1981; Hackett and Betz 1981). Hackett and Betz (1981) argued that there was a need to move beyond “listings of barriers” to women’s choices and achievements to an investigation of the mechanisms that are effective in embedding society’s beliefs and expectations in women’s vocational behaviour and achievement (p. 327). Career self-efficacy theory places a strong emphasis on thinking processes (in contrast to behaviour) and focuses on the strength of the individual’s belief that they can successfully accomplish a goal. It borrows key concepts from Bandura’s social learning theory (1977) by proposing that belief is more powerful than interests, values or abilities in determining behaviour. Career behaviour, like other types of behaviour, is regarded as a result of interaction between self-efficacy, expectations of outcome and personal goals. An individual may not persist with a difficult task if they believe they are unable to complete the task successfully and/or feel discouraged or overwhelmed by the task. Judgements of self-efficacy influence: whether behaviour will be initiated; the degree of effort that will be expended; and how long the behaviour will be maintained in the face of obstacles (Bandura 1977, p. 191). This can help explain why some women (and men) might not apply for higher level positions and/or non-traditional jobs.

Whilst acknowledging that their theory requires research on various key aspects, Hackett and Betz (1981) suggested that a “self-efficacy approach to the career development of women appears promising due to its explanatory power, implications for counselling practice, and research potential” (p. 337). Some 15 years later, they were still arguing that the theory and measures of career-related self-efficacy are useful (Betz and Hackett 1997). They advocated the use of methods like the structured measures of career-self efficacy and informal assessment techniques to establish the extent to which gender role socialisation may have limited a client’s range of options. In parallel, a focus on male dominated occupations, like mathematics, science and technology can ensure that options have not been limited:

...our job as counsellors is not to make a client’s decisions or to push a client toward a non-traditional career, but to restore options that may have been *de facto* removed by sexism and gender role stereotyping as well as by other environmental barriers. (Betz and Hackett 1997, p. 398)

Like Gottfredson’s theory of circumscription and compromise, self-efficacy theory has considerable potential for boosting self-confidence and broadening options in

careers practice with women. For example, the practitioner could organise work shadowing experiences with female role models in areas in which women are not usually successfully. Desensitisation procedures could be used to reduce excessive anxiety about career choice or performance (for example, relaxation techniques). Or the provision of high quality information could be used which project images that challenge common stereotypes (Brown 1990). Whilst self-efficacy theory may only be relevant when individuals have both the necessary skills and motives, it does offer practical strategies for working with women who are, for example, returning to the workplace after a period of absence following childbirth and may consequently suffer from lack of self-confidence and low self-esteem. The development of this theory over many years represents a significant contribution, though Betz and Hackett (2006) urge other researchers in the field that “more careful attention to the theoretical underpinnings and issues of conceptualisation and measurement would be beneficial” (p. 3).

Feminist Approaches

Feminist counselling is a philosophy rather than a comprehensive theory of practice. Chaplin (1999) defined it as “a different way of being, having different attitudes to each other and different values and ways of thinking” (p. 2). She argued that it is about working towards a different future, as well as living more fully in the present. This future refers to a society in which so-called feminine values and ways of thinking are valued as much as masculine ones. In careers, it has been advocated that careers theory needs to shift its emphasis away from male agency, where tension is reduced by controlling and changing the world, to female communion where collaboration and co-operation are preferred ways of coming to terms with uncertainty (Marshall 1989, p. 279).

Establishing and maintaining an equal relationship is a key feature of feminist career counselling. To implement this principle, practitioners aim to: establish collaborative and facilitative relationships with their clients; inform clients about frameworks underpinning their practice; encourage feedback to the practitioner; and expect the client to use discretion about the practitioner with whom they work. The overall goal of career practice is the empowerment of the client towards self-determination (Brooks and Forrest 1994), often requiring special techniques and strategies, including the use of support groups and female role models.

Some practice implications of applying this approach to careers counselling were detailed by Brooks and Forrest (1994). In addition to the assessment of individual attributes such as abilities, interests and preferences in the careers guidance interview, it is necessary to assess ways in which gender-role issues may have impacted on the client and created barriers. Two stages are necessary to achieve this goal: pre-assessment and assessment. The first stage refers to the preparation of the practitioner. It involves familiarisation with research into the relationship between gender and career development, which is likely to include the interaction between

gender and demographic variables such as race and class, together with discriminatory practices that might occur in education and the workplace. The second stage, the assessment process with the client, focuses on how the client has experienced gender-role socialisation. This could involve gathering contextual data on the culture of the family of origin, family roles for men and women, client's perception of societal gender-role prescriptions for her age cohort. (Brooks and Forrest 1994). An important, additional focus relates to helping clients develop a political awareness of the ways the social structure has moulded and limited them. By developing an awareness of the ways in which context affects women's career choice, clients can reduce self-blame for conditions over which they had no control (Brooks and Forrest 1994). Because feminist counselling recognises the "interconnectedness of the inner psychological and the outer social and political worlds" (Perry 1993, p. 17), it should be sensitised to the way in which women are "affected by their position in society and society's demands that they fulfil specific and often undervalued roles" (Perry 1993, p.17). Like other theories developed for career practice with girls and women, it is difficult to ascertain whether this approach had a major impact on practice, perhaps because confronting and challenging the impact of gender in society in the explicit way advocated by the approach can be regarded as sensitive. It does, however, usefully challenge practitioners, male and female, to examine their own values and attitudes regarding the position of women in society and reflect on the extent to which these are allowed to infiltrate their work.

Systems

Chartrand et al. (1995) suggested that the systemic perspective incorporates "the complex, multi-level nature of environments" and is evident in the work of several influential theorists, including Super (Chartrand et al. 1995, p. 50). They argued that the sheer complexity of a systems approach represents both strength and weakness: a strength because it takes account of individual and societal factors in career development; a weakness because validation of the theory has proved difficult.

The Systems Theory Framework (STF) has been adapted for use in careers by Patton and McMahon (1997, 1999) and McMahon and Patton (2017), who are clear that this is not a theory of career development, but rather an integrative, meta-theoretical framework, that is heavily influenced by constructivism, and within constructivism, by contextual action theory (McMahon and Patton 2017). It provides a "map that may guide the work of career counsellors" (McMahon and Patton 2017, p. 113). Two key components of this framework are content and process. Content refers to the interconnected system of influences, applicable to the individual and the context, emphasising the key influences on career development. Process refers to the "recursive interaction processes" (Patton and McMahon 1999, p. 155) within and between the individual and context. This relates to decision-making, change over time and chance. The individual is placed at the centre of the career choice and development process (Patton and McMahon 1999), which is represented

diagrammatically by a circle containing a range of features influencing career development (like personality, values, knowledge of the world of work, age, gender, ethnicity, sexual orientation, disability, interests, skills, beliefs and self-concept). Each individual is regarded as a system in their own right, existing as part of a much larger system. This is conceptualised as two subsystems: social contextual systems (like family, media, community groups and workplace) and environmental/societal contextual systems (like geographical location, globalisation, labour market and political decisions). All are described as open systems. In terms of practice, careers professionals become part of the interconnected system of influences, affecting the career development of their clients.

This theory examines the interconnections between internal and external variables influencing career development (Arthur and McMahon 2005), integrating both psychological and sociological approaches. Consequently, it is argued that it is adaptable for particular client groups like ethnic minority groups (Arthur and McMahon 2005) and suitable for particular purposes, like conceptualising a family-friendly approach to careers (Collin 2006). It also offers new strategies for practice. For example, it informs and underpins the story-telling approach to career counselling (McMahon and Watson 2013) and provides a qualitative assessment instrument, the *My System of Career Influences* (McMahon and Patton 2017). It is the clients who identify important issues in their lives, with career practitioners acting as facilitators, helping and supporting clients make sense of their stories (Patton and McMahon 1999). Indeed, its emphasis on context, the empowerment of the client as central to the process of making sense of their own career development and its dynamic nature makes the STF a particularly relevant framework for working with girls and women.

A Case Study Approach to Understanding Women's Career Guidance Needs

This chapter has so far examined some of the complexity of the career development of girls and women and reviewed theories and frameworks that may be particularly suitable for career practitioners working with this client group. But what of the individual stories of women trying to make their way in the labour market and who have sought career guidance support? The final section of this chapter will consider the enhancers and inhibitors of women's career development, drawing on evidence from a 5-year longitudinal study into the effectiveness of career guidance and counselling, carried out in the UK that tracked the career progress of 50 adult clients over a 5 year period (Bimrose et al. 2008).

A substantial body of research has provided us with a clear indication of factors that both enhance and inhibit women's career development (Bimrose 2001). These include a combination of structural and individual factors. Structural factors that enhance career progression include: a supportive family background; strong

educational qualifications; later marriage or single status; few or no children; and rejection of traditional attitudes towards women's roles. Individual factors enhancing progression include: high self-esteem; career self-efficacy; instrumentality; multiple role-planning ability; a strong "locus of control"; values (for example, relational value systems rather than hierarchical); and relationships (for example, emotional separation from parents and a strong mother-daughter relationship). Structural factors that have been found to inhibit women's career progression are many and include: the subtle ways in which some educational institutions operate (for example, girls and women being excluded from various activities and feeling "put down"); lack of positive role models; career-family conflict (penalties associated with having children); lack of mathematical and/or scientific qualifications; prejudice, discrimination, sexual harassment and the cultures of many employing organisations. Betz (1994) also identified gender-biased career counselling, particularly the lack of unbiased information and the tendency to steer women and girls towards traditional roles.

So what sort of help do women want from career guidance and what do they value? The following three case studies illustrate the complexity of women's career progression and consider how frameworks developed with women in mind are applicable to work with this client group.

Angela

Angela (25 years old) has a first degree in fashion and started employment in retail when she finished her course. Despite being in a job which was well paid and had prospects for progression, she wanted something more challenging. Those she identified included marketing, advertising, becoming a personal assistant, working in human relations and being an events organiser. The last of these was the most attractive to her. One year on, Angela had researched a number of career options and tried them out through temporary work. Although she had wanted to move out of retail, the opportunity to train as a retail manager had presented itself, so she had applied and was successful. However, she became dissatisfied once more. Then her partner was re-located to a different region in his job. She left her job to move with him and spotted an advertisement for a store manager at nearly three times her previous salary. Since they wanted to buy a house, she applied for this job and was successful. Two years on, Angela was still working as a retail store manager for the same company, though in a new store which she had recently been asked to start up and manage. Her store was breaking all financial targets set. Initially, she had found this exciting, but is now finding the long hours too onerous. She is usually away from home for 12 h a day, sometimes for seven continuous days and has no time either for a social life or to gain the further qualifications that would enable her to move. Her long-term career goal is still to be an events organiser: "That would be my dream job". She has recently applied for several vacancies of this nature, but has not even been invited for selection interview because of lack of relevant qualifications.

She and her partner have now bought their first home, so feel under less financial pressure than previously to establish themselves in the housing market. The initial excitement of starting up a new store has passed, and her long working hours are now causing real concern: “We’ve got what we want, we’ve got the house and we can afford it. I’m in quite a nice place now, but I could do with having a life other than work.” She and her partner plan to get married next year and are thinking about having a family in the near future. They have discussed the possibility of her either having a year off work when she has a child, or returning to employment part-time. She would then aim for a career change: “I’m at a turning point where I can take a step back, maybe wait a few years, have a child and then tackle something different...I’m getting excited about...my work life changing completely.”

Angela’s story illustrates many features of women’s employment. She is, for example, working in the service sector, a traditionally female occupational area—retail. She has risen quickly to a senior management position, but the hours she is expected to work demonstrates the level of work intensification that has occurred over the past decade or so in many occupational sectors (not solely a characteristic of female employment). Her current job can be typified as a greedy career that often becomes all-consuming, especially at senior levels (Hakim 2006, p. 291). As a member of a dual-earning household, financial responsibilities are shared. However, as she earns considerably more than her partner, they are unable to forgo her earnings and consequently her freedom to pursue her dream job has been severely limited. Her particular life-stage (characterised by single marital status and childlessness) has enabled her to commit herself fully to her employment, though this seems set to change. Despite her earning capacity, the discussions about her future (which she envisages as involving marriage and children) assume that Angela will leave the labour market to shoulder the main responsibility for childcare by either taking a year out and/or working part-time.

In terms of making sense of Angela’s situation, the theory of circumscription and compromise seems particularly relevant. The financial pressure to take a higher paid job in an occupational sector and at a level she dislikes so that she can buy a house with her partner and make a significant contribution to the mortgage has clearly forced her into a series of compromises about her occupational choices. Her ability to follow her dream has been constrained by the pressure of work commitments and her own perceptions of what is possible for her and what might be available. Challenging her imagined future in a career guidance process by helping her to consider the range of job alternatives that she has, to date, rejected could prove to be a constructive way of progressing her thinking. This client does not lack proof of her ability to operate in a highly pressurised and demanding job. She has a clear and justifiable belief in her capabilities and clarity about the alternative career path she wants to progress, together with the route she would have to follow to achieve her goal. She has, however, become trapped in a situation where the lifestyle she is sharing with her partner is largely dependent on her earning power. In this situation, the solution that seems to make most sense to her as an escape route is to adapt her career trajectory to one that prioritises family over job—at least in the short to medium term. What would be the impact of this scenario on her and her partner?

Would this option necessarily deliver the opportunity to re-train for her desired change of career?

One other framework arguably relevant to this client's situation is a feminist approach. Angela appears to hold quite traditional views of women's responsibilities regarding childcare, which could be usefully explored. She assumes that she would stay at home and assume primary responsibility for a baby, re-entering the labour market only on a part-time basis. It would be relevant to explore how issues related to gender roles have so far impacted on Angela and how she experienced gender role socialisation. Are there alternative models of family that might be acceptable to her and her partner and what might be the wider implications for employment and lifestyle?

Pauline

Pauline (aged 40 at the start of the research study) was taking the first steps in thinking about returning to work following an acrimonious breakdown of her marriage. She was a single parent, living temporarily with her sister and in receipt of benefit payments. Ideally, she wanted to take up learning opportunities but was constrained by the timing of courses (to fit with school hours) and by limited financial resources. She could not afford to pay for childcare. The main areas in which she indicated interest were hairdressing, retail, and reception work. After a year, Pauline was still trying to resolve the practical details of a difficult divorce, which were proving to be time consuming and restrictive in terms of financial outlay. She was still aiming to fulfil her ambition of becoming a hairdresser and had been doing a range of free courses at local colleges, including computing and a foreign language. Two years on, the legal proceedings regarding her separation from her partner seemed to have ground to a halt. She was, however, now a full-time mature student at the local Further Education College. Though originally wanting to train to be a hairdresser, the college offering the relevant course was too far to travel, given childcare and financial constraints. So she enrolled in a course designed to equip adults who have been absent for some time, to return to the labour market. Her youngest child is doing well at school and she is also enjoying her first grandchild. Angela says that she "loves learning", but has no clear idea of where it will take her. She has applied to do a preparation course for entry to higher education at her college next year. Her interests are varied and some of her peers have told her that she should consider teaching.

Like Angela, Pauline's story, illustrates many features of women's employment. She had left the labour market to stay at home full-time to look after her children, so was financially very vulnerable when her marriage broke down. Her perception of her constraints then forced her to consider re-entry to sectors of the labour market that are stereotypical female: retail, hairdressing and reception. However, her ability to undertake the vocational training required to achieve her primary career goal (hairdressing) was again restricted by her circumstances as a lone parent on a low

income. Consequently, she opted for educational course (for which she was eligible for financial support because of her circumstances), since this allowed her to accommodate her childcare responsibilities. This career decision represented a compromise, constrained by what Pauline perceived as pragmatic considerations, rather than personal preference. Her life-stage, as a lone parent and new grandmother, brought with them restrictions to her career progression. But it also brought the opportunity to retrain—perhaps for teaching (yet another gender stereotypical area).

Understanding the complex influences on Pauline's career progression is challenging. Systems Theory Framework offers an analytical tool that could assist with appreciating the dynamic interactions of the various contextual factors and how these both impact on each other and upon Pauline's plans, over time. The concepts of content and process are particularly useful here. Content, relating to the variables applicable to the individual (for example, age, gender, marital status, care responsibilities) and process relating to the interaction within and between the individual and their context (for example, Pauline's decision to train for a career to secure her financial future and the availability of an educational course upon which she could enrol free of charge that was within easy travelling distance). Careers support had become part of the open systems of which Pauline is part, influencing and affecting her career development. Further, systems theory allows the integration of various approaches. A complementary set of concepts could be used from self-efficacy theory, therefore, to support effective careers guidance with Pauline.

Career self-efficacy and self-esteem seem to be key issues in re-building Pauline's life. She recognises that she needs to become financially independent, but is starting from a low level of qualification with very limited financial resources. Her journey of re-training for a career is long and arduous. If she is to succeed, she will need help and support in developing, and sustaining, a belief that she can reach her ultimate goal. Work shadowing or mentoring may be methods that could help motivate her to persevere in working towards her career ambition. In conjunction with these methods, high quality labour market information, with positive role models could also play a role in developing her belief that her goal is achievable.

Sharon

Sharon (aged 34) wishes to return to employment after 10 years absence from the labour market, during which she has been raising her family. She had recently completed a part-time course aimed at getting women back into employment. She was interested either in training to teach in the tertiary educational sector, or perhaps working in floristry, gardening or horticulture. Sharon has care responsibilities for school-aged children, so was only considering part-time employment or training—at least at present. She had previously worked as an instructor in information technology and in electronics and telecommunications (in which she holds a qualification). A selection interview was pending for the course in teacher training. When followed-up 1 year on, Sharon had successfully completed the teaching

qualification: "I did the teaching qualification and passed that." However, whilst doing this qualification, Sharon had decided she really wanted to be a garden designer: "the garden is my love... [I thought] I might as well go for my dream, which to me is to have my own business, you know, as a garden designer." To this end, she has enrolled on a 3-year part-time degree course in garden design at an agricultural college. Once her daughter is at senior school, she hopes to set up her own business, initially offering a design service. When followed-up 2 years on, Sandra was half way through her part-time degree course in garden design. She was also undertaking work experience by volunteering to tend the gardens and start a vegetable patch at her daughter's school. Building work and renovation of her new house had occupied much of her time over the past year, in addition to childcare responsibilities and her college course. She had undertaken most of the decorating, to avoid paying to have this done. Sandra is aware that there is a high demand for garden designers, though she is unsure whether there is much money to be made. However, she wants to do a job she enjoys and money is not an issue as her husband is a high earner: "It's more, sort of, to stop me going nuts, I suppose." Lack of self-confidence is a key issue for Sharon: "Because not working for such a long time, you really, really lose your confidence... There's still that, 'Oh my goodness,' you know, 'who would ever want me?' That comes, I think, from 12 years of not being employed. You devalue yourself totally." In a year and a half, her youngest daughter will have started senior school, which will give her more time to start up her own business or commit to a part-time job if her business fails. Although she would like to apply for a part-time position, her child care responsibilities take priority.

On the birth of her children, Sharon withdrew from the labour market, with her partner taking on the role of sole breadwinner. After a long absence from employment and despite initially working in non-traditional occupational areas (information technology, electronics and telecommunications), Sharon wishes to return to traditional, female occupational areas (teaching, floristry, garden design). Her perception is that her career plans are constrained by her childcare commitments. Even her volunteer work is at her daughter's school. The extent of her involvement in domestic labour extends to undertaking the decorating in the home, to save paying for this service.

With self-confidence identified as a major problem for Sharon, self-efficacy theory would provide an appropriate framework for working constructively with this client. She requires sustained support and reinforcement to convince her that she has skills to offer that are worth remuneration in the world outside her home. The theory of circumscription and compromise could also be valuable in exploring Sharon's rejection of non-traditional jobs in which she has experience and for which she is qualified, in favour of more stereotypical female employment. Spending time exploring the options that she is rejecting may provide new insights for Sharon.

Conclusion

Women's participation in the labour market is now regarded not just as a social justice issue but also a means of filling skills gaps and achieving higher economic productivity. However, with evidence of continuing gender discrimination, the goal of integrating women fully in the labour market remains an aspiration. For some women, simply getting access to labour market opportunities remains a main problem. For others, it is the lack of high quality employment and opportunities for career progression that is lacking.

Analysis of labour market trends across different countries reveals remarkable similarities in the career patterns of women but also differences. A pay gap that consistently disadvantages women, compared with men; persistent occupational segregation, both horizontal and vertical; non-standard employment (dominated by women) that provides employer benefits that are rarely matched by benefits to employees; patterns of commitment to employment that reflect women's context, life-stage and perceived support; sexual harassment in the workplace that compromises the quality of women's work experiences—all are common features that inevitably detract from the quality of employment experiences of women across the world. What differs is the extent and depth of these features of women's employment in different countries.

With the traditional bodies of knowledge currently underpinning career guidance and counselling practice increasingly regarded as inadequate for servicing the needs of disadvantaged groups in societies around the world, including women and girls, some positive developments in research and theory that respond to the needs of these client groups are discernible. However, most remain untried, and therefore untested, in practice. Encouraging practitioners to espouse new approaches and take the risks associated with experimentation and reflective practice remains challenging (Reid and West 2016). Yet for career guidance to remain viable and credible for clients, policy makers and funding bodies, a culture change in the community of practice that embraces new frameworks is indicated.

The aim of careers guidance and counselling is ultimately to meet the needs of clients. This can only be achieved if their real needs are understood and theoretical frameworks that inform practice are fit for purpose. It is no longer legitimate to assume that the needs of women and girls can be accommodated using practice frameworks developed for men. Women's lives are increasingly complex and new approaches, developed to meet their disparate needs, offer promising alternative ways of working with clients which are grounded in the real experiences of girls and women.

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Chapter 19

Life Design and People with Experience of Substance Abuse



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Abstract Adults with Substance Use Disorder (SUD) experience many barriers and challenges in their work and social inclusion. Moreover, use and abuse of drug is related to vocational and occupational problems and to difficulties in planning one's own future life in personal and professional domains. Based on the Life Design paradigm that emphasizes human diversity, uniqueness, and purposiveness in work and career, in this chapter attention was paid to possible paths in career counselling in order to help people with vulnerability to re and co-construct a new narration of self to improve a social and work inclusion. Taking into account the need and the importance to promote the conditions for work inclusion for people with vulnerability, attention was also paid to resources like career adaptability, courage, and hope and their role in supporting the personal and professional future planning of individuals with experience of substance abuse.

Keywords Life design · Substance use disorder · Social and work inclusion

In the last decade the proliferation and mutually conditioning effects of different variables such as globalisation, technology development, immigration, poverty or precariousness has led scholars to suggest the concept of super-diversity (Vertovec 2010). This term intends to underline a level and kind of complexity surpassing anything any country has ever experienced. It is a diversification of diversity, occurred not only in terms of movements of people, which reflects many ethnicities, languages and countries of origin as well as the multiplication of significant variables that affect where, how and with whom people live.

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Therefore, reference is made to the interweaving of variables associated with differential legal statuses and their concomitant conditions, divergent labour market experiences, discrete configurations of gender and age, patterns of spatial distribution, and mixed local area responses from service providers and residents (Vertovec 2010). These aspects connect and further interweave with other components that are traditionally and prototypically associated with impairments, gender differences, socio-economic status or psychological discomforts, thus making the current social context more complex and heterogeneous.

In light of what has been said above, it seems clear that in our current reality, which is complex and continually undergoing change, it is necessary to value personalisation and the uniqueness of individuals so as to activate, and maintain over time, energies and resources in them (Santilli et al. 2014).

In today's societies, there is an increased bracket of the population living in situations of vulnerability characterised by uncertainty and a perceived loss of control (Ranci 2014) due to the changes brought about by globalisation, migratory flows, and fast technological advances, which have produced a new set up in the nature of work. Indeed, low-productivity and precarious labour is on the increase, as are the so-called atypical work contracts and forms of indecent work. As a result, uncertainty, instability, and lack of confidence in being able to build a decent and satisfactory future seem nowadays to connote both personal and collective life and also encompass the institutions and the agencies of adult life socialisation. Added to that there are also the existential and psychological effects of organisational and occupational changes, such as psychological discomfort, questioning personal achievement expectations, reduced self-esteem, instability in emotion regulation, lack or loss of employment, which not only leads to fewer financial resources but also negatively affects an individual's planning abilities and his/her identity development. In some cases, apathy and feelings of despair toward the future can appear (Nota et al. 2016).

Thus, it is not by chance that people are nowadays making an increased explicit (or implicit) request for activities of vocational guidance and career counselling that may enable them to plan and realize a satisfactory life as concerns education and training, work, family and various forms of integration into the social texture (Nota et al. 2016). Being confronted with criticalities and sharp changes in their life contexts, people seem to need greater cognitive and emotional resources to deal with such situations and therefore look for different forms of counselling and supports to cope with the ensuing insecurity and instability and to plan anew their personal development. The international literature, too, supports the need to value people's involvement and empowerment in managing the constraints and the opportunities of their current situations, starting from the strengthening of their resources, and especially of their reflective and planning abilities centered on the self, and also through dedicated forms of counselling (e.g., Smith 2006; Toporek and Cohen 2017). This should counteract the reduction of the external reference points that traditionally marked their life course and psycho-social career, and also encourage them to evince from experiences made in different contexts some projects on which to invest their energies.

The picture given above justifies the increased need to supply appropriate actions of individual and collective help, especially if directed to the active support of the individual and the social groups at high risk of vulnerability and social exclusion, such as the homeless, people with impairment and disability, the elderly, prison inmates and former inmates, individuals with experience of substance abuse, immigrants, Gypsies, large families or single-parent families, and minors (European Commission, Social Protection, and Social Inclusion Office 2017).

In this chapter, we will focus on people with experience of substance abuse, who are little studied both in inclusive contexts and in career counselling. The aim is to identify action pathways to help people recover their cognitive and emotional resources and improve their strengths, so they can realise a plan for their professional and personal life. Based on the Life Design paradigm, which can be considered a career and vocational paradigm for all people with and without vulnerability or a specific disorder, in this chapter we will first study, in depth, the presuppositions on which the Life Design is based and the resources emphasised by it. We will then focus on resources like career adaptability, courage, and hope, and their role in supporting the personal and professional future planning. Lastly, we will focus on challenges and the benefits associated with personal and professional future planning in people with substance abuse experience.

The Life Design Paradigm

The Life Design Paradigm (Savickas et al. 2009) is a novel theoretical approach that takes into account the conditions people are currently experiencing and the ever-increasing number of at-risk individuals. It aims to address the issues of career construction in times of crisis, to respond to socio-economic changes and to the instability and insecurity of the current job market, especially as far as individuals with vulnerability are concerned. It focuses on abandoning purely linear perspectives and individual conceptions in favour of more ‘circular’ and contextual ones.

Rather than matching self to occupation (Holland 1997; Parsons 1909) or readying self to develop a career (Super 1990), career construction reflects a third wave of career theory and practice. The first focuses on the relationship between individuals and work to match a person’s abilities and interests to the requirements and rewards of an occupation; the second concentrates on individuals seen as the owners of a certain capital of competences, which they must know how to invest in occupational opportunities that they can elicit from the settings where they interact as designers and governors of their lives. The third wave is the psychology of Life Design (Savickas et al. 2009) devised at the very beginning of the twenty-first century to achieve meaning through work and relationships. The third wave shifts the focus toward shaping the self through work and relationships. Life Design advances a contextualised epistemology that emphasizes human diversity, uniqueness, and purposiveness in work and career so as to lead a life of personal meaning and social consequence. Specifically, this framework aims to set up practice interventions as

an inter-subjective process focused primarily on work or career issues, and is structured in five presuppositions to be life-long, holistic, contextual and preventive. The five presuppositions identified for Life Design by Savickas et al. (2009) are as follows: context, process, non-linear dynamics, narrative realities, and modelling.

The first presupposition considers career identity as shaped by self-organization of the multiple experiences of daily life. Life Design professionals should help individuals to organize these experiences in a professional life planning in order to increase their employability, their social competences, and their ability to manage the complex constraints existing in their personal, occupational, social and family ecosystems, rather than simply supplying information on tradition labour routes, which are increasingly difficult to achieve. Furthermore, it is obvious that multi-diversity issues arising from social environments are important when individuals assess opportunities in a complex society. It is important for career professionals to keep multi-diversity perspectives in mind and, in a global society, it is just as important for individuals to be aware of multi-diversity perspectives in order to competently develop the career/life style they prefer.

The second presupposition focuses on strategies for survival and dynamics of coping, rather than adding information or content. Counsellors must discuss with clients 'how to do' not 'what to do' (Savickas et al. 2009). They must bear in mind that no serious professional will be able to keep up with all the specific requests of an occupation in today's labour market and be able to offer suggestions on the 'best possible correspondence' to the client/user. It is necessary to work with the client and his/her important others in order to identify the *dynamics* of their ecosystem and also to formulate, test and evaluate some hypotheses that must be viable and functional by repeating the same process several times to succeed in finding solutions that are both realizable and satisfactory.

Furthermore, simple linear causalities are the exception and thus non-linear causalities become the rule, and the third Life Design presupposition shifts from simple advice for vocational decision making to expertise in the co-construction of clients' life design. The conviction that certain attitudes and interests can be sufficient to be successful in a given job or in a training course, and the position that such characteristics can remain stable and predictable appear, to be no longer correct (Ginevra et al. 2018; Hoff et al. 2018). If on the one hand it can be said that general intelligence and basic values remain relatively stable, on the other it is essential that when people are planning their own life they should avoid considering attitudes and interests as constant features. Even during a simple interaction based on the solution of an issue or on problem solving, premises and definitions change continually and more often than not in a non-linear fashion. Multiple changeable and complex decisional chains, further complicated by reciprocally dependent causalities, which make them non-linear, have become the rule. Simple linear causalities have become the exception.

The fourth presupposition focuses on clients' ongoing construction and re-construction of subjective and multiple realities. Rather than relying on group norms and abstract terms, they should engage in activities and meaning-making that enable them to build a new vision of themselves. Savickas (2012) has shown that under-

standing the construction of the multiple subjective realities of individuals by referring to the analysis of their stories, *narrative realities*, has the advantage of being coherent with their language, of understanding their actual situation and what has characterised their development. Rather than focusing on statistical or social norms, which are abstract and little changeable, clients should engage in activities that can help them give meaning to their situations and thus create new ways of seeing themselves. The advantage of such operations is to be able to offer clients multiple ways to interpret their life experiences, which, in turn, will allow them to devise several life projects that will be personal by definition and therefore unique. It follows that sound career counselling should be adapted to each individual because any standardized treatment would diminish the value of the same career counselling activities. In relation to this, Life Design emphasises the use of dialogues to assist people in developing the reflexivity they need to design their lives (Watson and McMahon 2015). Indeed, as shown above, in current liquid modernity, individuals must think about their lives in order to define (and redefine at each period of their lives) the major expectations that give their lives a meaning (expectations and meaning that also allow them to develop the strategic mindset they need to manage their job pathways). As distinct from career guidance, life-designing dialogues do not aim to aid clients think about their lives from the perspective of the current social norms of employability. Their purpose is to help them define their own norms, from which they can design their lives and give a meaning to them. Reflecting on the perspectives that make lives meaningful implies that people must embark in dialogues with themselves and with others. In this case, career episodes, drawings and pictures may be helpful in supporting storytelling and in co-constructing new meanings (Gladding and Drake Wallace 2010). Therefore, interventions that aim to assist clients in developing such reflexivity take the shape of counselling dialogues (Guichard 2015), where the clients finding ideas to build new paths toward the future and identifying supports useful to achieve new goals (Gladding and Drake Wallace 2010). :

Finally, the last presupposition focuses on evaluating outcomes and assuring the quality of counselling procedures, modelling fractal patterns, and striving to forecast emerging stable configurations of variables rather than any single outcome variable in evaluation. Simply keeping to descriptive statistics will hinder the success of counselling given that multiple subjective realities will be examined and personalised routes will be followed. The latter will be characterised by non-linear dynamics linked to changed premises and definitions, which will be recorded along the counselling itself.

For instance, taking into account the greater difficulties that people with vulnerability encounter in representing and building their own future, the Life Design approach carefully considers motivations to change elicited from the client and not imposed from external forces. For instance, taking into account the greater difficulties that people with vulnerability encounter in representing and building their own future, the Life Design approach carefully considers the career adaptivity, that refers to dispositional flexibility and readiness to changes that is evoked to proactively meet challenges and unfamiliar tasks (Savickas and Porfeli 2012). Additionally, emphasis is given to a series of psychological resources (e.g. career adaptability,

resilience, hope, optimism, time perspective, courage) useful to cope with the daily challenges. Among these psychological resources, we focus on career adaptability, hope, and courage, which are expounded below.

Career adaptability represents a central concept in Life Design. It includes a set of self-regulative resources, spanning attitudes and perceived competencies, for managing vocational developmental tasks (Savickas 2005). The four main sub-dimensions of career adaptability are known as the 4C, that are concern, control, confidence and curiosity. Concern refer to the propensity to project themselves into the future, taking into account both what one is and what he/she would like to become. Control is the tendency to consider the future at least partially controllable. Curiosity is the level of propensity to explore the self, including skills, abilities, knowledge and values, and also the environment. Confidence is the belief in one's own ability to face challenges, and overcome obstacles and barriers that can be experienced in pursuing personal goals. Savickas and Porfeli (2012) assume that the four resources of career adaptability, predicted by dispositions (adaptivity), are positively related to adapting responses such as adaptive behaviours and beliefs that people use to deal with career development tasks and changing work and career conditions (e.g., resilience, decision making, hope). Such behaviours and beliefs mediate the association between career adaptability and adaptation results (e.g., life satisfaction, commitment, and work success). Rudolph et al. (2017) meta-analysis has recently provided empirical evidence in support of Savickas and Porfeli's (2012) theorisation. Based on a total of 90 studies, Rudolph et al. showed that people's career adaptability is positively related to adapting responses, which in turn are positively related to adaptation results. People's adaptive beliefs and behaviours in approaching career development tasks and fluctuating work and career conditions are signs of adapting responses (Hirschi and Dauwalder 2015; Savickas and Porfeli 2012). Adaptation results are corroborated by outcomes such as commitment, development, satisfaction and work success (Savickas and Porfeli 2012). Adapting responses have a positive correlation with promotion-focused self-regulation strategies, which imply being goal-focused, searching and finding alternative solutions, being proactive, and with task-oriented coping and cognitive reappraisal (Van Vianen et al. 2012).

Hope Hope has been theorized in a variety of ways within the counselling literature. Averill et al. (1990) conceptualised hope as primarily an emotion rather than a cognitive construct. Similarly, Scioli et al. (1997) considered it as an affective variable that sustains action and affects thoughts and behaviours. Hayes et al. (2005) defined hope as "the extent to which the person describes an expectation that the future will be better and progress can be made on problem areas, as well as commitment to change" (p. 413). It is an emotion rooted in biological, psychological, and social resources, which occurs when an individual is focused on an important positive future outcome (Scioli et al. 2011). Hope, therefore, is a positive motivational state, in which people have a sense of agency (willpower) and pathways (waypower) for goals (Snyder 2000). Agency or willpower regards the determination to start and sustain the effort needed to achieve goals. Pathway or waypower reflects plans for

goal achievement. The agency and pathway components of hope are strongly inter-related and operate in a combined process to provide hope.

Different research studies have shown that hope is related to a wide range of indicators of psychosocial well-being and career outcomes. Specifically, it is associated with higher levels of life satisfaction, personal adaptation, adaptive achievement, and fewer behavioural problems and depressive symptoms (Kenny et al. 2010). Regarding work outcomes, Hong and Choi (2013) stated that employment hope is an essential resource that enables people to maintain confidence in the possible-self against barriers and to maintain involvement in their work paths.

Courage The term courage has been used since about 400 BC by philosophers like Aristotle, Socrates, and Plato to indicate a main virtue that promotes the individual's development. Indeed, courage represents the ability to act for a meaningful (noble, good, or practical) cause, despite experiencing the fear associated with perceived threat exceeding the available resources (Woodard 2004). Rate et al. (2007) provide a framework for understanding different types of courage in terms of risk–goal pairs. Based on this theoretical framework, they identified three different types of courage: physical courage, moral courage, and psychological courage. The prototypical physical courage situation involves saving someone else from a clear and present physical danger by voluntarily entering that physically dangerous situation. Prototypical moral courage involves standing up to powerful others for what the individual believes in, with the risk that others will treat the individual poorly. Prototypical psychological courage involves facing unpleasant truths or experiencing unpleasant treatment in order to attain wellness. Differences in risks and benefits based on type of courage have been supported in the literature (e.g., Pury et al. 2014). Pury and colleagues highlighted that physical courage actions are characterised by high physical risks/difficulties (internal risks), moral courage actions are characterised by high risks in social contexts (external risks) and high internal benefits, and finally psychological courage actions are characterised by high emotional and psychological risks (internal risks) and high internal benefits.

As demonstrated by different studies, courage is related to well-being, life satisfaction and quality of life in people with and without vulnerability (Proyer et al. 2013). In addition, it is also related to career constructs such as tendency to perseverance, mental openness, resilience, and future orientation (Hannah et al. 2011). Moreover, people with high levels of courage are more motivated to pursue their life and career goals and implement several solutions to pursue them, so they experience lower levels of fear and insecurity than people with low levels of courage (Amundson et al. 2010).

Overall, the studies presented above show the relevance of implementing resources such as career adaptability, hope, and courage in the personal e professional life design. For these reasons, it could be useful to focus more greatly on the role played by these variables in the professional planning of individuals with experience of substance abuse so that they can increase their ability to manage difficult situations and achieve what is particularly important to them, even when challenged by obstacles and internal and external barriers.

Substance Use Disorder and Future Life Perspective

Data obtained from the United Nations Office on Drugs and Crime (UNODC 2016) show that the use and abuse of drugs is a reality all over the world and a problem that every nation must contend with. In Europe, for example, 17.1 million young adults are estimated to have used drugs in 2016 (European Observatory on Drugs 2017). Also, when considering people that are actually being treated, the data of the *Dipartimento delle Politiche Antidroga* (Italian Department of Anti-drug Policies 2016) confirm an increased trend.

The pathological use of a substance results in a series of problems connected with physical health (e.g., infarction, hypertensive peaks, endocarditis, ictus, immunodeficiency, rhinoplasty, malnutrition), which can endanger the life of individuals with experience of substance abuse; neuro-cognitive deficits, especially in cognitive functions (Snyder et al. 2015), which can lead to deficits in a number of activities necessary in several life domains, such as problem solving skills, memory and learning, planning (Motzkin et al. 2014); psychiatric comorbidity, with several studies highlighting high levels of comorbidity between substance use disorder and other psychiatric diagnoses (e.g., depression, schizophrenia; American Psychiatric Association 2013); social problems—recurrent substance use can lead to a reduction in the social network and in supports from friends and family (American Psychiatric Association 2013). Finally, use and abuse of drugs is related to vocational and occupational problems and to difficulties in planning one's own future life in personal and professional domains (e.g., Richardson et al. 2012). In the literature, studies can be found showing that people with experience of drug abuse who have achieved good integration in the social and working sphere are also the ones more willing to continue the therapeutic procedures (Richardson et al. 2012). These people have greater therapeutic success and go through fewer relapses and experience higher levels of life satisfaction (Richardson et al. 2012; Shepard and Reif 2004). The European action plan (European Observatory on Drugs 2013) considers social and professional re-integration as a fundamental element of the new intervention strategies on issues of Substance Use Disorder (SUD). However, having experience of drug abuse puts people at high risk of not being able to plan their own future life, thus exacerbating difficulties in obtaining employment or being socially included. Envisioning and designing a desired future, making decisions about how to pursue that future, imagining possible and positive future scenarios, and reaching goals to achieve these outcomes after leaving the therapeutic community are never easy tasks and substance use introduces specific complications.

Richardson et al. (2012) maintain that the specific complications regarding the work inclusion of people with experience of drug abuse are related also to their contexts. In particular, Richardson et al. (2012) identified three complications and challenges: those linked to treatment, those linked to the social context, and those broadly connected with the world of work.

As regards the challenges linked to treatment, Richardson et al. (2012) underline that treatment for SUD issues is very rigid, in particular when people with a history

of substance abuse take a competitive drug (such as methadone). More specifically, people with experience of substance abuse are required to go often, even daily, to the substance addiction services to undergo checks about their substance abuse and also to get competitive drugs on prescription. Another barrier linked to treatment is the lack or reduction of funds supporting the professional rehabilitation programs for people with experience of substance abuse (Richardson et al. 2012; Shepard and Reif 2004). Although in Italy there has always been institutional attention toward work re-integration for individuals with experience of drug and alcohol abuse (Act 124, D.P.R. n. 309/90; Act 5 and 6 of Law 5, June 1990, n. 135; Law 381/91, etc.), over the last few years the global crisis and neo-liberal policies have caused the welfare state to cut down (Mladenov 2015), which has disrupted the Italian policies and actions of work re-insertion through a grant system. Moreover, due to the very few research studies on these problems, existing rehabilitation services seem to be experiencing lack of assessment instruments and of appropriate intervention programs.

Barriers associated with the social context can be linked to the prejudice against people with experience of drug abuse, which can unfortunately be met in several contexts. People with experience of drug abuse, for instance, are seen as unreliable, out of control, violent, carriers of diseases, and unwilling to change their behaviours. Such prejudice exists in the family, in health contexts, and also in the workplace (employers, colleagues). These preconceptions seem to persist even when the person does not use substances any more, and they seem to strongly affect quality of life, chances of getting employment, and quality of treatment of these individuals (Earnshaw et al. 2013).

Finally, there are the barriers associated with problems arising in the labour market (Richardson et al. 2012; Shepard and Reif 2004). In this respect, the European Observatory on Drugs (2017) sounded the alarm about the unemployment rates of people with experience of drug abuse by emphasising that one in two drug abusers is unemployed and lives in precarious conditions. These data are also confirmed in Italy where about 70% of people in treatment for SUD appear either to be unemployed or have occasional and precarious jobs (Dipartimento Politiche Antidroga 2015).

Alongside the barriers linked to the context, vocational guidance and career planning professionals must also consider the barriers and challenges linked to the client (Richardson et al. 2012). In their review, Richardson et al. (2012) not only underline that individuals with experience of substance abuse have not only low levels of education, little or no work experience, and unrealistic career goals but also lower levels of self-esteem, problem-solving, decision making and social skills, when compared with adults without experience of substance abuse.

Taking a closer look at these people's ways of career construction, and in light of what was said above, we have gone in depth into dimensions and aspects linked to future planning in a number of life contexts. In this regard, Sgaramella et al. (2015) reported that individuals with experience of drug abuse have difficulty in projecting themselves into the future considering their past and present; in determining their future goals; and in identifying adaptive strategies to face the different transitions and requests of the world of work. These considerations are in line with Thomas and

Rickwood's (2016) results. They administered semi-structured interviews to 37 adults with experience of drug abuse to investigate their future goals but also the support resources they had and their need to achieve future goals. The typical narratives on the future produced by adults with experience of drug abuse were specific to the minimal opportunity structures available to them— a prioritising of paid employment with little concern about the type of work done, a home that was secure but not owned and, often, a wish to regain custody of their children. Significantly, many participants could not articulate a future beyond their present circumstances. The uncertainties of their lives shaped their future thinking through not only their lack of capital but also through deficit views of themselves as possessing few choices and few strategies to pursue their goals. Bryant and Ellard (2015) involved 26 young with experience of drug abuse and interviewed them with the aim to explore beliefs and values about drug abuse, role and importance of social networks including their family, knowledge and understanding of injecting-related risks, perceptions and experiences of social and health services, and views about their futures. The narratives of participants were featured heavily with histories of family breakdowns, neglect, abuse, poverty, substance abuse and violence. Distinct from the studies above, Bryant and Ellard (2015) emphasised that these histories did not wholly determine participants' future thinking because they managed to generate hope for something better and, in this way, some agency in the making of their own futures.

In line with this and based on the Life Design approach, Di Maggio et al. (under review), focused attention on abilities, competences and positive attitudes that can help individuals with experience of substance abuse plan and act in favour of their own future life. Specifically, examining resources of career adaptability and hope in adults with and without experience of drug abuse (185 with and 185 without SUD) involved in programs of professional rehabilitation, it was found that career adaptability predicted hope resources, which in turn was related to life satisfaction in individuals with and without experience of substance abuse. In line with the LD approach, results obtained emphasize that resources like adaptability and hope, albeit not so plentiful in individuals with experience of substance abuse compared to individuals without such experience, can be considered important and have an impact on levels of life satisfaction of all people, with or without vulnerability.

In line with this study and especially focusing on the predictive role of hope, Barbieri et al. (2016) studied 98 workers with experience of substance abuse. They showed that the tendency to setting future goals and finding strategies to pursue them (hope) positively predicted work engagement and positively correlated with other positive and crucial variables in future design such as future time perspective and resilience. Similar to adaptability and hope, courage, too, seems to play a decisive role in the levels of life satisfaction of people with and without experience of substance abuse and also in the processes of planning and construction of a satisfactory future life. For example, Di Maggio (2017) examined 127 individuals with and without experience of substance abuse involved in a program of professional planning. Results showed that substance abuse was associated with lower levels of life satisfaction but also courage predicted positive life satisfaction in individuals with

and without experience of substance abuse. This means that the tendency to act with or without varying levels of fear, motivated to respond to a threat to achieving an important present and future goal, positively influences the feelings of life satisfaction in people with and without experience of drug abuse.

As regards more specifically individuals with experience of substance abuse, Putman (2010) affirmed that courage, in particular psychological courage, can be conceptualised as something that could motivate people with experience of drug abuse to enter into treatment and face challenges related to treatment and care for substance abuse, such as restructuring one's own attitudes, accepting negative past choices and confronting a negative image of oneself and a difficult past. Moreover, Putman (2010) underlined that psychological courage can also be seen as an essential resource in the future planning of individuals with experience of substance abuse, as it can motivate them to face up to an unpredictable, uncertain and paradoxically negative future. Indeed, one of the greatest fears and challenges reported by individuals with experience of drug abuse actually concerns planning for their future (Laudet 2011).

Empirical evidence to support Putman's (2010) theorisations can be found in the literature. For example, in his ethnographic study, Ehrmin (2001) interviewed several African-American women residing in a community for substance abuse and showed that the key concepts identified in the interviews referred to the courage to face physical pain and the courage to forgive oneself for past mistakes by centralising what one had been. Recently, Di Maggio (2017) examined 80 individuals with experience of drug abuse who were attending a professional planning program and asked them to tell a personal story of courage (Table 19.1). By means of qualitative and quantitative analyses, this study confirmed Ehrmin's (2001) results: courage can be a useful resource to face the challenges associated to rehabilitation, such as coping with physical pain and forgiving oneself for past mistakes. Moreover, in line with Putman's (2010) model, the results obtained also highlighted that psychological courage can be considered as a useful dimension to help people with experience of drug abuse face their future. Specifically, Di Maggio (2017) observed that in the personal stories of courage related to their experience of drug abuse, 11.23% of participants reported they had been courageous when they had decided to start the treatment and face the therapeutic course (e.g., "to start treatment and face once and for all my problems with substances... to accept what I am now ... facing that each

Table 19.1 *Courage Interview* developed by the Courage Research Group of University of Padova

Courage interview	
Instruction: "The purpose of the present interview is to better understand the experience of courage that persons live in their life. Life is often complex and difficult and for this, life requires patience, perseverance and courage. In your experience, have you been courageous?"	
	Yes No
Please describe the most courageous action that you had performed during their life, and describe where the event occurred, which other persons were involved, how you felt and what you thought, what the consequences were, and how the other people behaved in that situation.	

For more information http://larios.psy.unipd.it/it/?page_id=126

day brings many difficulties”); 33.8% of participants reported they had been courageous when they had begun to accept difficult past behaviours (e.g., “stealing cars; doing robberies; going to work under the effect of substances; being raped; being abused by their father”); 6.3% of participants reported they had been courageous when they had decided to face new challenges for the benefit of their future despite their fear of failure (e.g., “starting a course of study; going back to work”). Moreover, in line with Putman’s theorisation (2010), individuals with experience of drug abuse more frequently described courageous behaviours when overcoming psychological rather than physical and moral risks, especially when their stories were referring to their addiction rather than to other life situations. These results show that psychological courage can be a particularly crucial resource in helping individuals with experience of drug abuse to accept a difficult past, but also to deal with the potential challenges linked to their present and their future.

In conclusion, the various studies referred to above highlight that individuals with experience of substance abuse are at high risk as concerns their future planning both because of contextual reasons, like for instance prejudice against drug abusers, and because they seem to have fewer useful resources for good professional planning, like for instance hope and career adaptability. This notwithstanding, the same studies underline that, as suggested by the Life Design approach, resources such as hope, career adaptability, and courage can be important in determining people’s levels of satisfaction and in affecting the future planning processes of individuals with and without experience of substance abuse.

Conclusion

The context in which people design their personal and professional life is characterized by multiple complexities, or as defined by Vertovec (2010), super-diversity, so much that some authors (Van de Vijver et al. 2015) have in fact highlighted the need to consider wider and more complex social identities, determined by the interaction between personal factors and multiple contexts in continuous evolution and change. For these reasons, careful attention must be paid to the contexts where people live, which, although in most cases not chosen by them, do affect their quality of life and have a role, possibly even decisive, in the co-construction of their difficulties (Shogren et al. 2014), such as the risk of social exclusion and the difficulties associated with the development of personal and professional goals.

In line with the contextualised epistemology of Life Design that emphasises human diversity, uniqueness, and purposiveness in work and career, recently some authors have identified possible paths in career counselling in order to help people with vulnerability to re- and co-construct a new narration of self, past, and present story and new and positive future narration (e.g., Hartung and Vess 2016). First of all, professionals are invited to understand the life context, as well as the social support network and the resources and information relevant to the general well-being of the client. Subsequently, the counsellor could help the clients to bring out their

strengths, the positive aspects and the challenges successfully faced that emerged from the narration of their life story. In case of stories related to negative experiences, counsellors should favour a reworking of the narration process, focusing attention on features such as resilience, agency, courage and helping clients to recognize the difficulty of the situation, avoiding the attribution of individual faults, and helping them to recognise systemic barriers and social prejudice. All of this should help clients to re-build their own story in a positive lens and start building their future narration starting from the strengths.

Alongside individual career counselling activities, it is also possible to develop structured career intervention to foster the resources above described (i.e., career adaptability, hope, courage) to cope with career transitions, in line with Life Design approach, involving a group of individuals with experience of drug abuse (Nota et al. 2016).

Taking into account the need and the importance to promote the conditions for work inclusion for people with vulnerability, in conjunction with individual career intervention, contextual actions are needed. It is essential to involve social and work contexts in order to encourage positive attitudes towards diversity and uniqueness in those that can favour work inclusion and promote better working conditions for everyone that aim at inclusion and social equity.

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Chapter 20

Late Career Development and Retirement



Gabriela Topa and Carlos-Maria Alcover

It is important to note that age is not a construct, it is a demographic variable. As such, it is simply descriptive and has no explanatory power. Age does not cause changes in personality or job attitudes; it is simply correlated with changes in these constructs.

Heggestad and Andrew (2012, p. 275)

Abstract This chapter describes and integrates recent theoretical and empirical findings on late career development. First, we will review the concept of late career development, focusing on extended work ability among older workers as an objective indicator. We then go through the analysis of selection, optimisation and compensation (SOC) strategies and job crafting as suitable mechanisms to foster late career development. Third, we discuss potential factors which, operating at different levels, could influence in the career decisions of older people. At the societal level, we analyse the differential impact of the economic crisis on workers aged over 55 years and the economic and legal constraints affecting late career development. At the organisational level, meanwhile, we explore the influence of on-the-job and personal training opportunities, examine variables in the family context such as eldercare-work conflict, and individual variables like the occupational future time perspective and the psychological experience of aging. Finally, we analyse the different modalities of late careers, and specifically early and on-time retirement as career solutions, along with senior entrepreneurship and bridge employment.

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Keywords Late career · Retirement · Early retirement · Work ability · Individual experience of aging · Eldercare-work conflict · Occupational future time perspective

Overall life expectancy at birth in the USA was 78.6 years, and somewhat longer for women (81.1 years), in 2016 according to the 2017 report published by the National Center for Health Statistics (Kochanek et al. 2017). In most industrialised nations, the general rise in life expectancy has obliged scientists and policy makers alike to debate the removal of career constraints affecting older people and to revisit conventional ideas of retirement. A growing number of empirical studies and policy proposals posit the benefits of the prolongation of working life beyond traditional or mandatory ages. As result, older people leave the labour market at increasingly older ages.

Meanwhile, the ongoing march of social progress raises the possibility of redefining the conventional concept of retirement, so as to make it not the end of active working life but rather the starting point for fresh opportunities.

This chapter describes and integrates recent theoretical and empirical findings on the core issues concerned in this debate. In the first place, we shall review the concept of late career development, concentrating on extended work ability among older workers as an objective indicator. We then go on to examine selection, optimisation and compensation (SOC) strategies and job crafting as suitable mechanisms to foster late career development. In the second place, we discuss potential factors which, operating at different levels, could influence in the career decisions of older people. At the societal level, we analyse the differential impact of the economic crisis on workers aged over 55 years and the economic and legal constraints affecting late career development. At the organisational level, meanwhile, we explore the influence of on-the-job and personal training opportunities, examine variables in the family sphere such as eldercare-work conflict, and individual variables like the occupational future time perspective and the psychological experience of aging. In the third place, we analyse the different forms that late careers may take, and specifically early and on-time retirement as career solutions, along with senior entrepreneurship and bridge employment (see Fig. 20.1).

Extending Working Lives

As John Bunyan wrote in *The Pilgrim's Progress*, published in 1678, "It is always hard to see the purpose in wilderness wanderings until after they are over". When can a person see the purpose in their own career? Traditionally, a person's career, defined as the sequence of their work experiences over time (Voelpel et al. 2012), was seen as progressing over a number of discrete stages, normally grouped into

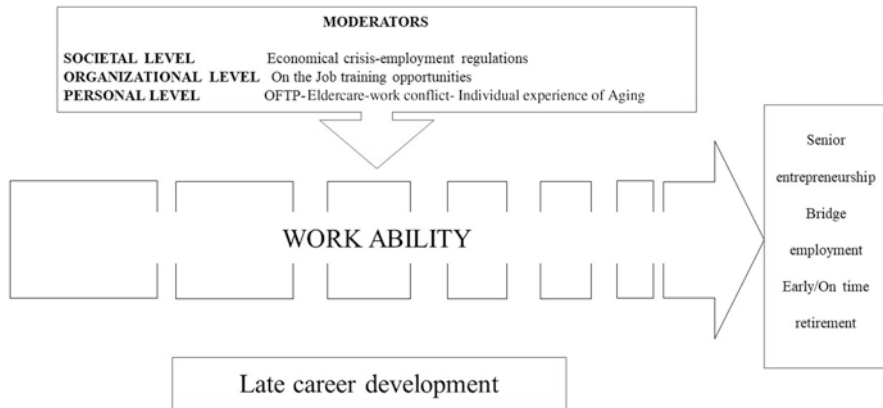


Fig. 20.1 Global model of analysis for late career development

three overarching periods, namely early-, mid- and late career (Herr 2001). This late career period was thus seen as the vantage point from which a worker could look back over the whole of their career and forward to its inevitable end in retirement. We may ask, however, whether this is the only possible scenario for older workers in today’s world.

Late-Career Approaches

The term *late career* is associated with the older worker. In this research field, older workers are usually defined as those aged between 55 and 70 or more (Greller and Richtermeyer 2006; Voelpel et al. 2012). However, chronological age is not always the best criterion to define a person’s physical, cognitive and emotional state, or their actual capacity for work. Chronological age is, of course, strongly bound up with perceptions of the passage of time (Henry et al. 2017), but it does not, indeed cannot, embrace all of the information about a person’s actual condition, or about how different men and women perceive themselves. Let us recall that there is considerable variation within age groups regarding work outcomes, and this variability tends to increase as people grow older (Zacher et al. 2018). Furthermore, several studies have found that differences in job performance within an age group are greater than those between age groups (Ilmarinen 2005), and these differences are consistent depending on the types of tasks considered.

Meanwhile, research findings support the view that chronological age is not a good predictor of workers’ own retirement decisions (Ekerdt et al. 2000). It is also not associated with any kind of intrinsic, extrinsic or other motivation to continue working for the same organisation. If, however, we define *subjective* age as the way

in which people perceive their own general abilities and competences, and their subjective/cognitive assessments of biological age, social age and psychological age (Schwall 2012), we may observe a strong relationship with motivation to work. Specifically, workers who perceive that they still have ample professional opportunities open to them will display greater extrinsic and intrinsic motivation, while those who feel that they have plenty of life yet to live (namely, *future time perspective*; Carstensen 2006) will also be highly motivated in all areas regardless of their chronological age (Akkermans et al. 2016). It has also been shown that the relationships between chronological age and work motivations, professional self-esteem and job security are mediated by perceptions of the remaining time available free of age-related constraints and of good health in general (Kooij et al. 2013). These findings underscore the importance of subjective age and perceived health above and beyond chronological age and objective health.

Late career has been defined as “the work-related choices and reactions of people from 50 to 70 years of age and the economic, social and organisational factors that influence them” (Greller and Simpson 1999, p. 310). Hence, the late career stage involves a range of psychological, organisational, psycho-social and legislative factors (Voelpel et al. 2012), so that a single term is used to describe a highly complex and variable range of experiences. Moreover, it implies increasing individuation of older workers, as differences between them grow over the years while they gain experience with age (Greller and Simpson 1999; Zacher et al. 2018). Paradoxically, however, older workers are usually treated as an undifferentiated mass, whether by social organisations and structures or by researchers and academics. This simplistic view of an increasingly long period of time and embraces an increasingly diverse population represents a serious hindrance to a more profound understanding of the factors affecting late career (Greller and Simpson 1999).

A key issue today is that organisations have lost their ability unilaterally to direct the careers of older workers (Wang et al. 2013). This development has allowed them greater freedom to make their own decisions, and they also generally have greater resources to satisfy personal needs and goals. Nevertheless, both organisations and regulatory and legal authorities retain considerable decision-making power with respect to retirement. Wang et al. (2013) propose a resource-based dynamic model, which emphasises the dynamic and heterogeneous nature of late career experience, conceptualised as career-related adjustment and recognises later life as a time of remarkable transition. Meanwhile, the late career process can increase or diminish physical, cognitive, motivational, financial, social and emotional resources, or indeed leave them largely untouched, following variable patterns which determine the level of each person’s adjustment. In short, then, late career has now come to be viewed like the *wilderness wanderings* of Bunyan’s pilgrim in search of a peaceful retirement. It has become a space for growth, change and entrepreneurship, in which the prolongation of working life, for example by means of bridge employment in any of its different forms (Alcover et al. 2014a), has become an increasingly valued goal among older workers.

Work Ability as a Criterion for the Prolongation of Working Life

As we have already mentioned, chronological age is not the best predictor of a person's true capacity to continue working. The specialist literature on aging and work utilises, rather, the construct of *perceived work ability*, which refers to a person's perceived functional capacity for work (i.e. their perceived ability to continue working in their present job and in the next short term -2 years) in view of the cognitive, physical and social demands and challenges of their job in relation to their available resources (Ilmarinen 2009; Gould et al. 2008). Unlike age considered as an *objective* criterion, *perceived work ability* is a *subjective* evaluation of how a worker feels about him/herself in relation to their job. It was the emergence of discrepancies between these two criteria that led Koollaas et al. (2011) to find better scores on mental health, vitality and social functioning among a sample of older Dutch workers (aged between 60 and 64) than were reported by another younger group (aged 45–49).

Perceived work ability can be evaluated using the Work Ability Index (WAI), a subjective survey instrument comprising seven items (Gould et al. 2008). The WAI scale ranges from 7 to 49 points, and scores are classified as poor (7–27), moderate (28–36), good (37–43) and excellent (44–49). The higher the score, the better the balance of work ability and perceived health status. The WAI has now been translated into 28 languages and is widely used in different cultures worldwide as a standard measure of perceived work ability (Ilmarinen and Ilmarinen 2015).

Since it was first designed and used in Finland in the 1980s and 90s, the results of research in other European countries and the United States have shown that a person's subjective perceptions of their ability to work is a good predictor of job and health outcomes among older workers (Alcover and Topa 2018), disability and mortality in later life (Alavinia et al. 2009; von Bonsdorff et al. 2011a), sick leave (Ahlstrom et al. 2010) and lagged labour force outcomes such as absence, retirement and disability leave (McGonagle et al. 2015).

Researchers have also sought to identify the antecedents that determine perceived work ability. The key factors found in these studies are remarkably consistent. To begin with, factors directly related with a job's context and tasks influence perceived work ability (McGonagle et al. 2014). For example, Alavinia et al. (2009) found that work-related risk factors, high work demands, low job control and reduced skill discretion were all related to lower work ability. Studies have shown that high work demands and low levels of job control are associated with lower perceived work ability (e.g., Büsch et al. 2010), which is consistent with the Job Demands Resources Model (Schaufeli and Taris 2014). Second, both job resources and personal resources play key roles in perceived work ability (Converso et al. 2017). For example, Airila et al. (2014) found that job resources like interpersonal and supervisory relations, task resources and the personal resource of self-esteem all have long-term effects on engagement and, in turn, on work ability after a lapse of 10 years. The perception of having a superior level of skills is also associated with higher work ability (Büsch et al. 2010), as are positive perceptions of

self-efficacy (Ng et al. 2015). In the third place, it has been found that life-style and state of health are antecedents of perceived work ability. For example, Koolhaas et al. (2014) found that perceived health and psycho-social factors (attitude to work and perceived social support) explain the association between chronic illness and work ability. The consistent relationship between an individual's perceived state of health, lifestyle, psycho-social factors and perceived work ability has been demonstrated by multiple cross-sectional and longitudinal studies performed in different employment and national contexts (e.g., Ahlstrom et al. 2010; van den Berg et al. 2008; von Bonsdorff et al. 2011b), supporting the robustness of the relationship.

To sum up, perceived work ability "... is an important human capital of workers throughout their whole career. (...) During aging, the diversity of work ability of workers increases. Also, the diversity of work increases" (Ilmarinen and Ilmarinen 2015, p. 154). Hence, *work ability* may be considered a good predictor of the decision to remain in the labour force beyond the age of 55, and again of the decision to carry on working beyond the usual retirement age, opting for some form of bridge employment (Alcover et al. 2014b). Several factors, of course, come together in these decisions, but work ability is certainly one of the most important insofar as it embodies the perception of personal resources in relation to the demands of the job.

Selection, Optimisation and Compensation, and Job Crafting as the Underpinnings of Late Career Development

Two mechanisms have recently come to the fore in the literature as possibly helping people ensure the viable extension of their working lives beyond the normal retirement age (Kooij 2015a; Maree 2015; Zacher and Kooij 2017), although neither has so far been fully integrated into the standard model of late career development (Fasbender and Deller 2015). The first of these focuses more on the person (Kahana et al. 2014), while the second concentrates more on the job itself (Kooij et al. 2015). On the one hand, people may adopt a whole range of strategies to address job demands more efficiently taking into account the changes associated with aging (Kooij 2015b; Zacher 2015a). For example, SOC appear as a set of strategies that can be implemented together to arrive at a positive balance between the gains and losses associated with age (Zacher 2015b). Meanwhile, people may make an active, conscious effort to adapt their jobs to their own skills and abilities. Though open to workers of any age, this behaviour, which is known as *job crafting*, is highly suited to older workers, as noted by Kooij et al. (2015).

In the first place, in their examination of successful aging, Baltes and Baltes (1990) observed that older adults may use SOC strategies to mitigate the decline experienced as they age. The discontinuities associated with age involve a wide range of physical and cognitive changes (Yenilmez 2015), which often appear accompanied by variations in emotional regulation (Scheibe and Zacher 2013),

personality traits (Roberts et al. 2006) and motivations (Kanfer and Ackerman 2004). People cope with these changes by adopting three kinds of strategies.

In the first, older people may actively fix on those aspects of their professional career or job that are most important to them. As a part of the selection mechanism, they may also intentionally pass over any dimensions of their personal development that are not adequate, accessible or satisfactory for them, for whatever reasons. At the same time, they may seek to optimise their resources and skills to achieve goals in the selected areas. Finally, they may also turn to cultural or technological artefacts to supplement their abilities and so offset the toll taken by advancing age. A key consequence of this model is, then, that people who coordinate or synchronise the use of such strategies may be better placed to respond effectively to the constant need to adapt to the demands of their job. Hence, those who most successfully apply these strategies will adapt more easily and will find themselves equipped with more potent tools to develop their late careers (Zacher et al. 2015; Zacher and Yang 2016). Numerous researchers have studied SOC strategies empirically in recent years (among others, Müller et al. 2016; Robinson et al. 2016; Schmitt et al. 2012; Shang et al. 2015; and Zacher and Frese 2011), and a meta-analysis of key findings has been published by Moghimi et al. (2016), providing solid empirical support for the positive influence of SOC on overall occupational performance and well-being (i.e., job satisfaction and engagement), among other outcomes.

Though this meta-analysis associates subjective and objective career success, the intention to continue in bridge employment, focus on opportunities, and work ability with the use of SOC, the fact remains that meta-analytic associations were based on only a small number of effect sizes from primary studies. In a pioneering study, Abele and Wiese (2008) showed that SOC strategies are specifically related with objective and subjective career success, although the subjects of the study had not, in fact, yet reached the late stage of their careers. More recent studies have focused specifically on the work ability of older workers (Müller et al. 2012, 2013; Riedel et al. 2015), finding positive associations with the use of SOC. In a very recent paper, Taneva and Arnold (2018) describe a study of older workers in the United Kingdom showing indirect relations between optimisation and job performance via the experience of *thriving at work* as a matter of growth, learning and vitality. However, certain contradictory findings have also appeared. For instance, Weigl et al. (2013) showed that work ability was lowest for those workers with high use of SOC combined with low job control, revealing the need to keep up research to put these relations on a sound footing.

To focus on the job itself, meanwhile, workers in general, and older workers, can deliberately ‘craft’ their jobs and by doing so encourage the development of late careers. Job crafting means the adoption of concrete, proactive behaviours at work, which can enable employees to actively change both the characteristics and their perceptions of their jobs (Tims and Bakker 2010). Job crafting has its roots in the job demands-resources (JD-R) model (Bakker and Demerouti 2007, 2013, 2017). It is important because it links work motivation with personal and work resources, facilitating a better fit between the individual and their job (Rudolph et al. 2017). Similarly, the model of aging and proactivity at work proposed by Zacher and Kooij

(2017) postulates that age-related changes in personal traits will influence cognitive-motivational and emotional processes, in turn affecting the proactive behaviours expressed in job crafting, among other manifestations. Acting in different dimensions (by boosting the structural resources required for the job and the social resources of the worker, increasing the level of challenges and lowering the level of threats), proactive behaviour of this kind can also have a positive influence on late career development.

The current hypothesis rests on the idea that employees apply and benefit from job crafting (Wrzesniewski et al. 2013) because of its power to shape work meaning and work identity. Job crafting can also change the meaning of work, because it has the power to alter the tasks and social relations required of a job, allowing employees to positively reset the purpose of their posts and their experience of work (Wang et al. 2017). The positive meaning of work is constructed from those elements which make it into a valuable and worthwhile activity (Fasbender et al. 2015). Furthermore, job crafting offers a powerful tool to change the ways in which a person defines who they are at work, moulding their own work identity. Work identity is always complex, of course, and may also include organisational, professional and group identity. Nevertheless, various scholars have argued that job crafting can have positive effects on job identity by modifying tasks, relations and cognitive aspects of work (Dutton et al. 2010; Wrzesniewski and Dutton 2001). Expanding on these proposals, Kooij et al. (2015) underscore three kinds of job crafting which may be particularly important for older workers, namely accommodative crafting, developmental crafting and utilisation crafting.

Nevertheless, the empirical evidence supporting these hypotheses is still limited. According to a meta-analysis performed by Rudolph et al. (2018), job crafting displayed consistent relations when the focus was on promotion (one of the dimensions of the occupational future time perspective) in 12 empirical studies (sample-weighted $r = .43$). These relations were found to be stronger in the sub-dimension formed by the increase in challenging demands (sample-weighted $r = .44$) and were slightly weaker for the dimensions concerned in the accumulation of structural resources (sample-weighted $r = .37$) and social resources (sample-weighted $r = .36$). The relationship was almost non-existent in the case of threat reduction, however (sample-weighted $r = .02$). Some time ago, meanwhile, Mainiero (1994) argued that the search for more challenging jobs, one of the possible job-crafting mechanisms, is an important prerequisite for career development (Di Fabio 2016; Di Fabio and Mareé 2013). Whether because it positively influences work attitudes (high work engagement, Vogt et al. 2016), increases performance (Petrou et al. 2015) or encourages the pursuit of challenging job assignments (Mattarelli and Tagliaventi 2015), job crafting may, then, represent an especially important opportunity for older workers, allowing them proactively to develop and manage their late careers.

In short, though empirical research into job crafting and its influence on late career development is still needed, it is clear that these relations are at least consistent in theory. In this regard, future research will need to investigate the forms of job crafting preferred by older workers in order to foster a better fit between such

individuals and their jobs, which would in turn help them cultivate their professional careers long term (Zacher et al. 2018).

The Influence of Personal and Contextual Factors on Late Career Development

Given that late career development involves and affects the financial, legal, organisational, family and personal spheres, the process is exposed to the influence of numerous factors operating on various levels (Voelpel et al. 2012). This section does not present an exhaustive review of these variables, which would be beyond the scope of this chapter, but will draw the reader's attention rather to the potential influencing factors that have recently come to the fore. To begin with external influences (see Fig. 20.1), we shall consider the societal plane, the differential impact of the economic crisis on opportunities for the promotion of older workers, and the influence of regulatory and economic conditions in different countries on the likelihood of older workers' finding themselves obliged to end their professional careers prematurely. On the organisational plane, we will look at the available opportunities for on-the-job training. Ending on the personal plane, we will also examine the family influence of the eldercare-work conflict, as well as the individual features of the occupational future time perspective (OFTP) and the psychological experience of aging.

Differential Impact of the Crisis on Older Workers

The great economic crisis of 2007–2009 and its aftermath, which is still very much with us, brought about apparently irreversible changes in the conditions of work in industrialised nations and in the economies of emerging nations, among them an increase in joblessness that has receded only very slowly and incompletely (Cho and Newhouse 2013). While the crisis affected all workers, the situation appears very different when it is the impact of recession on older workers that is considered (Johnson 2012).

To begin with, the recession was accompanied by a sharp increase in the rate of unemployment among older workers, at least in the USA, as Munnell, Muldoon and Sass pointed out in 2009. There were two reasons for this: on the one hand, the participation of older workers in the labour market actually increased, while on the other, their job insecurity worsened in comparison with younger people. Similar results were found in a recent study of 12 European nations and Israel by Axelrad et al. (2018), and in earlier research done in Australia (Kendig et al. 2013). This macroeconomic development jeopardised late career development among older workers in the context of the recession.

However, the increase in joblessness was not the only negative consequence of the economic crisis, and the recession also appears to have affected career development opportunities, which we may define as the probability of promotion and job security among workers beyond 50 years of age. Addison et al. (2014) examine data from the National Longitudinal Survey of Youth 1979 (NLSY79) between 1996 and 2010, finding that the probability of promotion declined in the period of the crisis, and that promotion rates for both genders in mid career also dipped, more sharply in fact for men than for women. When the changes associated with the economic crisis in Europe and Israel are examined in relation to career development among older workers, the findings confirm the negative impact of the crisis on promotion and job security among this group (Axelrad et al. 2018). The authors of this study found a significant relationship between the higher rates of unemployment in the target countries and the decline in promotion opportunities available to European and Israeli workers over the age of 50. When these results were broken down, it was found that public sector employees and civil servants were better protected from the crisis, as was to be expected.

Furthermore, the direct negative impact of the crisis on the career development of older workers was accompanied by other indirect impacts in the form of job stress and health outcomes (Modrek et al. 2015). Wage earners at plants that laid off large numbers of workers endured greater stress between 2010 and 2012 than their counterparts at plants that were largely spared the trauma of redundancies (Modrek and Cullen 2013b). These findings match those of other studies using representative samples, which point to rising levels of work-related stress between 2006 and 2009 for middle-aged, college-educated white males in full-time employment (Cohen and Janicki-Deverts 2012). Meanwhile, a number of studies convincingly link job insecurity resulting from the crisis, for example in the case of mass redundancies, with detrimental health outcomes among the surviving workforce, measured in terms of increases in the use of medication (Modrek et al. 2015) and a higher incidence of illnesses like high blood pressure, diabetes, asthma and depression (Modrek and Cullen 2013a). While the relationship between increased stress and worsening health caused by job insecurity, on the one hand, and adverse career developments on the other, has yet to be empirically grounded, the negative impact of these variables on late careers is a plausible hypothesis in light of the evidence to suggest that job stress and poor health are predictors of retirement planning and decisions, as found in a meta-analysis by Topa et al. (2009).

Regulations and Their Impact on Late Careers Be this as it may, the economic crisis does not appear to be the only threat to loom over late careers: despite the efforts of many developed countries to encourage citizens to extend their working lives, there is no lack of voices protesting that many older workers find themselves forced out of working life (Brand 2015). Using data on 3446 European workers above the age of 50 who took part in the Survey of Health, Aging and Retirement in Europe (SHARE), Hyde and Dingemans (2017, p. 231) show that "... the route through which older employees are forced out of work changes because of employment protection legislation". The authors conceptualise 'forced exit from the labour

market' broadly, including not only early retirement arrangements, but also unemployment in later life and increasing disability pension enrolment (Kyyrä 2015). Their findings show that the majority of older adults in the countries analysed do not feel that they were forced to leave their jobs. However, one in five older adults claims that they were obliged to stop working as a result of structural factors even in Sweden and Switzerland, where the incidence of forced career exit is lowest. In countries like Estonia, Spain and Poland, meanwhile, almost half of older adults experienced their exit from the labour market as an unwanted imposition. It is, of course, costly to lay off older workers in countries that have strict employment protection legislation, and as a result it is common for employers in such places to instrument forced labour market exit through retirement. Hence, "in countries with higher levels of employment protection legislation, the likelihood of forced exit through retirement is higher than in countries with lower levels of employment protection legislation" (Hyde and Dingemans 2017, p. 238). So, the higher cost of lay-offs means older workers are more likely to find themselves bundled into retirement instead. The downside effects of unemployment have been amply documented, as have the usually much lower rates of re-hiring among older workers (Fournier et al. 2011). Nevertheless, the fact remains that unemployment is foreseeably temporary, while early retirement brings older workers' chances of late career development to an abrupt end. Despite the numerous factors involved in late career development, as outlined above, it cannot, therefore, be argued that macroeconomic conditions have no effect on this process, though it is also influenced by family and personal considerations, as we explain below.

On-the-Job Training Opportunities for Older Workers

As we have explained above, late career development also depends on factors operating on the organisational plane, such as opportunities to receive on-the-job training. According to the 2015 Working Conditions Survey (Maestas et al. 2016) carried out in the USA, both the need for training perceived by workers and the opportunity to receive it vary with age. Only 6% of non-university-educated workers younger than 35 say they need more training to cope with the demands of their present job, while this percentage drops to 3% among those aged 35–49 and to only 2% among those aged over 50. These differences disappear, however, in the case of university-educated workers. Turning to training actually received, however, 62% of men and 68% of women below the age of 35 have received some kind of training, and especially on-the-job training, while only 46% of men and 49% of women have received training in the case of workers older than 50. Some scholars have argued that one possible explanation for this difference is that older workers usually have, or believe they have, the skills required for their jobs and do not need training.

However, this reality should be viewed in relation to other data which show that workers aged 55 and older are those who suffer the highest percentage of fatal accidents at work, as by (Hopler 2018) based on data reported in the 2016 Census of

Fatal Occupational Injuries. People above the age of 55 years suffered 36% of fatal occupational accidents in the United States in 2016, even though this age group accounted for only 23% of total US workers in that year. These accidents occurred in very diverse areas of activity, and although no clear link can be established between the job skills needed and these accidents, we may at least wonder how far workers belonging to this group are offered the opportunity of training to help them maintain efficiency and personal well-being as they enter the late stage of their careers. To sum up, it is now unanimously agreed that older workers can and should be encouraged to prolong their working lives, but it is not so clear that the training opportunities offered to these workers help them successfully to develop their late careers.

Eldercare-Work Conflict, OFTP and Psychological Experience of Aging

On the personal plane, numerous factors exert an influence, whether positive or negative, on late career development. In this chapter, we will look at three of these, which have attracted the most attention in terms of empirical research in recent years.

Workers who look after elderly family members often experience problems maintaining a balance between their jobs and their care obligations, a phenomenon that has been called the ‘eldercare-work conflict’ (Henry and Desmette 2017). In the USA, for example, two thirds of old people who are not institutionalised are cared for entirely by family members, normally a daughter or a son, who are themselves employed. Some 57% of such carers remain in employment, according to data from a representative national survey. The 2009 Report published by the National Alliance for Caregiving reveals, based on a sample of 917 subjects, that caring for elderly people is associated with various work-related impacts, including absenteeism (20% of subjects), leaving (9%), interruptions at work (66%), reductions in working hours and shifts into less demanding jobs (12%), passing up promotion (6%), the loss of job benefits (6%), and requests for retirement (3%). Moreover, the impact of caring on the lives of carers is greatest among those who provide intensive care (i.e. more than 21 hours per week), share their lives with the person they care for, or are the principal carers. In a study of 1285 subjects in Slovenia, meanwhile, Tement and Korunka (2015) examined the impact of different kinds of family care, finding that members of the “sandwich generation” (i.e. those who still have children living at home but who also care for elderly family members) are especially likely to encounter problems due to family-work conflict.

Health impacts on carers are well documented, among them depression and other complaints and disorders (Hayslip et al. 2014). In this light, the detrimental effects of caring on carers’ careers may not be confined to direct impacts on job performance while they are still actively engaged in looking after elderly family members, but may also extend to late career development over the medium and long term via retirement decisions and/or deteriorating health. While the impact of the eldercare-

work conflict on late career development seems clear, some early studies in this area suggest that the effects may be broader than initially imagined, because it is not only direct impacts that are involved, but also other factors like the occupational future time perspective. Treadway et al. (2011) suggest that work-family conflict drives down levels of commitment, and this negative influence is more intense for workers whose future orientation is more limited, which is to say older workers. Henry and Desmette (2017) recently showed that family-work conflict not only has a negative influence on the occupational future time perspective but also appears to cause a reduction in the use of effective strategies to address the related problems.

In the context of late career development, then, it would seem especially important to examine the role of the occupational future time perspective (or OFTP) (Zacher and Frese 2009), which may be defined as a flexible cognitive-motivational trait which varies over time (Carstensen 2006; Cate and John 2007). OFTP thus consists of a person's perception of the future time left to them in working life, and it is made up of three dimensions, namely focus on opportunities, focus on limitations, and perceived remaining time (Zacher 2013). The first of these dimensions takes in perceptions about the goals, opportunities and possibilities remaining to a person in working life, while the second is focused on limitations and constraints. Meanwhile, the perceived remaining time dimension refers to the time which individuals believe remains to them in the world of work before they finally retire. This variable is clearly important in late career development.

In a quantitative review of the OFTP literature, Henry et al. (2017) found 16 empirical studies revealing consistent relations. OFTP changes with age, insofar as older people perceive less opportunities and remaining time, which is only to be expected. Mental health, optimism and the use of SOC strategies are also positively related with the focus on opportunities. Some studies have explored the influence on OFTP of job complexity (Zacher and Frese 2009) and organisational climate (Zacher and Yang 2016). More interesting, however, are the consequences, given that the focus on opportunities dimension has been found to be consistently related with motivation to continue working beyond the normal retirement age (Zacher and Yang 2016), the perceived remaining time dimension is positively associated with motives to grow and a learning orientation (Kooij and Zacher 2016), and general OFTP is associated with a reduction in retirement intentions (Bal et al. 2015). Perhaps one of the most interesting findings is that complexity and control appear to be positively associated with the remaining opportunities at work dimension, so that older workers who have more opportunity to decide for themselves in their jobs are likely to be more optimistic about their future in work (Zacher and Frese 2009).

Though the number of empirical studies is still small, the evidence looks promising, insofar as OFTP appears to interact with other variables, influencing behaviours like intensive job search among older workers, which may help drive late careers. In this regard, it would be necessary also to explore possible cultural variations in OFTP, given that cultures are defined and differentiated by the time orientation dimension (Rudolph et al. 2018).

We cannot close this brief explanation of the potential moderators of late career development without considering the psychological experience of aging (Fasbender

et al. 2014). Research has often pointed to individual cognitions associated with aging as a factor in shaping behaviour, but this general assertion still remains largely unsupported by the relatively few existing studies, which tend to concentrate on the relationship between health and subjective well-being (Steverink et al. 2001; Wurm et al. 2007). At the end of the day, chronological age is merely a number, and it provides scant information about what aging actually means to people. The individual experience of aging, in contrast, could predict specific behaviours associated with late career development (Fasbender and Deller 2015), like job seeking or the decision to continue working beyond the normal retirement age (Fasbender et al. 2014).

The psychological experience of aging is a multidimensional construct referring to the different individual cognitions related with the process of aging as it affects a person (Dittmann-Kohli and Westerhof 1997). This process occurs in various different areas, and it includes both positive and negative experiences associated with the changes that come with aging. Based on a review of published research, the psychological experience of aging can be conceptualised in four dimensions, two of them positive and two negative. The positive dimensions consist of personal growth and gains in self-knowledge, while the negative ones involve physical and social losses. The physical losses dimension describes the process of aging as a decline in physical ability and energy, while social losses refer to feelings of diminished respect and that one will not be missed, together with a waning of social contacts. As a positive dimension, personal growth captures the experience of aging as a process of ongoing personal development, which includes learning new skills and improving personal abilities. Finally, the self-knowledge dimension addresses the ideas of self-acceptance and compensation, such as awareness of one's own abilities and the development of methods to overcome personal limitations (Fasbender et al. 2014).

Given that the psychological experience of aging is a personal assessment of an ongoing process affecting an individual, it involves a certain power to foresee and to influence that person's future decisions. This looks important from the standpoint of late career development, insofar as it could have some degree of potentiality to structure the decisions a person makes about their future retirement and post-retirement activities (Dittmann-Kohli and Westerhof 1997). Some cumulative empirical evidence does exist regarding the possibility that positive experiences of aging lead to positive outcomes, and that negative ones, lead to negative outcomes (Steverink et al. 2001; Wurm et al. 2007).

The work of Fasbender et al. (2014) provides the first empirical evidence with regard to the association between the psychological experience of aging the decision to carry on working beyond the minimum retirement age. This longitudinal study, which was performed on a sample drawn from the German Aging Survey ($N = 551$), shows that the psychological experience of aging may encourage people to go on working for an additional 10 years or so, especially in the case of those whose main experience involves social losses and personal growth.

Although the social loss dimension is negative, it is possible that those retirees who have experienced losses may involve themselves in work as a compensation mechanism, making up for what has been taken from them through the social contact that their job provides. The personal growth dimension includes positive views

of aging, and it is reasonable to suppose that some older people may involve themselves in work after retirement as a means of achieving personal growth. The authors of the study found evidence for a negative and significant relationship between the self-knowledge dimension and involvement in post-retirement work, which may be because these individuals are clearly aware of their limitations and seek activities in which constraints do not pose a problem, such as non-work activities (Fasbender et al. 2014). However, they did not find any statistically significant relations between the experience of aging in terms of physical loss and continuation in work.

The more recent study conducted by Fasbender et al. (2019) was based on a longitudinal sample of 586 subjects in the UK, and it found a relationship between the individual experience of aging and late career planning. Specifically, the personal growth and social loss dimensions exert positive influences, while physical losses generate negative influences. This evidence is, of course, still only preliminary, but it seems to offer a promising avenue of approach insofar as the experience of aging includes both positive and negative components and both appear to be significantly associated with late career development. The possibility that the psychological experience of aging creates attraction and avoidance mechanisms, which in turn affect late career development behaviours, thus offers a promising avenue for future research and intervention.

To sum up, late career development is a personal process, but it is subject to multiple influences described in this section. People experience aging in a very personal way shaped by events in the societal, organisational and family spheres, and it is in this context that they make the decisions leading up to their eventual exit from working life, as we explain in the next section.

Retirement and Other Forms of Late Career Development

As we explain below, the concept of retirement has changed considerably over the last two decades, which has in turn transformed the meanings of late career. This section examines the main factors involved in early retirement, on-time retirement and senior entrepreneurship considered as a form of bridge employment.

Early Retirement

Early retirement (hereinafter ER) may be defined as a complete exit from work or a job decided by a person in mid to late career before reaching the mandatory retirement age. Its purpose is to reduce involvement in work and bring to an end the process of psychological distancing from the condition of worker on which the person affected usually embarked some time previously. Some theoretical reviews of ER have underlined that the features conventionally used to define the construct (age, seniority at work and eligibility) no longer shed as much light as they once did on early retirement decisions (Feldman 2013), suggesting that it has become

necessary to consider both objective and subjective definitions of ER. Fisher et al. (2016) have recently reviewed the empirical literature and proposed a model to understand the retirement process from a temporal standpoint, which helps analysis of ER by grouping antecedents in the occupational, family and personal planes. Meanwhile, Topa et al. (2018) provide a meta-analysis of 151 empirical studies involving a total of 706,937 participants based on this theoretical model.

The main antecedents of ER include family attraction ($r = .19$), organisational pressure ($r = .22$), financial security ($r = .22$), poor physical or mental health ($r = .20$) and job stress ($r = .16$) as promoters, and job satisfaction ($r = -.16$) and earnings ($r = -.13$) as negative antecedents. Reviews of the literature, meanwhile, have not found any strong adverse health impacts, although this is one of the most hotly debated issues in the field. In terms of consequences, the strongest impact of ER falls in the area of social relations ($r = -.25$), while the negative relation with financial satisfaction is somewhat lower ($r = -.15$). In contrast, ER has a positive impact on satisfaction with retirement ($r = .12$) and participation in leisure activities ($r = .12$). These findings may not seem to add up too much, but they do in fact shed a revealing light on the moderating effect of voluntariness on the relationship between ER and its consequences. According to the meta-analysis, the negative relationship between income and ER is stronger among those whose retirement is involuntary. Likewise, ER causes deterioration in physical and mental health, and this effect is more acute among those claiming that they were forced to take early retirement.

Many workers claim that they want and expect to continue working for some years to come, even beyond the age of retirement, and that they consider their health good enough to do so (Collinson 2017), but those who succeed in doing so are far fewer. In this regard, we need to continue investigating if we are to understand the constraints faced by older people in developing their late careers, and to identify what strategies will help them overcome the obstacles in the way of those who want or need to continue working into their old age.

On-Time Retirement

In the last two decades, the conceptualisation of working life and retirement as two contrasting states has been rendered obsolete in most developed countries (Cahill et al. 2015). These are no longer two mutually exclusive and unchangeable situations but may exist side by side and interchangeably above a given age. The trend towards the prolongation of working life through alternative employment formulas has thus come to replace the concept of *trajectory* by one of *transition* to define the work-life cycle (Elder and Johnson 2003). As a consequence, retirement develops over time, so that older workers progressively loosen their psychological bonds with the world of work until they finally retire completely (Wang 2013; Wang et al.

2011). As a socio-occupational category, then, *on-time retirement* is closer to a *fuzzy set* than to an experience with clear-cut temporal and psychological bounds.

Meanwhile, different formulas for the transition towards retirement or gradual retirement have become ever more frequent in the lives of older people (Cahill et al. 2015), including ‘progressive retirement’, ‘partial retirement’, ‘bridge employment’, ‘re-entry’ after a period away from work, and even ‘civic engagement’ (Moen 2012). In short, retirement has come to be conceived as a process that is rolled out over many years, displaying differing degrees or intensities of transition from full-time working to final retirement (Wang and Shultz 2010). According to Phyllis Moen (2012), ‘viewing the retirement transition as an emergent project underscores the dilemmas and decisions about the timing of exits and changes in both public engagement and the temporal rhythms of daily life’ (p. 552). This view of retirement as a complex process has given rise to a range of models, which seek to capture its different phases and the forms it may take.

One of the most representative of these models was proposed by Feldman and Beehr (2011). It consists of three phases in which older workers (1) imagine the possibility of retirement, (2) consider the timing of their exit from working life, and (3) finally take the plunge and embark on the transition towards retirement. Phases 2 and 3 are both directly linked to on-time retirement. Various theories have been proposed to explain these two phases.

In outline, however, the processes and variables involved comprise the following: (a) declining involvement in working life and psychological distancing from work (approach to life stages); (b) the existence of social (cultural, national and organisational) norms, which reflect the expectations attached to a given age range in relation to the specific life transitions that need to be made (socio-normative or development theories); (c) social pressures on older people to retire and adopt a progressively marginal or secondary role in social life (disengagement theory); (d) the effect of a person’s regard or dislike for their own job on their expectations of retirement, and the related inverse effect of rejection or attraction to the idea of retirement (approximation-avoidance based motivation theory); (e) perceptions of fit between personal traits (skills, interests, physical and mental resources, etc.) and the characteristics of an individual’s job (demands and resources), which may cause an older worker to expect a long working life or, on the contrary, to anticipate retirement as early as possible (personal-environmental fit theory); and (f) the theory of selection, optimisation and compensation (SOC) discussed above, which predicts the extent to which work will allow a person to utilise one of the three strategy types and thereby to create the conditions for a longer working life, or otherwise to seek retirement at the earliest possible age as their life goal. In short, the key retirement variables in this second stage of the retirement process according to the model proposed by Feldman and Beehr (2011) refer to the moments reflected in actions like finally leaving one’s job, accepting a new (usually part-time or temporary) job or accepting a retirement pension or the terms of an early retirement scheme.

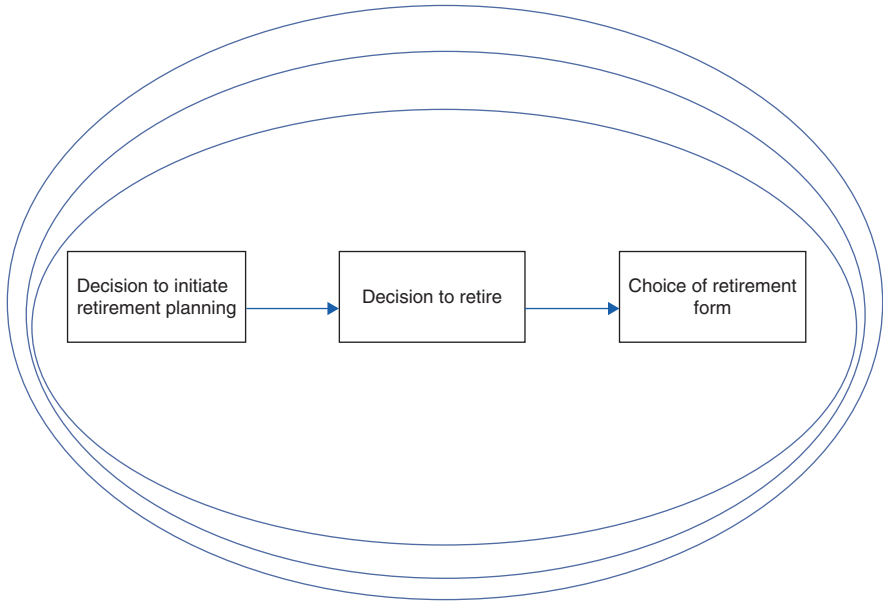


Fig. 20.2 Key decisional milestones in the retirement process. (Adapted from Jex and Grosch 2013)

Jex and Grosch (2013) consider that there are three key sequential milestones in the retirement process, as shown in Fig. 20.2.

Cahill et al. (2015) recently proposed a suggestive model to illustrate retirement options. These authors identify six periods through which older workers pass (or may pass) in their transition from full employment to permanent or definitive retirement. Period 1 refers to the situation of an individual who keeps a full-time job within their professional field, which he/she could prolong for differing lengths of time after reaching the age of 50. Period 2 is referred to as phased retirement from the career job typical of phase 1, involving a variable reduction in the number of working hours. As in the case of period 1, this stage may last a variable number of years. Period 3 consists of a bridge job (or jobs), involving a variable reduction in the number of working hours compared to the previous job over a period of years. Period 4 consists of temporary retirement or a pause in which the individual may leave the labour market, but not with the intention of moving on to definitive retirement (for example, to recover from health problems or to care for a spouse or family member). Period 5 consists of re-entry, and it involves a return to work, either in the same or in a new job, with a variable number of hours. This stage may again last for one or more years. Finally, Period 6 consists of complete withdrawal from working life (retirement), when the individual permanently gives up their job.

The choices and opportunities arising over the course of some or all of these periods will depend on macroeconomic factors (e.g., the situation of the labour market), organisational factors (e.g., policies applied to the retention of older works, and to the recruitment and hiring of early retirees), work-related factors (e.g., work conditions, levels of work-related stress, job satisfaction), and personal factors (e.g., health condition, income level, family situation) (Cahill et al. 2015; Mulders et al. 2015). Hence, these factors and others like them will condition the number and duration of the possible career transitions through which older workers pass.

Senior Entrepreneurship and Bridge Employment

Self-employment and entrepreneurship are currently believed to offer a possible solution to the problem of population aging and the concomitant need for mechanisms to prolong working life (Sapleton and Lourenco 2015). This could be achieved in two ways. First, the general trend is for the self-employed to stay in work for longer than wage-earners. And second, policies designed to foster self-employment could stimulate wage-earners too to take this option after conventional retirement (Sapleton and Lourenco 2015), turning it into a form of bridge employment (Alcover 2017).

In general, the term self-employment is used to refer to independent consultants, sole traders, entrepreneurs and social entrepreneurs (Pitt-Catsoupes et al. 2017). However, the concept of entrepreneurship itself can be defined in a variety of ways. It is generally associated with aggressive, creative or innovative methods of creating new businesses. Indeed, one widespread stereotype equates entrepreneurship with youth and masculinity (Ainsworth 2015). A broader definition, however, would include any form of sole trader business or self-employment, embracing both innovative and traditional businesses but without stipulating any minimum dedication in terms of hours of work per week or percentage ownership of the enterprise in question, or requiring any specific legal structures, size, or expected levels of turnover or profit. For many entrepreneurs, in fact, the main motivation may be couched rather in terms of personal and social goals than financial targets.

Entrepreneurship is an alternative that may well suit latecomers to self-employment, because it is a stance that embraces many of the strategies applied by older people to achieve their goals through work and business (Rogoff 2009). Another advantage of this approach is that there are no age-limits to enterprise as practically any amount of time can be dedicated to such activities. A person may start a business either because they need to do so or because they want to. Enterprise may stem from either need or opportunity.

Available data on enterprising behaviours (most of which refer to the United States) show that entrepreneurs above the age of 55 were more motivated than their

younger colleagues by the opportunity to use their skills and competences, to contribute to society and to gain greater job satisfaction (Rogoff 2009). According to data published by the US Bureau of Labor Statistics, 9.6% of jobs in the United States consisted of self-employment in 2016 (around 15 million jobs). Furthermore, the data reveal that the highest rate of entrepreneurship has belonged to the over 65 s and not to any younger age group for the last decade (Hipple and Hammond 2016), spawning neologisms like *oldpreneurs*, *grey entrepreneurs* and *seniorpreneurs* (Halvorsen and Morrow-Howell 2017).

Another example of this trend can be found in the United Kingdom, where the *Pension Led Funding* scheme was created around a decade ago. This is a financial arrangement which allows the over-55s to dispense with mandatory monthly payments and capitalise their pensions as an investment fund, which can be used to set up a business or join an existing firm as a partner. This measure allowed between 80,000 and 120,000 older people to start a business in the UK in 2015 alone, and it is expected that at least 500,000 pensioners will join the ranks of the senior entrepreneurs in the coming years.

Several psychological variables have been identified which may predict the level of fit between the individual and entrepreneurship. Among the most important are self-efficacy, the ability to recognise opportunities, perseverance, psychological capital and social capital, or a high level of social skills (Markman and Baron 2003). However, profiles of entrepreneurs also need to take into account the possible effects of other personal traits, such as the impact of the decision to start a business on older people's time perspectives. Assessments of successful entrepreneurship may vary significantly depending on the number of years the entrepreneur can expect to go on living (and to remain healthy enough to keep working), and a series of other factors like the number of years the business lasts, the rate of return on the initial investment and the risk horizon must also be considered (Das and Teng 1997).

The data consistently show that businesses set up by older entrepreneurs tend to be both more numerous than those created by younger entrepreneurs and to last longer (Kautonen 2008; Rogoff 2009). This is usually attributed to the greater financial capacity and larger stock of psychological and social capital built up by older workers. Meanwhile, the data show that older entrepreneurs tend to be less well educated and trained than their younger colleagues (Weber and Schaper 2004), a limitation that seems to be offset by their store of professional and personal experience.

Among those who approach the phenomenon as a form of bridge employment, von Bonsdorff et al. (2017) identify the principal antecedents of entrepreneurship. In the first place, it is more likely that people who decide to continue working after reaching retirement age will opt for the same form of employment as previously (i.e., the self-employed are more likely to opt for entrepreneurship of some kind rather than seeking a salaried bridge job). These findings are consistent with the continuity theory proposed by Atchley (1999), which posits that people will continue in the same or similar activities throughout their working lives. In the second place, the late workers who are most likely to opt for bridge employment via some form of business venture of their own rather than settling for retirement are better-educated

men who have experienced relatively little previous stress, have broad interests and are in good health. Finally, men with more years of formal education and relatively high incomes are more likely to opt for a self-employed rather than a salaried bridge job (von Bonsdorff et al. 2017).

Given the observable increase in self-employment among older people, researchers have begun to show ever more interest in identifying its antecedents. One recently proposed model (Halvorsen and Morrow-Howell 2017) seeks to identify the most important, differentiating between individual and contextual factors. Individual antecedents include chronological age in combination with the future time perspective, generativity, the pursuit of independence at work, and a high level of available human, social and financial capital. Finally, it is postulated that human, social and financial capital, career history, future time perceptions, personal values and preferences, personality traits and risk tolerance will be more important predictors of self-employment among older people than chronological age alone.

It terms of contextual factors, it is postulated that responsibility for caring for family members can be both positively and negatively associated with the search for self-employed solutions among older people, depending on their family care needs and if they are already self-employed (working hours, stress levels and distance between the job and home). It is also likely that the choice of self-employment among older people is influenced by social, community and economic factors, which may either facilitate or inhibit the decision. Finally, any combination of antecedents may act either as push or pull factors for older workers, but it is predicted depending on their personal situation, preferences and values that push factors will appear more frequently than pull factors (Halvorsen and Morrow-Howell 2017). In short, self-employment and entrepreneurship among older people currently constitute one of the more versatile and attractive forms of bridge employment (Alcover et al. 2014b), allowing people to continue working beyond the conventional retirement age in a more independent, creative and self-regulated job. As Kerr and Armstrong-Stassen (2011) have pointed out, it is likely that people above the age of 60 who are strongly driven by achievement, self-direction and independence will commit more strongly to self-employment and entrepreneurship options than wage-and-salary bridge jobs.

As we have seen, entrepreneurship among older workers is currently a key element of late career arrangements, and it is likely to become ever more important as perceived work ability, health, contextual factors and social norms further demand and support continued working by older people beyond the usual retirement age.

Conclusions

This chapter began with a conceptualisation of late career as a new development. In contrast to conventional conceptions of retirement as the only possible alternative for older workers, the prolongation of working life has now become an alternative

in response both to economic demands and to the psychological needs of people at this stage in their lives. Rooted in extended work ability and senior entrepreneurship, late career development implies recognition of the social capital that older people can contribute to society. Nevertheless, there are still many people who might wish to work but cannot do so, despite the slow steps already taken and the path mapped out by academics and policy makers. Many questions remain to be answered if we are properly to explain the constraints that older workers face in their efforts to find and keep a job, and to identify strategies to help them overcome the obstacles they may encounter.

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Chapter 21

The Vocational Psychology of Agriculture: *Fiat Panis*



Peter McIlveen and Nicole McDonald

Abstract Agriculture is intrinsic to humanity. Sustainable production of food and fibre is literally vital to the human population and the earth’s environmental integrity. From the primary source to the consumer, agriculture involves the work of millions of people working in a vast variety of occupations and industries. Psychology can and should contribute to sustainable agriculture by way of research, development, and practices that effect the attraction, retention, and engagement of workers in occupations embedded in the international value chain, including semi-skilled, trade, and professional work. We argue that vocational psychology has the scientific, technical, and professional resources to make a substantial contribution to agriculture. We conceptualise the “vocational psychology of agriculture” in terms of the Sustainable Development Goals, the paradigmatic lens of the Psychology of Working, and the Social Cognitive Career Theory, and propose an agenda for research and development.

Keywords Psychology of agriculture · Psychology of working · Social cognitive career theory (SCCT) · SDG · Sustainable development goals

Hunger and undernourishment are global problems of pandemic proportion. Fortunately, there is evidence of improved supply of food to those most in need and progress toward *Sustainable Development Goal 2: Zero Hunger*. Among the human population, the number of undernourished peoples has declined from approximately one billion in 1990–1992 to 795 million in 2014–2016 (Food and Agriculture Organization, International Fund for Agricultural Development, & World Food Program 2015). Yet, undernourishment continues to maim and kill children at staggering rates, causing growth restriction, stunting, wasting that has life-long effects, and 45% of child deaths—approximately three million children under 5 years of age (Black et al. 2013; World Food Program 2017). The annual financial cost of undernutrition is approximately US\$3.5 trillion (World Food Program 2017).

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Poverty, conflict, policies, production, population, and climate change are potent causes of undernourishment and its staggering rates of disability and death. All these intertwined factors have cognitive and behavioural correlates. It is people's attitudes, beliefs, interests, decisions, and actions that contribute to the problems of global hunger. Vice versa, it is people who are solving the problems of global hunger by improving production and access to food. Thus, as people are both the cause and cure of hunger, the question to be answered is whether psychology can contribute to mitigating the causes and effects of hunger, and, moreover, enhancing agricultural production and access to nutrition. Can psychology deploy its rich resources of research and practice to positively influence people's attitudes, beliefs, interests, decisions, and actions in ways that make a contribution to attaining Zero Hunger? To that end, in this paper, the *Vocational Psychology of Agriculture—Farming Food and Fibre* (VPA-FFF; McIlveen 2015) is extended as an ethical and scientific program that directs research, education, and policy.

The VPA-FFF is contextualised amidst current initiatives in psychology to progress the Sustainable Development Goals with respect to the Psychology of Working (Blustein 2006, 2013) and decent work (Blustein et al. 2016). The VPA extends the Psychology of Working into the domain of farming food and fibre, and assumes decent work as a fundamental plank of its conceptual platform.

The Ethical Paradigm of the Vocational Psychology of Agriculture

The notion *decent work* is defined in Article 7 of the *International Covenant on Economics, Social and Cultural Rights* and enshrines just and favourable conditions of work, fair remuneration that ensures decent living standards, safe and healthy working conditions, equality of opportunity within the workplace, limitations on working hours, rest, and leisure (UN General Assembly 1966, p. 6). These qualities of decent work are laudable; however, their theoretical and operational meanings in practice may vary considerably, ranging from the subjective perspective of the worker through to objective economic indicators used by the policy wonks (Burchell et al. 2014). The subjective experience of work is the substantive grist of vocational psychology; however, apart from a few notable examples (Athanasou 2010; Di Fabio and Blustein 2016), there is scant evidence of interest in decent work within the mainstream discipline's research and practice literatures. Decent work is very much an emerging topic within vocational psychology which has an extraordinary potential to contribute to research and practice apropos access to decent work.

Access to decent work may be taken as written in developed nations with thriving economies and functional polities in which democracy and the rule of law prevail. Nonetheless, the availability of decent work is not necessarily uniform in developed nations, as unemployment continues to threaten access to decent work. In poorer developing nations, a lack of decent work is more the exception than the

norm. The International Labour Organization's (ILO; 2017b) *World Employment Social Outlook* reports the variable access to decent work. The ILO expects global unemployment to rise 5.7% in 2016 to 5.8% in 2017, which is an increase of approximately 3.4 million from 197.7 million to 201.1 million in 2017. Much of this increase is due to recessions in developing and emerging nations (e.g., 25.9% unemployment in South Africa). Wealthier nations are not necessarily doing so well. USA and Canada, for example, report high levels of long-term unemployment (i.e., >27 weeks) showing no sign of improvement after the global financial crisis (ILO 2017b). Despite the number of low and middle-income nations within greater Asia, the ILO's research reveals that this region is enjoying rates of expanding employment and reducing poverty. And, despite China's and India's ostensibly good unemployment rates in 2016, 4.6 and 3.5% respectively, the number of unemployed persons is more than the entire population of some nations: 37.3 million in China and 17.7 million in India.

Decent work is specifically addressed in *Goal 8: Decent Work and Economic Growth* of the 2030 Sustainable Development Goals (SDGs) (ILO 2017a). Furthermore, decent work is integrated in the other SDGs. The following excerpts from the other 16 Goals highlight the crucial positioning of decent work:

Goal 1 No Poverty (ILO 2017a, p. 20)

Goal 2 Zero Hunger (ILO 2017a, p. 21)

Goal 3 Good Health and Wellbeing (ILO 2017a, p. 22)

Goal 4 Quality Education (ILO 2017a, p. 23)

Goal 5 Gender Equity (ILO 2017a, p. 24)

Goal 6 Clean Water and Sanitation (ILO 2017a, p. 25)

Goal 7 Affordable and Clean Energy (ILO 2017a, p. 26)

Goal 9 Industry, Innovation and Infrastructure (ILO 2017a, p. 27)

Goal 10 Reduced Inequalities (ILO 2017a, p. 28)

Goal 11 Sustainable Cities and Communities (ILO 2017a, p. 29)

Goal 12: Responsible Consumption and Production (ILO 2017a, p. 30)

Goal 13 Climate Action. (ILO 2017a, p. 31)

Goal 14 Life Below Water (ILO 2017a, p. 32)

Goal 15 Life on Land (ILO 2017a, p. 33)

Goal 16 Peace, Justice and Strong Institutions (ILO 2017a, p. 34)

Goal 17 Partnerships for the Goals (ILO 2017a, p. 35)

The nexus of decent work, poverty, and hunger is self-evident. Likewise, are the implications for approximately 2.2 billion people surviving below the poverty line indicator: \$US2 per day (ILO 2017a).

Article 11 of the International Covenant on Economics, Social and Cultural Rights declares the right to a standard of living that specifies access to food, housing, and clothing (UN General Assembly 1966, p. 7). Such basic provisions are patently linked to Article 12 which declares the right to health. The appalling rates of morbidity and mortality due to undernourishment (Black et al. 2013; World Food Program 2017) can be redressed by proper access to food, housing, clothing. As

with the Covenant's Article 7—the right to decent work—there are obvious links among Articles 11 and 12 and the SDG Goals.

Blustein's psychology of working framework (PWF; Blustein 2006, 2013) entreats a commitment by psychology to human rights and, in particular, decent work (Blustein et al. 2016). The vocational psychology of agriculture (VPA) adopts the precepts of the PWF, including the human needs of survival and self-determination (Blustein 2006). What could be more proximal and fundamental to these aspirations than the aphoristic “food on the table, shirt on my back, and a roof over my head”? The VPA extends the PWF's precepts and advocacy for decent work further by taking a definitive emphasis on the SDGs directly related to farming, food, and fibre:

Goal 1 No Poverty: Decent work for all, including social protection, is therefore the main route out of poverty for individuals, communities and countries. (ILO 2017a, p. 20)

Goal 2 Zero Hunger: Decent work in sustainable agriculture and food value chains is therefore crucial to reaching this goal. (ILO 2017a, p. 21)

Goal 12: Responsible Consumption and Production: Decent work for all – in particular green jobs – will contribute to making development environmentally sustainable. (ILO 2017a, p. 30)

Goal 13 Climate Action: Climate change action will ...benefit greatly from the application of the Decent Work Agenda. (ILO 2017a, p. 31)

Goal 14 Life Below Water: Decent work for all, including fair remuneration and working conditions to the world's seafarers and fishers, is a foundation for conserving marine resources and reducing overfishing. (ILO 2017a, p. 32)

Goal 15 Life on Land: Ensuring that protecting the terrestrial environment is integrated into poverty-reducing national and local development strategies requires a focus on decent work for all land workers. (ILO 2017a, p. 33)

Quintessentially, these goals that motivate the VPA are self-evident human rights.

The agricultural revolution was the progressive subversion of plants and animals to satisfy humans' needs. Humans took control of wild grasses to make wheat for bread, vines to make wine, and beasts for meat, milk, and clothing. A sustainable supply of food and fibre throughout the changing seasons created a positive feedback loop between population growth and need. Soon enough, ancient practices gave way to science and methods of production that far surpassed those of the ancients. The ineluctable truth is that humans' agricultural achievements sowed the seeds of wicked problems associated with population growth and movement. Tragically, agricultural production is distributed in distorted markets with so much of the bounty going to waste, despite the millions of people starving every day. Such injustices are well told by authors of dystopian accounts that depict human genius as the source of our collective troubles—we killed God (Nietzsche 1886/2003) only to become one, *Homo Deus* (Harari 2015).

The Science of a Vocational Psychology of Agriculture

Vocational psychology provides a substantive contribution to education, which, like decent work, is inherent to the rights declared in the International Covenant on Economics, Social and Cultural Rights and germane to ensuring progress toward the SDGs. Vocational psychology's research, knowledge-base, and practices are writ large in education. The science and technology of career assessment, for example, contributes to school students' career decision-making, choices, and progress in learning. Evidence of the effectiveness of career interventions is affirmative (Whiston et al. 2017).

Given vocational psychology's positive impact on education, the enticing prospect of vocational psychology having a positive impact on the agenda of decent work and a standard of living is yet to be realised. Consider, for example, the recent emphasis on research into science, technology, engineering, and mathematics (STEM) careers (Le and Robbins 2016), such as engineering (Lent et al. 2007), and attracting and retaining women in that STEM profession (Fouad et al. 2016; Singh et al. 2013). Vocational psychology may very well focus its resources on STEM all the while with a higher rationale of contributing to research, policies, and practices apposite to achieving the SDGs, decent work, and a standard of living. Such important contributions become more salient in light of the FAO's predictions that 1.7 billion workers will leave agriculture in the coming decades (Food and Agriculture Organization of the United Nations 2017). The effects of such a collapse in the agricultural labour force would lead to drastic reductions in supplies of food and fibre, and it will be the poorer peoples of the world who will bear the burden of such scarcity. The positive challenge is to muster vocational psychology's scientific and professional resources to influence policy, programs, education, and workforce development with the aim of attracting and retaining workers in agriculture across the value chain, from on-farm to the household. This ebullient optimism for the potential of vocational psychology must be moderated by the evident lack of attention to the psychology of farming, food and fibre.

Scholars of vocational psychology (Casper and Swanberg 2011) and industrial/organisational psychology (Bergman and Jean 2016) opine the relative emphasis on research into occupations and work that is predominantly professional in its training and qualifications, and middle-class in status, and the concomitant lack of research into trades and lower skilled work. Bergman and Jean found that a mere 7% of literature in top I/O journals in the period 2012–2014 pertained to non-executive, non-professional, non-managerial workers. For the present paper, we conducted a brief scan of articles published in the *Journal of Vocational Behavior* from 2007 to 2017. Using the journal's "Abstract, Title, Keywords" search function, the search terms "laborer" and "semi-skilled" recovered zero articles on separate searches. The search term "agricult*" recovered two and "farm*" recovered zero. Not to be discouraged, we changed the year of search to All Years to Present. This expanded search recovered ten articles for "agricult*" and six articles for "farm*", with the

majority overlapping, and four published in the 1970s. The *Journal of Applied Psychology* was equivalently bare.

Much has changed in agriculture since the landmark paper, *The Psychology of Farming: A Review of Twenty-Five Years of Research* by Richards (1973) but it seems as if psychology has not kept pace with agriculture during the past four decades. Of course, we admit that the literature search presented here is limited; however, that the premium scientific outlet for vocational psychology has so few papers devoted to agriculture gives credence to the criticism that psychology abandoned the agricultural field, metaphorically speaking (McIlveen 2015). In the *Encyclopedia of Psychology and Behavioral Science*, the entry for “Agricultural Psychology” begins: “In contrast to other social sciences that have developed specialised subdisciplines and/or application interests in agriculture, psychology historically has not been known for its concern with rural issues” (Shanteau 2001). The author suggests that psychology can be useful to agriculture but presumably had little research evidence to cite at that time that could be used to explicate a convincing point to counter the beginning of his entry.

The volume of agricultural research in vocational psychology contrasts to other applications of psychological science to understand farmers’:

- Decision-making about business diversification (Hansson et al. 2012).
- Conservation behaviours (Beedell and Rehman 2000; Greiner and Gregg 2011; Greiner et al. 2009; Lokhorst et al. 2011; Maybery et al. 2005).
- Identity (Burton and Wilson 2006).
- Safety practices (Cole 2002), their productivity (Roy 2009; Wuepper and Sauer 2016).
- Empowerment against corrupt markets (Milani Marin and Russo 2016).

Among this literature, the utility of the theory of planned behaviour (TPB; Ajzen 1985; Ajzen 1991) for research into the cognitive and behavioural dimensions of agriculture is evident (e.g., Beedell and Rehman 2000; Hansson et al. 2012; Lokhorst et al. 2011) and promoted as an appropriate behavioural theory (Burton 2004). Evidently, other branches of psychological science are making contributions to agriculture and agribusiness, but vocational psychology is hardly visible.

Although TPB is relevant to vocational behaviour (Kanfer et al. 2017), its utilisation in the literature of vocational psychology is relatively limited compared to the social cognitive career theory (SCCT; Lent 2013; Lent and Brown 2013; Lent et al. 1994). Extensive conceptual and empirical research demonstrates SCCT’s utility for important career development phenomena, such as interests (Lent et al. 1994), persistence toward achieving career goals (Brown et al. 2008), work performance (Brown et al. 2011), work-related wellbeing and satisfaction (Lent and Brown 2006, 2008), life satisfaction (Lent et al. 2005), and the important role of contextual factors in career (Lent and Brown 2006; Lent et al. 2000). Thus, we turn to the SCCT as a scientific framework to guide VPA research.

A Social Cognitive Perspective of Careers in Agriculture

SCCT (Lent 2013; Lent and Brown 2013; Lent et al. 1994) is predominant in the vocational psychology and career development literature of the past decade. SCCT proposes a process model which has as its core four key social-cognitive constructs: (a) self-efficacy, (b) outcome expectations, (c) occupational interests, and (d) goals (and goal-directed activity). These constructs inter-relate and are influenced by individual traits and contextual factors leading to a range of career-related behaviours and outcomes (e.g., exploration of occupational information, career decision-making, work satisfaction).

It may seem ironic to take a social cognitive perspective that emphasises personal agency in an industry that has profited from slave and bonded labour, and which in some parts of the world still does. Nonetheless, the SCCT emphasises the potentiating or limiting impact of contextual influences on psychological processes (e.g., environment, economy). Indeed, modern agriculture has moved through the industrial revolution, the green revolution, and now moves into the data and technology revolution, and corresponding working conditions have improved towards achieving decent work status. As nations have become more prosperous, and consumers demand more transparency, the pressure for businesses to provide good working conditions for people employed throughout the agricultural food and fibre production and supply chain make it possible now to conceive, theorise, and ask the question, beyond money and survival, what motivates people to direct their agentic behaviour towards the pursuit of careers in agriculture?

Drawing from earlier SCCT models, we theorise a Social Cognitive Model of Agricultural Career Interest Development via feedback loop that includes the sources of self-efficacy: observation, persuasion, experience, and affective arousal (OPEA). This model depicted in Fig. 21.1 proposes a series of direct and indirect paths between (a) social, economic, and environmental affordances, (b) employability traits, (c) self-efficacy, (d) outcome expectations, (e) interests, and (f) exploration. The model illustrates the feedback loop which occurs when these constructs influence the presence of the four sources of self-efficacy and how these in turn

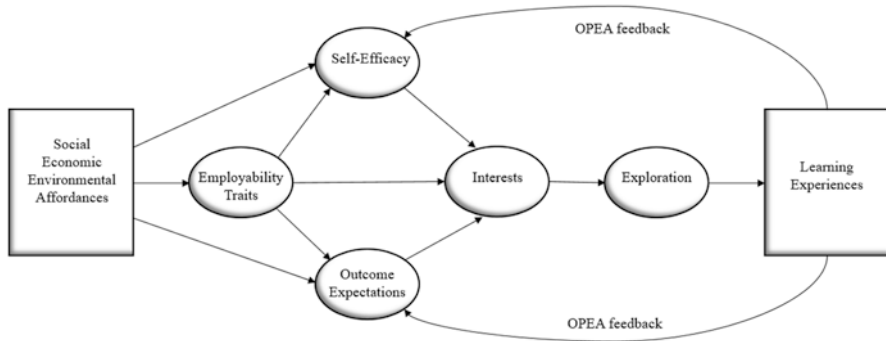


Fig. 21.1 A social cognitive model of agricultural career interest development via OPEA feedback loop. *O* observation, *P* persuasion, *E* experience, *A* affective arousal

magnify or inhibit an individual's self-efficacy and outcome expectations, reinforcing or weakening agricultural career outcomes.

Social, Economic, and Environmental Affordances

Social, economic, and environmental affordances present a range of supports or barriers that impact an individual's interest in agricultural work and the pursuit of a rewarding career in this industry. Socially, many of the world's metropolitan dwellers have rather outdated ideas of the nature of farm work and it is a profession that is not given much status within many developed nations. Also, people from farming communities, based on their experiencing or witnessing an industry that can be plagued by struggles, such as drought, may encourage their children away from pursuit of an agricultural career and negatively impact their self-efficacy and outcome expectations for agricultural work. Conversely, communities in rural areas are typified by a close and supportive culture that once experienced may contribute to expectations of a desirable lifestyle attainable by pursuit of agricultural work. The team work environment and presence of social support in agriculture can bring positive career influences. Economically, the job opportunities that would attract and retain workers to rural farming communities may not be available. When these jobs are available, the prevailing narrative that the opportunity of a better career, better money, and a better life exists within the cities sees a regular exodus of people furthering the rural-metropolitan divide. However, the influence of STEM professions within agriculture has meant improved sustainability and productivity of farming operations adding to the economic stability of the industry and quality job prospects for people. Finally, perhaps the most significant external impact on pursuit of careers in agriculture is environmental influences. Climate, soil, water availability and weather events largely determine the possibilities for success and failure of agricultural industries and act as barriers or supports in farming. Workers with high self-efficacy and positive belief in achieving expected outcomes can have the results of their labour thwarted by Mother Nature. However, the uncertainty associated with this influence can often be viewed as an ongoing unpredictable challenge, which continually motivates people within agriculture to dedicate effort in any areas they can exert some control. Environmental influences frame the stage on which agricultural careers play out, and in this way influence the task self-efficacy and outcome expectations of agricultural workers.

Employability Traits

The SCCT posits dispositional traits as factor within its process models (e.g., work performance; Brown et al. 2011). Similarly, we suggest that dispositional traits, labelled as "employability traits" in Fig. 21.1, may influence self-efficacy, outcome

expectations, and interests that relate to agricultural careers. There is a preponderance of evidence for conscientiousness is an adaptive trait for the workforce (Judge et al. 2002; Judge and Ilies 2002). In addition to conscientiousness, we suggest that other traits may motivate the pursuit of agricultural work (e.g., openness to experience, proactive personality, grit, and optimism). An individual who possesses these psychological strengths interacts with the farming environment in a way that elicits encouragement from more experienced colleagues. This is important for any profession within agriculture but is essential for on-farm positions which do not require formal qualifications and are learnt on the job. In this way, employability traits influence self-efficacy as those better able to garner support learn quickly and develop the confidence to embrace autonomous roles within the farming business. These traits are the personal resources that influence the level of outcome success a person expects to achieve and help a person approach rather than be overwhelmed by the challenges associated with agricultural work.

Farming is a risky business with attendant vicissitudes such as weather, market prices, and labour supply. Rain, too little or too much, can ruin a crop. Market expectations of a bumper yield in a season will drive down the price of a crop. Fruit will rot on the vine if there are insufficient workers to pick for harvest within tight time parameters. It is the optimistic person who year after year bears up against the angst associated with the likelihood of failure (Nes and Segerstrom 2006). Furthermore, evidence that optimism may be enhanced by psychological interventions (Malouff and Schutte 2017) encourages the prospect of developing interventions to enhance agricultural workers' resilience to contextual factors that imbue their industry with inherent risks.

Self-Efficacy

Agricultural work encompasses a wide range of job positions and even similar job positions can vary in terms of work responsibilities and tasks required to be competently performed. New farming approaches, new technology, and the push to make productivity gains worldwide makes agriculture an industry of continuous learning. Believing that one possesses the ability to learn and master work tasks is an essential component to ensure agricultural workers apply sustained effort in their job performance. In farming roles where little supervision and a large amount of autonomy is normal practice, self-efficacy prevents feeling overwhelmed or anxious when faced with the tasks that need to be performed in an environment where success is influenced by many factors outside of the worker's control, including the presence of optimal weather conditions. Self-efficacy acts as a necessary antecedent to outcome expectations and interest development in that an absence of self-efficacy leads to disengagement or refocusing of interests elsewhere to protect individual from perceived inevitable failure at work.

Outcome Expectations

The influence of outcome expectations as a driving force in the SCCT model occurs when potential outcomes offered by engaging in agricultural work are personally desirable and individuals identify with the values that inform the farm's team and business goals. These values that underpin farming operations business decisions can be related to a number of goals including economic, lifestyle or conservation goals (Maybery et al. 2005). As technological advances remove the need to complete menial and laborious tasks on farms, work conditions improve, becoming safer, and higher skilled positions bring with them better remuneration. The expectation that work is decent and a good living can be earned when working in agriculture is essential. Consideration of the potential lifestyle that comes with agricultural work may be a concern for those unfamiliar with rural areas. Social isolation and a lack of services impact some people's pursuit of a good life, while for others the open space of the outdoors, lack of congestion, and small-town communities are idyllic. The pursuit of work in the agriculture offers individuals the opportunity to be a part of feeding and clothing the world and, quite importantly, to work in a way that sustains natural resources for future generations. This connection to the outcome of meaningful work and an expectation that this can be attained may be a key driver for people committing to work in agriculture.

Interests

In our model of agricultural interests, we pose relations extending from employability traits, which are essentially individual differences constructs that include dispositional traits, directly to interests and via self-efficacy and outcome expectations. The individual differences perspective on vocational interests is exemplified in the theoretical and technical works of Holland and his RIASEC hexagonal model (Holland 1997). Recent research affirms the predictive validity of interests (Rottinghaus et al. 2007) and their relations with dispositional traits (Larson et al. 2002). The nexus of traits, interests, and self-efficacy is demonstrated in research that reveals self-efficacy's direct and mediational effects on interests (Nauta 2004; Rottinghaus et al. 2003; Rottinghaus et al. 2002). Nonetheless, evidence of recursive relations prohibits an assumption of a straightforward pathway from personality to interests via self-efficacy, and directly from the two predictors to interests (Armstrong and Vogel 2009). Thus, we urge scholars to eschew simplistic empirical models of causation that include a direct chain of effects between traits, efficacy, interests, and outcomes (e.g., career decisions).

Exploration

Exploration can be conceptualised as part of crucial developmental stage (Super 1980, 1990) and, according to the SCCT, as cognitive and behavioural activities that involve the collection, collation, and categorisation of career information. With

respect to agricultural careers, career exploration includes learning about agricultural occupations via sources of information (e.g., online, industry literature), engaging in work experience or professional placements on farms, and doing agricultural work as part of a gap year. There are outstanding educational programs that provide for exploration. In Australia, for example, agricultural studies may be taken as a high school subject, there are national agencies that support agricultural studies in schools, (e.g., Primary Industries Education Foundation Australia), and there are formal qualifications offered by universities and technical colleges.

OPEA Feedback Loop

To use a farming aphorism, the vexing, “What came first, the chicken or the egg?”, problem, we argue that an individual’s self-efficacy will be positively influenced by positive inputs. The four sources of self-efficacy are: (a) observation, (b) persuasion, (c) experience, and (d) affect. The sources of self-efficacy are experienced in contexts of career exploration and these experiences inform ongoing self-efficacy and beliefs around expected outcomes for people. It is through this feedback loop that career interests and career exploration contribute to adoption of agricultural careers. Notwithstanding the value and effectiveness of current educational resources, we contend that their uptake by potential students is inhibited because, to use another farming aphorism, “you can lead a horse to water but you can’t make it drink”. We suggest that insufficient emphasis is given to constructs upstream in the model (e.g., traits, efficacy, expectations, contextual affordances). The mere presence of resources may be necessary for career exploration but it is not sufficient in itself to raise interest. Thus, we include the OPEA feedback loop in our model as means to highlight the dynamic relations among all the constructs in the model. As per the problems of the horse and the water, and the chicken and the egg, we urge a flexible perspective on the relations among the constructs and the sources of efficacy given in the SCCT. What may be a mediator in one context may be a moderator in another.

Research and Development Agenda

SCCT is an ideal theoretical framework to organise research that addresses the factors that attract and retain individuals in agriculture. Indeed, a corpus of conceptual and empirical research that attests SCCT’s utility in several domains of research that are relevant to the VPA, such student career decision-making and academic performance (e.g., Brown et al. 2008; Lent et al. 2008), work performance (e.g., Brown et al. 2011), unemployment and reemployment (e.g., Thompson et al. 2016), and specific STEM occupations (e.g., Fouad et al. 2016; Singh et al. 2013). To advance SCCT’s empirical status and to articulate the VPA, the following research objectives are posed:

- Test the transferability and cross-cultural utility of the SCCT in non-Western languages and cultures, particularly in nations that are heavily reliant on agriculture for population health and wealth.
- Construct self-efficacy measures that are specific to particular work and industry sectors (e.g., horticulture, broad-acre cropping) yet sufficiently inclusive of behaviours that cover a range of common agricultural competencies.
- Advocate, develop, and evaluate education and training interventions that utilise social cognitive concepts and pedagogy (e.g., mentoring, role modelling, zone of proximal development) to attract and retain individuals in agriculture, ranging from school and college-based programs through to work-site, field-based programs.
- Discern the effects of contextual factors on key predictors (e.g., self-efficacy and outcome expectations) and outcomes (e.g., interests, work engagement), particularly those contextual factors that are environmental and seasonal (e.g., drought, harvest) and valent at local levels of cultural behaviour (e.g., regional differences in agricultural practices).
- Audit current international surveys conducted by large organisations concerned with economic development and sustainability, such as the Food and Agriculture Organization (FAO) or Organization for Economic Cooperation and Development (OECD), to identify potential gaps within the surveys' measures apropos social cognitive predictors of agricultural productivity and scope the potential for inclusion of these variables in these surveys.

Ethical Conundrums

The axiology of the Vocational Psychology of Agriculture—Farming Food and Fibre reflects the humanism of the Psychology of Working (Blustein 2006, 2013) which posits decent work as a resource to fulfil human needs for survival, power, social connection, and self-determination. This humanistic perspective invites notions of liberty and social justice. The VPA-FFF is about using scientific knowledge and technology of vocational psychology for social and economic ends; therefore the VPA-FFF is intrinsically politicised. Accordingly, the VPA-FFF's research and development agenda should be subject to philosophical, ethical scrutiny.

From the perspective of Foucault's (1980) nexus of knowledge/power, the VPA's calculus is simple. The ends: a stronger agricultural labour force capable of production levels necessary to meet global demands for food and fibre. The means: a corpus of evidence expressed by discourse that deliberately influences public policy, education and training, and professional practices to build a stronger agricultural labour force. These ends and means are ostensibly humanistic; however, the attendant conundrum of knowledge/power is adjudging whose ends and means are served by the VPA-FFF. Perhaps a solution to that problem is a matter of who stakes a claim on the evidence and technology produced by the VPA-FFF.

Conclusion

We believe that the Vocational Psychology of Agriculture—Farming Food and Fibre has much to offer agriculture across the value-chain. Here we offer just one conceptual solution with empirical and pragmatic potential. The SCCT model of agricultural interests is conceptual tool to describe relations among constructs, offer predictive hypotheses, and, on the evidence thereby gleaned, inform the design, delivery, and evaluation of educational resources that aim to attract talent into agriculture. Only further research and development, and evaluation of career interventions can test the theoretical and pragmatic utility of the SCCT model of agricultural interests. Vocational psychology’s treasury of knowledge and technology has more than the SCCT.

We believe that vocational psychology can and should make a difference to agriculture and thereby make a difference to eliminating hunger and poverty, and concomitantly improving health and wellbeing. There are few greater reasons to make use of an applied psychology than to solve pressing problems in the world. *Fiat Panis.*

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Part III
Educational and Vocational Guidance
in a Social Context

Chapter 22

Globalisation: Implications for Careers and Career Guidance



Michelle Hood and Peter A. Creed

Abstract Increasing globalisation presents both opportunities and challenges for the individual, and career practitioners must remain alert to these developments and their impact on careers. In this chapter we provide an overview of the important forces affecting careers in a globalised economy. For so-called global careerists, this new boundaryless world increases opportunities. However, for most, global labour mobility, outsourcing, technological advances, and automation have fuelled fears about job insecurity and wages growth, with unskilled and less well educated workers feeling most at risk of job displacement and unemployment. While the evidence reviewed suggests that there will be job growth rather than job loss, many current occupations will disappear, displacing workers; yet, other jobs will emerge. Jobs will increasingly require “twenty-first century” skills, such as creativity, adaptability, digital competence, and problem solving, which many workers currently lack. In addition, workers will face more job and career changes across their lifespan, meaning that access to lifelong learning and career guidance will be increasingly important for retraining and redeployment. A move away from career practitioners trying to fit clients to existing jobs and toward assisting them to develop adaptable twenty-first century skills will be critical to successful career guidance in a global world.

Keywords Globalisation · Global careers · Twenty-first century skills · Automation, expatriates

An increasingly globalised and technologically advanced world presents twenty-first century challenges for both workers and career guidance practitioners. In this chapter, we discuss some of the driving forces in globalisation and the challenges and opportunities they present. As we note, there are both pros and cons to these changes. Greater globalisation has enabled unprecedented career mobility, which for some “global careerists” has enabled the pursuit of quite boundaryless and

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immensely satisfying careers, but for others has produced challenges in career self-management and adaptation to increased multinational corporatisation and labour market changes. We also highlight the significant career-related issues associated with increased global migration of humanitarian and economic refugees and the vital need these at-risk groups have for culturally appropriate and accessible career guidance. It is critical that career guidance practitioners keep up with the economic and political factors driving globalisation, and counter movements toward localisation or nationalisation that are emerging.

In general, increased global labour mobility has fuelled widespread fears around job and wage security. Technological advances, especially increased automation, have added to these fears. While acknowledging that job displacement will be a reality for millions of workers across the globe, we also provide evidence that these twenty-first century changes are actually fuelling growth in jobs, wages, and productivity, albeit in different occupations to those of the twentieth century. The challenges for career guidance practitioners are how to guide the young to prepare for the jobs of the future that we cannot yet even imagine, and how to guide older workers to engage in lifelong learning to maintain or enhance their employability in the face occupational change and, possibly, displacement. One of the big challenges will be breaking career guidance services free from the confines of educational institutions that generally only serve the young, and from human resource departments that are focused increasingly only on managing “talent”. In the twenty-first century, the provision of career guidance that is accessible to all across the lifespan will become increasingly necessary.

Globalisation

The world has become an increasingly integrated global whole (Heywood 2014), and this has important implications for careers and career guidance. As Van Esbroeck (2008) noted, the path to globalisation has been a long one, beginning in the “first” Industrial Revolution of the 1800s. Consequently, the current era of globalisation is referred to often as the Fourth Industrial Revolution (Schwab 2017). Globalisation refers to the integration of economies due to goods, services, and capital, including workers and companies, moving freely across national borders (International Monetary Fund 2008). The driving forces in globalisation have been policies such as free trade and labour agreements, technological progress, and the increasing dominance of English as the lingua franca (Friedman 2006). Increased participation in higher education and specialised training is also associated with higher global career mobility (Solimano 2014). Education has itself become increasingly globalised or internationalised in order to meet demand for graduates with international credentials who are fluent in English and ready to join the increasing ranks of “global careerists” (Altbach and Knight 2007).

There are two main perspectives on globalisation (see Held et al. 2003). The first is the transformational perspective, which focuses on the transformations to social,

cultural, and political institutions and practices, including those directly relevant to work and careers, that result from globalisation. Often this is seen as enriching, and, thus, positive (Doiz et al. 2013). The other is the homogenisation perspective, which focuses on the largely Western homogenisation that has resulted from globalisation. This aspect of globalisation is viewed more negatively, and is often associated more closely with the rise of English as the lingua franca (Doiz et al. 2013), but also with dominant Western organisational (e.g., human resource management; Wang et al. 2017) and other cultural practices supplanting local practices and customs. For example, Davoine and Ravasi (2013) found that North American management models had infiltrated and eroded the management models used in top European companies, although they did note that the degree of erosion was slow relative to the strength of internationalisation in these countries.

While the increased capacity for individuals to move more readily across national borders in pursuit of their life and career goals is largely a positive outcome of globalisation, there are associated fears regarding the adverse impact of this on local labour markets and career opportunities (OECD 2015). Another increasing trend in the global movement of people is that of economic and humanitarian refugees, who are an at-risk group for whom accessible and culturally appropriate career guidance is critical to assist with successful integration into their new country (Bimrose and McNair 2011). Technological advances that have contributed to globalisation have also brought about both positive changes and widespread fear that automation will result in mass job loss (Price Waterhouse Cooper, PwC 2016). It is imperative that career guidance professionals understand these and other changes to work and career paths that have resulted from globalisation and address this in their work with clients (Coutinho et al. 2008).

Global Labour Market Trends

The increased integration of emerging economies that have large labour surpluses (e.g., India and China) into the global labour market has heightened fears that globalisation will lead to job losses and/or reduced wages. This is especially the case for “white-collar” work, such as information technology and business services, which was previously undertaken within or exported from Western countries, and is increasingly sourced off-shore (OECD 2005). The rapid increase in tertiary educated graduates with fluent English language skills from emerging economies (e.g., India, China, and Turkey) is contributing to global labour migration (Bashir 2007), and fuelling fears of local (Western) job losses. In general, economically poorer countries with strong cultural and social ties to the international community, but relatively few graduate employment prospects, are the largest exporters of “talent” (Ryan et al. 2015).

However, fears of job losses with globalisation are not supported by evidence. At the same time that globalisation has been increasing, OECD countries have experienced increased productivity and real wages growth, alongside no significant

changes to unemployment rates (OECD 2005). For example, in Australia, unemployment rates have actually fallen from 9.3% in the 1990s to around 5.6% in the 2010s (Foundation for Young Australians, FYA 2015).

Nevertheless, despite falling overall unemployment rates, there are pockets of increased unemployment. The percentage of unskilled men not participating in the Australian labour market has increased from the 1990s to the 2010s (FYA 2015). Unskilled workers are most at risk for unemployment in the technologically driven global economy. Martin (2017) noted that the latest OECD Survey of Adult Skills revealed that many working-age adults lack skills for problem solving in technology-rich environments, and are, thus, under threat. Low educated workers, along with women, who tend to have slightly poorer technological literacy skills, are particularly at risk of unemployment, as the main job losses will occur in unskilled areas such as assembly lines, manufacturing, and transportation.

At the same time, as demand for unskilled work is diminishing in many areas of the global economy, demand for certain “twenty-first century” skills appears to be outstripping supply. For example, in Australian job advertisements, demand for digital skills increased 212% and for critical thinking increased 158% from 2012 to 2015 (FYA 2015). The Chartered Accountants Australia and New Zealand (2017) reported adaptability and agility as increasingly important skills, but ones that are lacking in potential staff. PwC (2016) found that the number of CEOs reporting that they cannot find new staff that have the appropriate skills they require, especially creativity and innovation, increased from 55% to 77% between 2011 and 2016. This shortage of workers with appropriate skills and mindsets for the twenty-first century global economy is evident across the workforce, including at leadership levels (Osland et al. 2006).

The Challenges from Technological Progress

There has been increased investment in technologies and resources due to ongoing corporate globalisation in both developed and emerging economies (Haslberger and Brewster 2009). Rifkin (1995) famously predicted that technological changes such as Artificial Intelligence (AI), digitalisation, Big Data, robotics, and automation would effectively spell the end of work. Consistent with Rifkin’s (1995) prediction that this new “machine-age” would lead to the end of work for humans, it has been reported that over 70% of people fear losing their jobs to automation (Pew Research Centre 2017; PwC 2016). While Rifkin’s prediction turned out to be inaccurate and workers fears to be misplaced (Arntz et al. 2016), there has certainly been, and will continue to be, substantial digital disruption in the labour market, with certain occupations likely to disappear and new ones to emerge. Just what the specific jobs of the future will be, or where they will emerge, are largely unknown, making career guidance for today’s youth challenging. For example, in a recent interview with the Australian Broadcasting Corporation (2017), the Head of Research at Google said

that he tells his children "...wherever they will be working in 20 years probably doesn't exist now...No sense training for it today".

Advances in machine learning, mobile robotics, data mining, and computational statistics have implications for replacing a range of jobs including driving (as driverless vehicles become more commonplace) and skilled craft work (as robots are built with increasingly precise visual perception and manual dexterity; Bakhshi et al. 2015). Frey and Osborne (2013) estimated that 47% of US occupations, and a similar percentage across a wide range of OECD countries (see also Bowles 2014), were at risk due to technological advances in computerisation or automation. Bakhshi et al. (2015) argued that creative occupations (e.g., musician, architect) were more resistant to losses due to automation (e.g., 3.5% risk of artistic activities being automatised) compared to service (67% risk for food and beverage services) and some manufacturing industries (100% risk).

However, using a task-based, rather than an occupation-based, approach, Arntz et al. (2016) came to a far more positive conclusion, estimating that only around 9% of jobs were at risk, although they noted that this differed across countries from 6% in Korea to 12% in Austria. The OECD Digital Economy Outlook (2015) was also positive, estimating that technology was driving economic growth in OECD countries, accounting for between 15% and 52% of all investments from 2008 to 2013, and 22% of the jobs created in 2013.

Rather than contributing to mass unemployment, employment rates have been rising with technological progress (Autor 2015) and are anticipated to continue to rise (McKinsey and Company 2017). PwC's (2016) survey of CEOs indicated that 52% planned to increase staff in the following 12-month period, continuing an upward trend from 2010 when only 37% reported such intentions. Indeed, estimates are that the American workforce will be almost 30 million short of the required number of new workers by 2031 (Osterman et al. 2002). However, as noted already, these positive effects on the labour market are not uniform. Technological advances and the associated globalisation of the workforce mean that some jobs will disappear and the skills needed to succeed in the workplace will change (PwC 2016). McKinsey and Company (2017) estimated that 15% of workers (400 million people) across the globe will be displaced from their current jobs by 2030 and will require retraining and reemployment in other jobs or occupations. Low qualified workers will feel the brunt of the negative impact of technological advance, as the automatised nature of their jobs is more likely than that of skilled workers (Arntz et al. 2016). Therefore, Arntz et al. (2016) argued that the challenge for an increasingly digitised and globalised world is to manage this rising inequality effectively and to ensure that displaced low-skilled workers can be retrained adequately. To meet these challenges, career education and management also need to shift from an emphasis on preparation for individual jobs and development of task-specific skills to development of in-demand twenty-first century, transversal, and/or transferable skills, such as creativity, adaptability, innovation, digital or technological competence, decision-making and problem-solving, and independent learning (World Bank 2003).

The Changing Role of Education in Global Careers

One of the big changes from globalisation and the disappearance of a job-for-life in one organisation is the movement from education and learning predominantly being the domain of childhood through to early adulthood to an emphasis on “lifelong learning”. The lifetime number of jobs a person will hold is increasing, with various estimates placing this in excess of 11 (e.g., Bureau of Labour Statistics 2017). Combined with an aging population, the traditional three-stage (education, career, retirement) lifespan will be replaced by a multi-stage process of ongoing education and re-education interwoven with different career stages that are likely to persist until people are in their 70s and 80s (Gratton and Scott 2016). Lifelong learning and ongoing retraining will be essential to maintaining employability in an era in which (a) jobs are changing due to technological advances, (b) there is increased labour market pressure from a more mobile workforce, and (c) organisations are less likely to make long-term commitments to individuals (Watts 2005).

In addition to pressures for increased access to lifelong learning and vocational retraining, higher education is becoming increasingly internationalised in response to globalisation (Altbach and Knight 2007). Waibel et al. (2017) referred to this as transnational educational mobility (TEM). This ranges from ad hoc international educational experiences, for example, due to parents undertaking a short international career posting, to participation in more formal international education schemes, such as the European Community Action Scheme for the Mobility of University Students (ERASMUS). International rankings of higher education institutions and programs and cross-national accreditation of qualifications (Nelson 2011; Wedlin 2011) have facilitated international acceptance of tertiary qualifications, thereby facilitating global career mobility (Iredale 2001). Gaining international educational experience and internationally recognised qualifications has been reported to enhance human capital (e.g., language proficiency, intercultural skills) and twenty-first century employability skills such as openness, curiosity, problem-solving, and tolerance (Farrugia and Sanger 2017; Favell et al. 2007).

However, in their systematic literature review, Waibel et al. (2017) found distinct contrasts between studies that used subjective self-reports and those that used more objective measures of the effects of international study experience on a range of career variables. For example, while most participants who had studied abroad believed that it assisted in their transition into work (i.e., subjective self-reports), 75% of the studies that included control groups found no between-group differences in time to first job post-study and employment status up to 5 years post-graduation (i.e., on objective measures). Some studies found longer study-to-work transition times for those who had studied internationally, and only two studies found shorter transition times. However, Waibel et al. did find moderate positive effects of international study experiences on income levels 5 years post-graduation. While they found only a few pre-post objective studies of the effects of international study on career maturity, results indicated that the change in maturity was no greater than would occur due to natural maturation over the same time.

While there is limited evidence for the benefits of international tertiary education experiences on general career outcomes, both international education experiences and internationalisation of the curriculum have been associated with greater global career mobility (e.g., Ryan et al. 2013; Wiers-Jenssen 2008). This seems particularly important at elite global career levels. For MBA graduates, there is a higher likelihood of a global career and a more elite global career when they have qualifications from English language, high status, especially American or European institutions, and have more international experiences during their degree (Davoine and Ravasi 2013; Silvanto et al. 2017).

The Global Career

While Flavell et al. (2007) argued that labour is less mobile than other production factors due to international relations, national policies, and border controls, the global economy has facilitated a rise in labour and career mobility, giving rise to terms such as “the age of migration” (Castles and Miller 2009, p. 2) and “workers without frontiers” (Stalker 2000). Cappellen and Janssens (2010) defined global careers as careers “directed at participating in the global economy” (p. 687). Thus, they range from a succession of short- or long-term international assignments in one or multiple organisations to internationally oriented jobs undertaken in the home country (e.g., in corporate headquarters). They also range from being company assigned expatriates (CAE; international assignments completely under company control) to self-initiated expatriates (SIE; international assignments completely under individual control; McNulty and Vance 2017). McNulty and Vance (2017) argued that global careerists move dynamically back and forth along this spectrum from CAE to SIE, either within a company or across companies.

Despite crossing national boundaries for work, CAEs are aligned more with a traditional career orientation (Wilensky 1960). The company determines and manages the individual’s international assignments, while ideally, although not always, facilitating a match between the individual preferences and organisational needs, and the individual is likely to return to and remain in the home company after the international assignment (Tharenou 2013). Accepting international assignments then contributes to the individual’s career development and advancement within the company (Jokinen et al. 2008). On the other hand, SIEs exemplify Arthur and Rousseau’s (1996) notion of the boundaryless career. They are likely to undergo not only multiple organisational changes but also occupational changes as they pursue assignments (Parker and Inkson 1999). They prioritise autonomy and flexibility over the security and organisational career management afforded by remaining in the one organisation. Thus, they truly personify Stalker’s (2000) “workers without frontiers”.

Regardless of whether these global careerists are CAEs or SIEs, successfully enacting a global career requires a combination of individual skills and expertise (including cultural and linguistic competence; Carr et al. 2005), along with the

absence of limiting life constraints (such as family considerations; Inkson 2006). Factors such as turbulence in international economic or organisational environments and these assignments being fixed term rather than continuing positions mean that mobility is high and that future planning and effective networking are critical to successful management of a global career (Suutari et al. 2012). However, the Brookfield Global Relocation Survey (2016) found that while 61% of respondents reported that their organisation referred to the importance of an international assignment to their career, only 10% aligned the assignments with good candidate and career management processes. SIEs are even less likely than CAEs to have access to organisational career support and management and, thus, are reliant on extra-organisational career support. However, Arthur et al. (2005) found that only 15% of studies in their review of career success examined extra-organisational support, suggesting that this could be an area of need for SIEs.

Motivations and Limitations of a Global Career

Financial (e.g., higher salaries) and career experience (e.g., rewarding work) are both key motivators of pursuing a global career (Baruch and Forstenlechner 2017; Solimano 2008), although the relative importance of each might differ across professions and locations. Engineers were reportedly more likely to be motivated by economic factors, whereas academics or scientists were more likely to be motivated by the career, especially research, opportunities (Mahroum 2000). Regardless of profession, remuneration was the main motivator for expatriates working in the Gulf States such as Qatar and United Arab Emirates (Baruch and Forstenlechner 2017). However, generally long-term global careerists appear to be driven primarily by motivational, intangible, and non-financial rewards, with financial rewards an implicit but secondary factor (Suutari et al. 2012). Dickmann and Cerdin (2014) identified individual (personality, career advancement, and desire for challenge or adventure), organisational (financial impact, meritocracy, and global exposure), and macro-contextual factors to be relevant to global career decision-making. They further delineated the macro-contextual considerations into political-legal (e.g., open, stable, and efficient government; level of racial and other discrimination), economic (e.g., level of unemployment, cost of living), socio-cultural (e.g., education quality, multi-culturalism, safety, affordance of good work-life balance, convenience of access and exit), technological, ecological (e.g., clean air), and natural (e.g., conducive time zone, climate, language).

Certainly, international experience does provide a range of intangible rewards in addition to a higher remuneration than might be achieved at home. It develops a range of aspects of human capital (Altman and Baruch 2012) via the enhanced need and opportunities to develop a broader range of social networks than would be likely if one remained in the home country or home organisation. Other than

social capital, career capital is developed, via enhanced knowledge, skills, expertise, career confidence, and motivation (e.g., Inkson and Thorn 2010; Suutari and Mäkelä 2007).

However, expatriation is not without challenges, for both the individual and the organisation. For short-term expatriates or workers who undertake a single international assignment, especially those who are doing so at managerial levels, return to the home country presents challenges that include a return to less autonomy, responsibility, and discretion (Linehan and O'Sullivan 2003). It can also mean a loss of career direction (Dickmann and Harris 2005). All of this is associated with greater rates of turnover (Stahl and Cerdin 2004) as workers seek a better fit for the post-expatriation self (Lazarova and Cerdin 2007). However, increasingly, globalisation has meant longer stints of expatriation, including moving from one international company or position to another (Cerdin and Le Pargneux 2010; Stahl and Cerdin 2004), thereby circumventing some of these repatriation challenges.

There are also factors that limit the likelihood of being offered, accepting, or seeking international postings. Younger workers often lack the experience and seniority required (Selmer and Luring 2011), whereas family or other personal factors often hamper the ability of more mature workers, especially women, to move to another country for work, resulting in more male than female (Doherty 2013), and more single than partnered female expatriates (Doherty and Thorn 2014). Organisations have added to this by historically preferring male expatriate workers (Tharenou 2009). Thus, global careers are not entirely boundaryless (Yao et al. 2014), but also exemplify King, Burke, and Pemberton's (2005) notion of a bounded career in which experience, skills, identity, and external constraints affect what is possible. Political factors such as uprisings, civil unrest, and warfare affect the perceived safety and desirability of a location, and, thus, its appeal to expatriates (Yao et al. 2014). Cultural factors also contribute to boundedness. For example, Yao et al. (2014) found that cultural obligations like filial piety, collectivism, and cultural identity placed boundaries on the global career aspirations of young Chinese workers. However, Vance and McNulty (2014) noted an increase in diversity of expatriates in the past two decades, with increasing numbers of female (single and partnered, with and without children), non-Western, and young expatriates (assigned for developmental purposes as opposed to the executive postings of older more senior expatriates).

To encourage expatriation, Tornikoski (2011) argued that organisations need to consider everything that an individual worker is likely to value or find motivating rather than just thinking in terms of financial rewards. This acknowledges the protean career orientation (Creed et al. 2011; Hall 1996) of global careerists, in which the individual's values and preferences are key career drivers. Given the limiting factors that impose boundaries on mobility, multinational organisations also need to ensure good talent management and matching processes when assigning international postings (Brookfield Global Relocation Survey 2016).

Career Challenges of Population Mobility

Other than expatriates who move across the globe for work, changing migration and refugee patterns have also contributed to globalisation of the workforce, and present substantial challenges for career guidance. While economic variations temporarily effect the level of migration, the OECD (2008) predicted that population mobility would rise in the long term. Certain countries have experienced a greater influx of migrants and refugees than have others. The expansion of the EU in 2004 resulted in an influx of over one million Central and Eastern European migrants to the UK when legal rights to live and work there were granted (Pollard et al. 2008; note subsequent changes due to Brexit are discussed later). In Europe, Italy has some of the highest non-EU population, with a 264% increase in the number of foreigners between 1992 and 2002. By 2015, foreigners made up 8.2% of the Italian population (cf. European Union average of 6.9%; European Commission 2016), placing it 11th globally for the number of migrants and refugees (Piazza et al. 2017). Many of these are unaccompanied minors for whom both integration into appropriate training and connection to job placement services are critical (Piazza et al. 2017). However, the Migrant Integration Policy Index (MIPEX 2015) estimated that only 5% of non-EU citizens of working age in Italy had access to education and training (cf. 17% for other European countries). They leave school at younger ages and are more likely to gain unskilled work, with less stability and greater risk for unemployment or underemployment (Cesareo 2016). In Australia, Combs (2016) noted that the three biggest issues preventing young refugees from getting work were not having an Australian company on their CV, an Australian referee, and a professional network in Australia. Even for immigrants with high education levels, there is difficulty getting their qualifications recognised, so they also are likely to end up in low skilled work that is well below their qualification levels (MIPEX 2015). The European Centre for the Development of Vocational Training (CEDEFOP 2011) concluded that integration of immigrants into the labour market and provision of appropriate guidance services remains in need of policy attention and concrete action.

Bimrose and McNair (2011) argued that career guidance and counselling services can help mediate between the migrant and the unfamiliar world of work in the new country. However, they also noted that the provision of appropriate career guidance services for migrants and refugees, many of whom come from collectivist cultures, might entail a rethink of traditional career guidance and counselling theories that were developed in Western capitalist and individualistic contexts. Multicultural counsellors who are able to provide guidance and counselling in culturally sensitive ways are required (Piazza et al. 2017). Bimrose and McNair pointed to Ibrahim's (1985) model of value orientations as potentially useful for career counsellors to establish first the client's worldview. In particular, they noted that career interventions for collectivist cultures need to encompass the broader concerns of the person's family and community rather than just their own individual preferences. Van Esbroeck (2008) noted the difficulties that collectivist cultures

faced due to heavy reliance on informal career support and guidance from the family and community group that was likely inadequate in a rapidly changing global world. Both Bimrose and McNair and Van Esbroeck further argued that current career guidance that derives from theories and interventions developed in a Western cultural context might not readily translate for use in non-Western cultures. These theories emphasise personal development, rational choice, and self-actualisation, which are relevant in the case of expatriate “talent” who have the luxury of selecting jobs that best suit their interests, abilities, and qualifications, but fail in the face of migrants whose primary emphasis is getting any job in order to survive financially.

The life design approach of Savickas et al. (2009) was developed deliberately to address the globalisation of career counselling, thereby mitigating these difficulties. Its focus on the construction of personal life and career narratives provides a better model for career guidance with migrant and refugee populations. This social constructionist approach recognises the influence of social interaction, which is particularly pertinent for working with those from collectivist cultures. Bimrose and McNair (2011) reported the successful deployment of a career guidance intervention based on this life design approach for a small number of unaccompanied minors who migrated from North African countries to Italy. Integrating their past experiences with present context formed the basis for helping them design their future.

Localisation: A Counter-Response to Globalisation

While there have been increases in global career mobility, political changes and an over-reliance on expatriate workers have led some countries to attempt to reduce the employment of non-nationals and to regulate a greater reliance on local labour (Baruch and Forstenlechner 2017). The Gulf States are a good example. They have had a heavy reliance on expatriate workers at both the elite professional and low skilled levels. For example, in Qatar, 94% of the economically active population are SIEs (Rodriguez and Scurry 2014). “Qatarisation” and similar localisation policies such as “Saudisation”, “Omanisation”, and “Emiratisation” aim to develop a more highly educated local workforce with the necessary skills to replace expatriates permanently with local workers (Rodriguez and Scurry 2014). For SIEs, the implications of these policies are that organisations do not provide career management or support such as ongoing training and opportunities for advancement, thereby, reducing their capacity to develop career capital (Rodriguez and Scurry 2014). Social networks and capital are also difficult to develop in these circumstance due to cultural and prestige barriers that preference interactions within groups of nationals or within groups of expatriates, but not between. Long-term relationships and establishment of foundations in these countries are not viable, as the expatriates are not permitted to remain in the country once their work visas expire (Rodriguez and Scurry 2014). Thus, localisation policies are likely to mean that expatriation of the future will not yield the typically found benefits to career and social capital (cf. Altman and Baruch 2012; Inkson and Thorn 2010; Suutari and Mäkelä 2007).

The Brexit plebiscite in which the UK voted to exit the European Union represents another counter-move against globalisation that carries with it implications for labour mobility and current expatriates (UK expatriates working in the EU and EU nationals working in the UK). Currently, the implications of Brexit for EU-UK migration, and associated agreements, are being finalised, and the effects on the labour market differ depending on the particular agreements (Morris 2017). Morris (2017) noted that UK unemployment is currently at a historical low-point and will be insufficient to meet the labour needs in a number of areas, especially in the low skilled labour market. He argued that a carefully considered migration policy will be required to enable British industries to function and to prevent them moving abroad. These worries are shared among CEOs. PwC's (2017) Global Survey found that 41% of CEOs agreed that balancing the competing demands of an open global market along increasing trends toward more closed nationalist markets was difficult. Hooley (2017) noted that there were also potentially adverse Brexit implications for career guidance in the UK, due to separation from EU career guidance policies that emphasise lifelong learning and global education mobility programs like ERASMUS. However, he also noted optimistically that there had been statements suggesting the new government would adhere to policies and strategies to ensure access to quality career guidance, regardless of age or background.

Implications for Career Guidance

It is vital that career guidance professionals understand the changes that globalisation and associated technological advancements have made to the world of work and careers (Coutinho et al. 2008). In the increasingly boundaryless and protean world of the twenty-first century, career education and guidance services are tasked with addressing what citizens of any given nation state must do to succeed in a global economy, including equipping them with the attitudes, knowledge, and transferable skills needed to self-manage their careers and broader lives successfully (Bengtsson 2011; Irving 2013). The move from traditional job-for-life careers to estimates of 11 or more lifetime jobs (Bureau of Labor Statistics 2017) means that access to life-long learning and career guidance is critical to empower individuals to design, manage, and sustain their careers throughout these changes. As Bengtsson (2011) argued, we need new strategies and policies for career guidance that bridge education and work and move away from a reliance on delivery in schools or employment services to enable access for all people throughout their life. Trade unions have been suggested as one potential organisation that could prompt and provide lifelong career guidance and development (CEDEFOP 2008; Watts 2005). While the provision of Lifelong Guidance has gained considerable momentum in Europe (e.g., Council of the European Union 2008), career guidance services

outside of educational settings in other countries, such as Australia, are limited (OECD 2002). Adoption of the Blueprint Framework for career management skills in Australia, USA, and Canada (Hooley et al. 2013) goes some way toward addressing this, although there remains a heavy reliance on service delivery via educational institutions, and limited options for out-of-school youth or adults. In addition, Watts (2005) noted concerns regarding the delivery of career guidance services in schools in many of these countries. He noted that efforts in Australian schools to strengthen vocational elements in the curriculum appeared to be at the expense of career education and guidance, which was likely to be counterproductive to promoting career management skills. He also noted that in a number of countries, schools have counsellors for whom career counselling and guidance is only one of their roles, and that often it is sidelined by the need to deal with students' social and emotional issues.

Irving (2013) also argued that there was an increased need to tailor or develop career guidance approaches and policies for the national context, rather than simply borrowing frameworks from other countries. Although there has been increased homogenisation due to globalisation (Held et al. 2003), cultural and national diversity warrants tailored approaches, especially given differences in migration patterns, reliance on expatriate labour, and localisation or nationalistic policies. Certainly, tailored and culturally appropriate career guidance services are critical for integrating refugees and other migrants into the new society by enabling them to find sustainable and satisfying work (Bimrose and McNair 2011; Piazza et al. 2017). For example, as Van Esbroeck (2008) argued, when working with clients from collectivist cultures, it is imperative that formal guidance services encompass the client's informal guidance circle as well (i.e., their family and significant social circles). This informal support system is often most influential in guiding the person, especially younger clients, but their guidance on its own is most likely to be inadequate to meet the challenges of the twenty-first century global economy.

It is vital that those who provide formal career guidance and support are up to date with shifts in policies and the labour market, and understand the implications of these for careers now and into the future. Focusing career guidance solely on today's jobs and skills is ill advised given the rapidity of technological change and the unknown nature of tomorrow's jobs (World Bank 2003). Rather, the focus needs to shift to the development of so-called twenty-first century skills, which are "meta-skills such as problem solving, non-linear thinking, creativity, or communication skills" (Kickmeier-Rust and Dietrich 2012, p. 680) relevant to working and living in a technology-driven globalised world (Binkley et al. 2012). Development of these skills is vital. Not only do they contribute to the ability to make the most of available learning opportunities (OECD 2016), employers are increasingly seeking, but not generally finding, them in job applicants (Deloitte Access Economics 2017). While we might not know what the jobs will be even in 5 years' time, we are confident that they will rely heavily on these meta-skills, and career guidance practitioners need to be emphasising those skills with their clients today.

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Chapter 23

International Handbook of Career Guidance



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Abstract This chapter introduces key features of *The living systems theory of vocational behavior and development* (LSVD). Its particular focus is on describing and explaining the functioning of *behaviour episodes*, which are the fundamental, person-in-context units of analysis that can be used in individual, person-centered career counselling and research. Behaviour episodes are the building blocks that individuals use to construct their career pathways. They are context-specific, goal-directed, biological and behavioural patterns that unfold over time until clients achieve, change, postpone or fail to achieve their goals. Career counsellors must appreciate the fact that each client is a unique person who functions as a complex organisation of parts and processes through which they seek to achieve their goals. Thus, understanding their clients' individual histories of behaviour episodes, their current circumstances and the goals they seek to achieve, is essential. When using this framework, counselling represents a dynamic process that is in contrast to prominent models in vocational psychology that focus on presumably stable and enduring features such as vocational interests and personality. Importantly, it also empowers counsellors to engage in a more holistic guidance process that is specifically tailored to each client.

Keywords Living systems · Behaviour episode · Person-in-context · Person-centered · Career development

In the first edition of the *International handbook of career guidance* we reviewed theories that incorporated developmental-contextual perspectives on career across the lifespan (Vondracek and Porfeli 2008), including Ford's (1987) theory of living systems. In this chapter we introduce an extension and application of Ford's general

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model as *A living systems theory of vocational behavior and development* (LSVD; Vondracek et al. 2014). We begin with a brief historical review of theoretical issues and developments that have led to the development of the new theory. This is followed by a description of key features of the theory with special focus on the *behaviour episode*, the theory's fundamental person-in-context unit of analysis. The second half of the chapter is devoted to explaining how behaviour episodes and other key features of the LSVD can be employed in career guidance and counselling.

Brief History of Relevant Theory Development

Within the study of career development it is widely accepted that behaviour is the result of interactions between person and contexts (Chartrand et al. 1995). Nevertheless, “the premise that vocational development reflects both person and context is so established that much of the time it is in fact not empirically studied” (Shanahan and Porfeli 2002, p. 404). When it is studied, the context is generally used as an independent variable, with behaviour serving as the dependent variable. Although this approach has merit when one is interested in questions bearing on populations or groups as is the case, for example, when one is interested in the rate of unemployment in a particular location (e.g., Ferreira et al. 2015) or when one wants to study the impact of educational attainment on future income (e.g., U.S. Department of Labor 2017), findings from this type of research are not particularly helpful when one tries to draw conclusions from them for any particular individual (e.g., Molenaar and Campbell 2009).

There are lessons to be drawn from this that are important for researchers, but even more so for career guidance counsellors. While it is undoubtedly true that group counselling and various educational strategies can be useful, career guidance and development must, ultimately and by necessity, be focused on the person who is living in unique contexts, environments and times. All people deal with unique family circumstances, educational histories, physical capabilities as well as limitations, and other idiosyncratic characteristics and conditions. The ultimate focus for intervention and research in career guidance must be the individual-in-context as an integrated whole, because it is impossible to know and assess everything that makes any given person and their circumstances unique. While this is widely accepted, it is not very easily applied in counselling, and conducting research within this frame is complicated in an environment in which the most popular and widely used methods seek to make inferences about individuals from the study of populations, a practice that has been shown to be faulty (Molenaar 2004).

We have recognised for some time that individual behaviour and development are shaped not only by what is unique inside the person but also what is unique outside of the person. Osipow (1987) recognised this and declared person-environment fit to be the preeminent guiding imperative in vocational psychology. Attempts to take account of both have usually, however, resulted in conceptualising and assessing selected person aspects and selected contextual

features as separate sets of interrelated constructs, and then using a great variety of research designs and analytical methods to show how they are related to each other. Nevertheless, vocational psychology theories have increasingly recognised that people's career development and changes in career pathways are intricately connected to the multiple contexts with which people interact in everyday life, as well as to the broader environment (e.g., Lent et al. 1994, 2002; Patton and McMahon 1999, 2006; Savickas 2011, 2013; Young and Valach 2008; Young et al. 1996, 2002).

Although the labels *context* and *environment* are often used interchangeably, Vondracek and his colleagues have suggested that *environment* includes "all the kinds of both proximal and distal phenomena surrounding a particular reference point", while "*context* refers only to that part of one's current environment with which one can directly interact" (Vondracek et al. 2014, p. 39). The distinction between context (e.g., my co-worker, my tools, my workplace) and environment (e.g., the weather, the local airport, tax policy) is important because, while neither can *cause* behaviour, environments usually only indirectly influence behaviour.

Donald Super's life-span, life-space approach to career development (Super 1980, 1990; Super et al. 1996) represented an early effort to demonstrate how various contexts and environments influence the course of career development across the life-span. Super had some success in reflecting the strength of his commitment to a lifespan approach while giving equal attention to his conviction that an individual's career development could be understood only when placed within the life-space context. He introduced his "Archway to Career Development" to reflect his appreciation of development and context through an array of roles across time (Super 1990, 1994) and he insisted that "person-situation interaction" was central to his overall approach (Super 1981, p. 36). He was unable, however, to actually create a means to systematically integrate person and context in research or in practice within a context that favoured approaches and methods focused on studying groups or populations.

Another approach that aimed to represent both the person and the multiple contexts within which people operate was introduced as the developmental-contextual meta-theory framework for studying and understanding career development (Vondracek et al. 1983, 1986). The basic intent of presenting the developmental-contextual framework was straight-forward: we hoped to precipitate the abandonment of simplistic notions of career development in favour of a developmental-contextual and life-span perspective, and to stimulate greater interest in vocational and career development research in the broad community of social and behavioural scientists. Dynamic interaction of the developing individual with various contexts was presented as the paradigm that could, for the first time, adequately account for the complexity of occupational careers, their antecedents, their unfolding, and their consequences. In a general sense, the model challenged variable-centric theories, questions, and methods and encouraged theories, questions and methods for understanding dynamic and multidimensional interactions of person and context across time. At the time, this was conceptualised as merely a

transitional framework, certain to be refined, if not replaced, by ever more sophisticated conceptualisations of human functioning in context.

Despite its acknowledged shortcomings, the merit of the developmental contextual meta-theory was underscored by reports of a welcome trend toward “research on career development in a developmental-contextual fashion” (cf. Silbereisen 2002, p. 310). As Silbereisen (2002, p. 318) noted, some studies conducted from this perspective were exceptional with regard to “revealing the interactive fabric of contextual and personal conditions,” while others were more focused on the “proximal cognitive and motivational processes.” The challenge that remained was to design studies that could unify the macro-perspectives of human development commonly addressed in life course sociology and the individual and process-focused perspective of life-span developmental psychology (Shanahan and Porfeli 2002; Vondracek and Porfeli 2002). A number of promising theoretical advances have occurred in the past three decades that address one of the major shortcomings of the developmental-contextual meta-theory by presenting a process model of change and development.

The impetus for these advances was created by D.H. Ford’s seminal scholarly book *Humans as self-constructing living systems: A developmental perspective on behavior and personality*, published in 1987. Ford noted that the purpose of this work was “to develop a conceptual framework for understanding individual humans as complex, functional entities” and to “synthesise existing scientific and clinical information into a coherent representation of a person as a functional unit” (Ford 1987, p. ix). Ford called his conceptual framework the Living Systems Framework (LSF). It represents a comprehensive model of human functioning, based on an exhaustive, multidisciplinary review of theory and research on human behaviour and personality. Ford (1987, p. 145) laid the groundwork for his core unit of analysis, the *behaviour episode*, by describing the scope of its domain, while warning that if any part of it were to be ignored a person’s behaviour could not be fully understood:

Behavior patterns differ because people vary in what they want, how they decide to go about producing the desired consequences, what they actually do, the ways they anticipate and evaluate their progress, the emotions that are aroused in relationship to the activity, the conditions of their biological functioning, the kinds of environments in which they interact, and the attributes of those environments upon which they selectively focus their transactions.

The LSF includes an operational model that addresses the content, organisation, and dynamics of the developing person. The model casts human functioning into four classes: (a) transactional functions that serve to exchange information and energy with the environment, (b) arousal functions that fuel behaviour and cognition, (c) governing functions that are responsible for behavioural and cognitive coordination and control, and (d) biological functions that sustain, promote, or inhibit behavioural and cognitive functioning. This operation model (see Fig. 23.1), therefore, addresses all of the core functions of a person.

The person-in-context is represented as the focal unit of interest in this operational model. Person-in-context is represented as an open system that is capable of

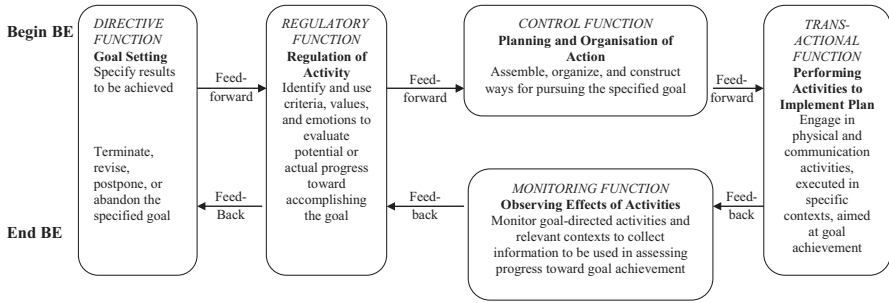


Fig. 23.1 Operational model of a person in context—a behaviour episode. (Reprinted with permission from Vondracek and Ford 2019)

elaborating itself by growing and becoming more complex and specialised, because it can obtain resources from the environment and alter the content and organisation of its environment. Moreover, the person-in-context unit is described as a self-regulating, open system. Self-regulation is achieved via positive and negative *feed-back* processes, which are complemented by *feedforward* processes that are forward-looking, future-oriented, and proactive. Feedforward processes capture the goal-directed and future-oriented behaviours that characterise humans and that enable the LSF to describe key processes of human development. This is an important point because LSF presumes that a person’s actions today can be influenced by reflections on the past, assessments of the present, and beliefs about the future; hence, past, present, and projected future opportunities and constraints within and outside the person influence current thoughts and actions. The operational model of the LSF includes one additional key feature, namely the recognition that the person-in-context is not only self-organising but also self-constructing. These self-constructing processes represent both biological and psychological/behavioural self-constructing capabilities. Viewing the person-in-context as the proper unit of analysis leads to the conclusion that the very existence, functioning, and development of individuals require continual exchanges with context.

Despite the appeal of a meta-theoretical framework that eschews oversimplification through the creation of the LSF, the sheer volume of Ford’s book (almost 800 pages) served as a deterrent to accessing and employing its contents by those operating within well-accepted and familiar paradigms that were productive and considered to be adequate. Although Ford’s work represents a major effort to offer an integrative and inclusive paradigm, for potential users the learning curve is steep both from conceptual and methodological perspectives.

Nevertheless, Ford’s seminal volume has spawned three notable efforts to apply and extend the LSF to general human development in *Developmental systems theory* (DST – Ford and Lerner 1992), to human motivation in *Motivational systems theory* (MST – M Ford 1992), and to vocational behaviour and development in *A living systems theory of vocational behavior and development* (LSVD – Vondracek et al. 2014). The first two of these advances were discussed in some detail in our

contribution to the first edition of the *International handbook of career guidance* (Vondracek and Porfeli 2008). The remainder of the present chapter is guided by the goal to enhance the accessibility of LSVD and to encourage its use within theory, research and practice devoted to career guidance and counselling.

The Living Systems Theory of Vocational Behaviour and Development (LSVD)

The LSVD was formulated to explain and illustrate the processes by which individuals construct their vocational pathways, work experiences, and career patterns through episodes of interaction with opportunities (affordances) they recognise within their contexts, and how counselling and career guidance can facilitate these processes. The resulting integrative theory represents the person as a dynamic, self-constructing entity—in short, as a living system. Presenting the entire theory here is impossible because of the limited space available. For a more in-depth presentation, which includes extensive case studies, see Vondracek et al. (2014).

We specifically focus, in this presentation, on describing and explaining the functioning of behaviour episodes, which are the fundamental, person-in-context units that represent the building blocks individuals utilise to construct their career pathways. Analysis of a person's history of behaviour episodes, especially those that are rewarding and satisfying, and of their current episodes provides the means by which career guidance counsellors can assist them in understanding and constructing satisfying career pathways. Behaviour episodes are context specific, goal-directed (or agentic), biological and behavioural patterns that unfold over time until clients achieve, change, postpone or fail to achieve their goals.

Figure 23.1 is a summary presentation of a typical behaviour episode, and it illustrates a fundamental theoretical requirement, namely the *Principle of Unitary Functioning*. It states that a person always functions as an integrated unit, which is selectively organised to behave in specific ways for specific purposes, in specific contexts (Ford 1987). Goals direct and represent the impetus for every behaviour episode, and a person may pursue several goals simultaneously. A person's daily activities can be conceptualised and analysed as patterns of behaviour episodes. The goals driving any particular behaviour episode may be short-term (e.g., reading a magazine article about community service), medium-term (e.g., volunteering at a community service event), or long-term (e.g., becoming a Foreign Service officer). To achieve long-term goals like becoming a Foreign Service officer, behaviour episodes may be hierarchically organised into behaviour episodes in which the goals directing them progressively advance them toward the long-term goal (e.g., graduating from high school, getting accepted into a college or university, choosing an appropriate major, graduating with distinction, passing the entrance requirements for the Foreign Service). Thus, all of these behaviour episodes are part of a pathway

guided by a long-term goal. In this sense, career development can be considered a grand and long-term series of behaviour episodes or events in one's career story.

In the LSVD, goals direct all behaviour episodes and thus it is critically important to understand how goals are chosen. Deciding to pursue a certain goal, however, just represents part of the dynamic, integrated behavioural system that we call a behaviour episode (see Fig. 23.1). Choosing a goal to pursue activates *feedforward* (e.g., future oriented) signals that direct, plan, organise, and execute behaviours selectively in each specific behaviour episode so as to create the specific outcomes that are desired in that specific context (Vondracek et al. 2014). At the same time, cognitive, kinetic, and affective *feedback* occurs throughout the behaviour episode to regulate behavioural activity and monitor the effects of actions taken toward accomplishment of the goal directing the behaviour episode. Ultimately, such feedback is used to revise, postpone, or abandon the goal—unless it has been achieved. Although each behaviour episode is unique and takes place in a specific context, it may also be influenced by the broader environment (e.g., economic conditions, family circumstances and traditions, interpersonal relations, institutions and organizations, socio-cultural norms, technological advances, etc.).

Within a behaviour episode, people function as a coherent whole person rather than a collection of separated constructs (e.g., interests, values, and goals). LSVD embraces this concept of unitary functioning to explain how people develop, learn and adapt across the flow of behaviour episodes. Behaviour episodes form the basis of all experience and learning, but no two behaviour episodes are exactly alike. When a person is faced with a new situation and starts a new behaviour episode, they do not have to start from scratch to create a “how to do it” pattern. Instead, they activate a generalised “how to do it” pattern (schema) that has been effective in similar situations in the past and use it as a starting point for the new situation. Schemas are models or general plans that are constructed from experiences and can be applied to many different situations. Being a flexible behavioural pattern, a *behaviour episode schema* will not perfectly suit all aspects of the current situation and will likely require modification and elaboration to advance the goal in the current behaviour episode. Behaviour episode schemas are an adaptation to the complexity of life. They offer a starting point to engage so that clients do not need to reinvent the wheel in every moment. Behaviour episode schemas are akin to the general design and function of a wheel that can be flexibly applied to the opportunities and challenges of the moment. Thus, behaviour episode schemas are constantly modified and elaborated by the dynamics of behaviour episodes, underscoring how they differ from presumably stable constructs such as traits or habits.

Every behaviour episode is to some extent a new construction (based on past episodes) that is not completed, nor entirely defined, until the behaviour episode ends (Vondracek et al. 2014). In this sense, each behaviour episode offers a new occasion to deploy, modify, and refine existing behaviour episode schemas. For example, one may have developed a general behaviour episode schema for seeking a new job based on many different behaviour episodes that involved this goal. Those behaviour episodes could have involved reviewing job postings and thinking about which of these might be suitable. Such behaviour episodes would be identified as

thinking behaviour episodes. In addition, one may have watched a video of a job interview or a comedy illustrating the classic errors in a job interview. Those behaviours would be characterised as *observational behaviour episodes*. Finally, one may have actually applied for a job by filling out an application and going to a job interview. Those behaviour episodes would be called *instrumental behaviour episodes*. All of these different behaviour episodes may contribute to and continuously modify a behaviour episode schema dealing with applying for a job. Behaviour episode schemas that are based on a combination of these three types of behaviour episodes tend to be most powerful because they engage the full range of experiences people are likely to encounter when they seek employment.

Applying the LSVD in Career Guidance and Counselling

Joseph Jastrow, an early pioneer of scientific methods in psychology, wrote in his introduction to Hollingworth's (1916) *Vocational psychology: Its problems and methods* that "the road from theory to practice, if it is to be well built and enduring, must be laid on careful foundation." Up to this point we have endeavoured to lay such a foundation by focusing on the core elements of Ford's (1987) living systems framework, namely the behaviour episode and the behaviour episode schemas that are acquired as a consequence of experiencing many behaviour episodes in varying kinds of contexts in the course of every day. As counsellors prepare to assist clients who have come to them for any number of career-related issues, they must appreciate the fact that each and every one of them is a unique person who functions as a complex, integrated organisation of parts and processes through which they seek to produce the consequences they desire in a manner that is consistent with their capabilities and the affordances they perceive in their contexts. Moreover, counsellors will understand that their clients come to them not only with unique problems and expectations, but also with unique histories of behaviour episodes and behaviour episode schemas. Therefore, gaining an understanding of their clients' histories, their current circumstances, and the results they seek to achieve as a result of counselling is essential for achieving positive counselling outcomes.

To be successful in conducting career guidance and counselling from a living systems perspective, counsellors must always approach their interventions as a *collaborative effort* involving two people who bring different assets to the counselling situation: The counsellor brings knowledge, skills, and experiences, as well as a deep appreciation of the uniqueness of each client, while the client brings a history of behaviour episodes and behaviour episode schemas, knowledge of family and life circumstances, and questions and concerns regarding actual and potential career pathways. Collaboration is likely to produce positive results only when the client feels comfortable and completely at ease and the counsellor is ready, willing and able to support the client. To ensure such a comfortable collaborative relationship, it is important to understand that the client has most likely experienced similar situations such as visiting the family physician, meeting with a school principal, or

any other authority figure. Those behaviour episodes created a behaviour episode schema representing “meeting with authority figures.” Although the counsellor will not immediately know the nature of this behaviour episode schema, s/he will know the kind of relationship s/he desires to facilitate a productive counselling relationship with a client. Thus, the first task of the counsellor will be to facilitate a conversation with the client about past experiences with people in positions similar to the counsellor to reveal and potentially modify the client’s behaviour episode schema so as to establish an effective collaborative relationship. This can often be accomplished in a fairly straight-forward manner by the counsellor explaining the importance of collaboration, relating the current interaction to other past successful interactions the client shares, minimising the perception of status differences, and attending to any anxiety or apprehension on part of the client in a soothing and reassuring manner. Once that is accomplished, the counsellor and client can work to articulate and synchronise the goals of their counselling partnership, because unless they agree on what they expect to achieve in the counselling situation, no positive results can be expected.

Recall that the importance of goals resides in the fact that they direct all behaviour episodes. Thus, when the counsellor and client agree on what they want to accomplish in the course of their counselling relationship, that goal (or goals) then directs what occurs in the more or less long-term behaviour episode that is represented by the descriptive label “counselling and guidance sessions.” For example, does the client wish to explore the feasibility of changing to an entirely new career pathway or is s/he most interested in getting help to pursue a pathway s/he has already chosen? Is the client undecided regarding several options s/he has been considering or is s/he inclined to be indecisive in general? Having clearly defined goals is very important because vague goals can serve as a barrier to success in the counselling relationship. Having vague career goals is often a leading presenting problem in career counselling and guidance, and if the client’s goals remain vague, plans to achieve them are likely ill-fated. Goal definition, clarification, and revision are thus essential processes in counselling and guidance conducted in accordance with the LSVD. The processes of goal setting and goal clarification should be an early meaningful activity in the counselling situation. In most cases, this will involve an initial exploration of the client’s immediate and broader career goals, as well as their interrelationships with other goals in such areas as interpersonal relationships, educational attainment, financial expectations, job market, hobbies, and others.

Counsellors should be aware that some types of behaviour are performed more or less automatically; hence, some clients may not have an explicit awareness of the goals that guide some of their behaviour episodes. In the course of daily life, people are often on auto-pilot relative to their goals. This is adaptive given the ongoing complexity and demands of daily life. Nevertheless, in the course of goal clarification, counsellors can often help clients to become aware of goals that directed their behaviour without them being consciously aware of it. Thus, “helping people bring their goals into consciousness by putting them into some perceptible form (e.g., words or images) is the primary function of goal assessments and a major task of counsellors . . .” (M Ford 1992, p. 119).

Because of the central importance of goals in the LSVD, it should be noted that the LSVD imposes no restrictions, nor does it make specific recommendations regarding the methods used to set or clarify goals in the counselling situation. Counsellors can avail themselves of an extensive literature on goal-setting processes and career decision making that may help to inform them on how to proceed most effectively (e.g., M Ford and Nichols 1991, 1992; Gati 2013). For example, Gati's *Prescreening, In-Depth Exploration, and Choice (PIC)* sequential elimination model is an excellent strategy which, depending on the client's circumstances, can be employed by career guidance counsellors to assist clients in the goal-setting task (Gati and Asher 2001; Gati and Tal 2008). The PIC was designed to be a prescriptive model that offers a systematic framework for career decision-making. The pre-screening of alternatives strategy employs a sequential elimination process that involves broad exploration that leads to a narrowing of potential choices. This strategy then potentiates a process of in-depth exploration of promising alternatives, followed by choosing the most suitable option. While the process of goal-setting is important, simply thinking about accomplishing a goal is not sufficient. To function as a directive influence in a behaviour episode, the person must commit to the work needed to accomplish goals. M. Ford (1992, p. 206) calls this the "*Principle of Goal Activation*."

Previously, we referred to the fact that individuals may pursue multiple goals simultaneously, and that, in such cases, goals may be organised hierarchically. Specifically, this means that (in behaviour episodes directed by long-term goals) "organized sequences or embedded subgoals . . . serve as markers of progress toward the overall goal (or goals) of the episode" (M Ford 1992, p. 97). For example, if a client aspires to become a physician, there are many subgoals that need to be attained before the ultimate goal directing this long-term behaviour episode is reached. M Ford (1992) cited extensive evidence which indicated that when achievement of a long-range goal directing a behaviour episode requires the investment of significant time and effort, motivation is most likely to be maintained if one focuses on the achievement of more readily attainable subgoals that are more proximal and that are less intimidating than the ultimate goal. That makes sense, because in this manner clients can experience small victories when they reach subgoals, enhancing their confidence about their ability to reach their longer-term goals. Counsellors can play an important role in helping clients to "keep their eyes on the ball" by encouraging them to focus on executing behaviour episodes that are directed by subgoals, while reminding them of their connection to the long-term goal.

According to the LSVD, all development (including career development) proceeds through the modification of existing patterns and pathways. Consequently, when clients are novices in the world of work and occupations (e.g., high-school or college graduates) early counselling activities may be devoted to exploring satisfying and rewarding behavioural patterns or behaviour episode schemas in the client's past, which could serve as potential starting points for their initial or new career pathways. It is not unusual for a client to choose an occupation that started as a hobby or pastime. The process usually involves behaviour episode schemas and behaviour episode activity patterns that become elaborated because they are accom-

panied by favourable outcomes and include positive thoughts, emotions, and feedback from others, which suggests a supportive context. Improved biological states often accompany such developments, and the fact that they may occur in a variety of different contexts opens up new possibilities and opportunities and affirms the confidence needed to pursue the activity as a career.

Because behaviour episodes represent the building blocks of career pathways and activity patterns, understanding how they function can play a major role in the counselling context. Counsellors effectively help their clients understand their behavioural patterns when they can identify thinking, observational, and instrumental behaviour episodes and explain how they contribute to the development of behaviour episode schemas. In the course of exploring clients' past activity patterns (or history of behaviour episode patterns), their commitment to associated goals tends to become increasingly apparent. Such exploration of patterns may also reveal their diligence in developing the skills necessary to accomplish the goals and the capacity to garner the support of their environment, often including important support from family, friends, and co-workers or peers. Moreover, clients' descriptions of past behaviour episodes are often accompanied by statements that reveal positive or negative thoughts and emotions (e.g., work valences; see Porfeli et al. (2012) regarding their experience. All of these clues contribute to understanding the level of clients' confidence in their ability to achieve goals as well as their level of confidence in the supportive nature of their contexts. M Ford (1992) has referred to these as *Capability Beliefs* and *Context Beliefs*, respectively, and he has proposed that, assuming clearly defined goals, the patterns of these beliefs, which he calls *Personal Agency Beliefs*, along with emotions, represent the most important components of motivation.

Counsellors can use this framework to help clients assess their motivation toward or away from an activity or objective (for an example see, Vondracek and Kawasaki 1995). It is not uncommon for clients to have positive, as well as negative (or avoidance) goals. Examples of avoidance goals are "I do not want to end up in a 'high pressure' job that consumes all of my time," or "I do not want a job that requires me to be around people all the time." Such goals are just as legitimate as positive (or achievement) goals, and counsellors should not neglect to help clients identify both types of goals. Motivation is a good predictor of whether the goal is eventually attained or avoided, regardless of whether the goal directing the behaviour episode is an achievement goal or an avoidance goal.

Importantly, however, M Ford (1992, p. 83) stressed that the goal(s) to be attained must be *Personal Goals*: "they represent the consequences to be achieved (or avoided), and they direct the other components of the person to try to produce those consequences (or prevent them from occurring)." When assessing a client's goals, it is important to ensure that the clients' stated goals are in actuality their *personal* goals, representing what they may be trying to achieve. For example, a college student may state that she wants to be an accountant, when in actuality that choice was made to please her parents who may want her to join the family accounting practice. In this case, the goal apparently guiding the long-term behaviour episode is "becoming an accountant," but, in actuality, the behaviour episode is directed by the actual

personal goal of “wanting to please my parents.” Understanding the actual goal will help to clarify the experience of behaviour episodes. This represents just one example of the difficulties inherent in efforts to discover the multiple goals that direct the behaviour of individuals over time and across different contexts.

Reviewing the typical behaviour episode shown in Fig. 23.1 makes it clear that establishing a collaborative relationship, explaining the role of behaviour episodes and behaviour episode schemas in human functioning in general and in career development in particular, and exploring, clarifying, and determining the goals to be pursued represent only the initial tasks in the career guidance and counselling behaviour episode. Once this has been accomplished, attention will be directed to “Planning and Organisation of Action,” described in Fig. 23.1 as the *Control Function* in the behaviour episode. This will typically involve reviewing various options for accomplishing aspects of the guiding goal of the behaviour episode. Criteria for judging action steps may include such items as the amount of time and effort required for implementation, the resources required, and the feasibility of success. Although the client must make the choice of an action plan, counsellors can be of significant help in identifying alternatives, anticipating possible barriers or other problems, and guiding clients to reach action plans that are satisfactory and that they feel capable of executing.

Implementing the action plan represents that portion of the behaviour episode that is described as being the *Transactional Function*. It involves the physical and communication activities that need to be executed in specific contexts to achieve the goal directing the episode. The implementation stage in the process of guidance and counselling often requires steady support and encouragement to ensure that the client persists in pursuing the agreed upon goal. Strategies that may be used by the counsellor could involve reinforcing or boosting self-efficacy (capability) beliefs concerning the implementation challenges that are frequently encountered, and ensuring a supportive context for these efforts, thereby boosting the client’s context beliefs.

Throughout the conduct of this complex, long-term behaviour episode (which consists of many more discreet behaviour episodes), feedforward and feedback processes ensure constant monitoring of the overall process: it addresses questions such as “what is my progress toward achieving the goal” and “has anything changed in my personal situation (e.g., health, financial condition, family situation) or context that requires revising my goal or action plan?” Eventually, depending on how the behaviour episode unfolds, the constant monitoring of progress will result in the behaviour episode being terminated because the goal has been achieved or because the goal has been abandoned. In some situations, the goal may be revised, leading to the development of a new behaviour episode directed by the revised goal, or the whole process may be postponed.

As is apparent at this point, the entire process of evaluation, assessment, and counselling according to the LSVD is focused on the unique, individual person-in-context. It represents a dynamic process that is in contrast to prominent models in vocational psychology and counselling, which focus on presumably stable and enduring patterns of parts such as vocational interests and personality. Thus, it is

common to largely ignore many important aspects of the person, the functional variability of behaviour patterns, and the diverse array of clients' contexts. "An individual's biological/genetic makeup, behavioural history, and contextual barriers and affordances represent an integral whole. When these components are considered in isolation, it is virtually impossible to comprehend their meaning and development" (Vondracek et al. 2014, p. 105). Because the LSVD focuses attention on the individual as a whole living system, functioning in complex contexts and environments, it empowers counsellors to engage in a more holistic counselling and guidance process that is specifically tailored to each client.

Person-Focused Research from the LSVD Perspective

Researchers may question how one can do research from a person-in-context perspective when "the most commonly used methods of the last quarter century for examining stability (e.g., panel and cross-lag models) and change (repeated measures analysis of variance, analysis of difference scores, analysis of residualized change) largely preclude this perspective," in part because they assume individuals to be "interchangeable units who, apart from random error, differ neither quantitatively nor qualitatively in behavioral course" (Sterba and Bauer 2010, p. 239). In fact, stability in the way humans function is best described as stability in patterns of intra-individual variability (e.g., stability in the range of behaviours a person typically engages in), often referred to as steady states, and these are typically influenced by person-specific contextual conditions. This differs from traditional approaches which typically assess stability via unchanging, discreet characteristics such as work values or vocational interests. "Human contexts serve as flexible boundaries for, defining features of, and products of human behavior, necessitating that human behavior and its contexts be assessed simultaneously" (Vondracek et al. 2014, p. 105). When that is done (as in behaviour episodes), it opens the door to exploring within-person consistencies across contexts by conducting multiple occasions of measurement within and across specified contexts.

Research in career development and guidance has been focused predominantly on studying variations in certain characteristics across individuals (i.e., inter-individual variation) without regard to how these characteristics are organised in relationship to other characteristics, or how they might be affected by different contexts. Molenaar (2004) has shown that results obtained via the study of inter-individual variation are not applicable to any individual members of groups or populations studied in this manner, and he has suggested that individuals should be studied in-depth from an intra-individual perspective before pooling the findings across other individuals. Ideally, researchers would first develop a sound representation of the variable(s) to be studied, and then assess them for any given person across time and situations in order to seek possible person-specific patterns.

One example of how this can be done is a study of work values using P-technique factor analysis (Schulenberg et al. 1988). In P-technique factor analysis the data are

gathered across many occasions of measurement per individual (before examining commonalities across individuals), while in the most commonly used R-technique factor analysis data are gathered across many individuals on one occasion (and then the findings are applied to individuals). Thus, an in-depth understanding of the individual (regarding the variable or variables under study) forms the basis for looking for commonalities across individuals. Another example of a study that used “*individuals-in-the-environment*” as the principal unit of analysis is Gustafson and Magnusson’s (1991) study of female life careers. In an ambitious longitudinal study, the researchers focused on “individuals’ *patterns* across certain person and environmental variables relevant to educational and occupational achievement” using cluster analysis (Gustafson and Magnusson 1991, p. 4). Although this study, published as a book, represents a unique, high quality piece of research that is meaningful for practitioners and researchers in career development and guidance, it has been virtually ignored by the field.

There are other methodological advances which make the study of person-in-context possible, and which are increasingly accessible, including time-series analysis, multivariate time-series analysis, dynamic factor analysis (Velicer and Molinaar 2013), as well as dynamic structural equation modeling (Asparouhov et al. 2018). Describing these in any detail is beyond the scope of this chapter. Finally, it is worth noting that many forms of qualitative research use person-in-context data. Case studies and case notes are excellent examples of primarily qualitative data (which can also often be converted to be at least in part quantitative). Such data can be used in mixed methods designs (e.g., Tashakkori et al. 2013). Clearly, the use of research designs which are capable of advancing the study of person-in-context, whether they use quantitative, qualitative, or mixed methods designs, “are likely to result in findings that are richer, more nuanced, and more useful for theorists, researchers, counsellors, and people moving along their career pathway” (Vondracek et al. 2014, p. 124).

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Chapter 24

Career Guidance and the Arab Mediterranean Countries: Epistemologies and Practices from the Global South



Ronald G. Sultana

Abstract This chapter draws on the fund of regional and international knowledge about career guidance that comparative research has generated in contexts that can be referred to as the ‘global South’. The focus here is specifically on the Middle East and North Africa, a region in which the author has carried out research, policy consultancy and practitioner training for the past two decades. The goal of the chapter is to challenge the universalising language that characterises career guidance theory and practice, arguing that serious attention needs to be given to ‘localisms’ and ‘particularisms’ so that responses that are sensitive to context can emerge. The chapter pulls together some of the key themes, issues and insights which, while speaking specifically to the Arab Mediterranean Countries, resonate with what we know about other contexts in the developing world, as well as in the economically depressed regions in the developed world.

Keywords Career guidance in the global south · Career guidance in the Arab states · Particularism vs universalism in theory building · Career guidance and western-centrism

This chapter draws on two comparative research projects on career education and guidance (CEG) in the Middle East and North Africa (MENA) region that were carried out within 10 years of each other, the first in 2006 and the second in 2016. The former study, which the author carried out together with Tony Watts, focused on ten Mediterranean countries and was commissioned by the European Training Foundation (ETF) as part of its MEDA-ETE (Education and Training for Employment) initiative focusing on the Mediterranean region. That study, implemented on behalf of the European Commission’s vocational education and training agency based in Turin and focusing on European Union (EU) partner countries, included eight Arab states and territories (Morocco, Algeria, Tunisia, Egypt, Palestine, Jordan, Syria and Lebanon), together with Israel and Turkey (Sultana and Watts 2007, 2008). The survey instrument used then had been designed and

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first deployed by an Organisation for Economic Cooperation and Development (OECD) team led by Richard Sweet and Tony Watts, in preparation for a review of career guidance policies in 14 member states (OECD 2004). A slightly modified version of the same survey was subsequently used by the World Bank to review CEG in seven middle-income countries (Watts and Fretwell 2004), and by the *Centre Européen pour le Développement de la Formation Professionnelle* (CEDEFOP), the Thessaloniki-based European Commission agency dedicated to vocational education and training in EU and the European Economic Area (EEA) countries (Sultana 2003, 2004).

In all, over 55 countries were involved in this series of linked studies, generating the most detailed comparable database on CEG that has been produced to date (Watts and Sultana 2004; Watts 2014). In each case, the survey was answered by specialists in the field in every participating country, in response to a comprehensive list of questions on the development of career guidance, together with the current state of policies, practice, and research in both the education and labour market sectors. Further studies extending this database have been carried out focusing on career guidance in European public employment services (Sultana and Watts 2006a, b), and by the ETF in a number of former Soviet countries that had become partners (but not members) of the EU (Zelloth 2009). In regard to the OECD initiative, as well as in some cases in the remaining studies, country visits supplemented the information obtained through the survey. In my case, for instance, the ETF project and subsequent spin-offs from that involved several visits to Egypt, Morocco, Jordan, Lebanon, the West Bank, as well as the Gaza Strip, where I led seminars and training workshops, participated in peer learning visits as a facilitator, carried out additional studies (*inter alia* Sultana 2011, 2014a), and supported policy development efforts as an advisor to ministries and/or international agencies such as UNESCO (United Nations Educational, Scientific and Cultural Organization) and the ILO (International Labour Organization).

A second study of CEG in the Mediterranean region was carried out by the present author throughout 2016 and into 2017, with the aim of building on the fund of knowledge generated by the earlier reviews. The comparative study, which led to the publication of a 26-chapter volume titled *Career Guidance and Livelihood Planning across the Mediterranean: Challenging Transitions in South Europe and the MENA Region* (Sultana 2017), features articles by 38 authors about 18 Mediterranean countries, including those of the Maghreb (Morocco, Algeria, Tunisia, and Libya) and the Mashrek (Egypt, Palestine, Jordan, Syria, and Lebanon), with an additional chapter on Saudi Arabia's efforts to promote career guidance in the kingdom.

Given the sheer range of themes and issues addressed by the two studies, it would be helpful to pull out those that, in my view, are the most consequential, and to examine the implications of at least some of these for policy and practice. The next sections tackle these two tasks, after first outlining the author's epistemological and political standpoints. The chapter concludes by inviting and encouraging further investment in developing regional perspectives on career guidance.

Epistemological and Political Standpoint

The two research projects mentioned above have addressed issues and questions on which others in the international career guidance research community have also reflected. In doing so, however, the MENA-focused projects have brought to bear fresh insights, attributing different priority and value to some issues over others, and introducing new considerations that can serve to enrich the field as well as debates within it. In particular, the approach that I have increasingly adopted in my reflections on career guidance in the global South is motivated by what I have elsewhere called a ‘thirst for social justice’ (Sultana 2014b, c), adopting a stance that places the attainment of human dignity well ahead of market and instrumental concerns that privilege economic over democratic imperatives and over personal flourishing.

This standpoint has entailed drawing on critical social science rather more than mainstream vocational psychology, with the former providing the theoretical tools needed in articulating what de Sousa Santos (2007) refers to as ‘epistemologies of the South’. This signals a readiness to provide a space and an opportunity for the South to speak, and to do so on its own terms, rather than to judge the developing world according to the yardstick of the North. It entails considering features that are often said to characterise the global South—such as ‘early’ school leaving; ‘low’ labour market participation rates by women; ‘bloated’ public sectors; ‘bureaucratic’ and ‘centralised’ environments that stymie entrepreneurship; strong ‘informal’ labour market sectors; welfare regimes dependent on extended family ties and support rather than state safety nets elements—as part of the globalising neo-liberal narrative, which takes it for granted that all these are deviations from the assumed and hardly ever problematised norm—the referent or ‘absent centre’ represented by the global North.

Such a standpoint also demands a readiness to reconsider taken-for-granted core concepts associated with career guidance, including, among others, mainstream notions of ‘career’ and of ‘choice’; the centrality of work; the assumption of internal locus of control and of self-directed autonomy in making occupational choices; the unarticulated expectation to delay gratification in view of long term career planning; the bearing of sole responsibility for life outcomes; and the separation of material from spiritual considerations of being. Examples of mainstream practices that have been ‘troubled’ by my exposure to realities in the global South include the individual career interview; the predominance of discursive strategies as the pathway to problem resolution; the maintenance of professional distance (regulated, in some instances, by a monetised relationship); the overemphasis on personal variables, such as interests and abilities, at the cost of considering environmental and contextual variables; and the articulation of solutions in terms of individual rather than collective action, often without reference to the spiritual dimension of life or the role of piety as a source of personal satisfaction at work.

The Global-South

By ‘global-South’ I am referencing social and epistemological dynamics, and not just geographical or economical ones. I am thus referring to

[a] areas in the world (the ‘majority world’) that have been subjected to colonial domination and exploitation and relegated to the ‘periphery’ in all sorts of ways, including in terms of the standing and legitimacy of the forms of knowledge they abide by, rendered epistemologically subordinate within the mainstream economy of knowledge.

By the term ‘global-South’ I am also referring to

[b] those social categories that have been variously named as ‘subaltern’ (Gramsci 1971) or, more recently, as ‘the multitude’ (Hardt and Negri 2004). These are those groups who suffer the consequences of what Iris Marion Young (2005) refers to as ‘the five faces of oppression’, namely exploitation, marginalisation, powerlessness, cultural imperialism, and violence.

Finally, when I use the term ‘global-South’ I am

[c] also emphasising the fact that the relations of authority, peripheralisation, exclusion and appropriation are not just cultural or economic, but intellectual as well; that is, research material collected from the colonies and the subaltern are often theorised by the privileged, whether these are based in the metropolises, or in the peripheries and semi-peripheries of this world.

Such ‘epistemological reflexivity’ serves to critically interrogate not only the positionality of researchers, but the very research questions we ask (Afiouni and Karam 2017). In developing such reflexivity, we take our cue from other colleagues’ efforts internationally, who, by investing in regional studies, are striving to articulate ways of ‘thinking’ and ‘doing’ career guidance differently. Here, the work of colleagues from South Asia (e.g. Arulmani 2011) and Latin America (e.g., Fonseca da Silva et al. 2016; Ribeiro et al. 2015) are important in that they draw on culturally grounded indigenous worldviews, liberation psychology, critical social theory, and social justice perspectives in their efforts to reconceptualise the field and to make it meaningful in a different regional context. The corpus of work on career guidance in the global South, therefore, represents what de Sousa Santos calls a ‘sociology of emergences’, that is efforts from below to build up grounded and context-sensitive and context-responsive knowledge “that generates an emancipatory way of being and acting” (2007b, p.10). The task of context-specific inquiry is thus to foreground “signs, clues, and latent tendencies that, however inchoate and fragmented, point to new constellations of meaning as regards both the understanding and the transformation of the world” (de Sousa Santos 2007, p.10).

Contexts Matter

The effort to re-shape a social practice that has embedded itself as an institution, and acquired its own traction, traditions, and legitimacy over the years, represents an immensely challenging endeavour. One just has to think of the countless efforts to reform schooling in so many different national contexts where, as the saying goes, *plus ça change, plus c'est la même chose*, raising suspicions among the cynical as to whether 'policy busyness' is more about 'political spectacle' (Edelman 1988) than anything else. Doubtless, the same can be said of career guidance where, despite the proliferation of theoretical approaches, and despite increasingly sophisticated accounts of career development, continuities are at least as prominent as changes, with little that is remarkably different happening at the interface between provider and user when compared to practices a century back, at least in terms of the guiding paradigm or 'language' of practice.

It is here that regional studies that are attentive to context can make a difference. Contrasting material and cultural experiences can serve to drive a wedge in routinised ways of thinking about a subject, provoking fundamental reconsiderations of practice, particularly when the declarations of proponents of the field simply fail to match up with reality. Faced with a situation—as is the case for many in the MENA region—where class determines the kind of schooling (if any) one gets, and the kind of schooling one gets determines the kinds of jobs one lands, the scope of career guidance is limited, and indeed might simply serve to reinforce the fiction of meritocracy (Willis 1977). Contexts, therefore, force the attentive observer of social phenomena to interrogate the ideological drivers behind practices, and to examine whose interests are ultimately being served.

In striving to do just that, the regional studies of career guidance that I have been involved in have highlighted several instances and examples of the way the specificity of context has implications for the way career guidance can be defined and imagined. While not at all meant as a blueprint for action—something that would contradict the contention that context matters—a few examples of such implications are nevertheless appropriate, and possibly valuable as pointers towards grounded theorising and the way forward for both policy and practice. Here, seven aspects that relate to regional characteristics, realities and needs are selected, with a view to tentatively exploring how they could shape and re-shape CEG, making it more fit for purpose. We will thus focus on 'inequality', 'informality', 'mobility', 'community', 'spirituality', 'identity' and 'reflexivity' as building blocks in our endeavour. The first three relate to the particularities of the labour market in the MENA region, while the remaining four relate more closely to cultural dynamics in a broad understanding of the term. All seven interact with and influence each other in complex ways.

Inequality

While, as Piketty (2014) has carefully documented, economic inequality is not only present, but is becoming more deeply entrenched within as well as between countries worldwide, the situation in the Arab Mediterranean Countries (AMCs) has deteriorated due to a number of factors. These include the adoption of market-oriented reforms (often mandated by the International Monetary Fund and the World Bank), the consequent reduction of public sector employment and spending on public sector services, and the impact of conflict and war. The latter not only wreak havoc on the productive capacities of a country and divert scarce resources towards the purchasing of military hardware, but furthermore lead to additional pressures on domestic markets due to the presence of large numbers of displaced persons (Hanieh 2016). More than 20% of people in the Arab region are poor—a percentage that has remained constant since the 1990s (Economic and Social Commission for Western Asia [ESCWA] 2014), indicating that the Arab region is the only area of the developing world in which poverty levels remained stagnant over the past decade and a half (Hanieh 2016). The proportion of population without the means to acquire basic nutrition and essential non-food items has averaged close to 40% in Jordan, Morocco, Syria, Tunisia, Lebanon and Egypt (Achcar 2013).

Economic disparities within and across the region abound, with such disparities reflecting lifestyles and life experiences that differ greatly, with a section of the population whose lives revolve around employment in the formal sector, another that works in both the formal and informal sector in an effort to make ends meet and to cobble a living together, yet another that works only in the informal sector, even more vulnerable to all sorts of exploitation, and finally those who are unemployed and live a hand-to-mouth existence. The language of ‘career’, ‘career choice’, and ‘career development’ cannot speak in the same way to these diverse groups. What passes in the ‘West’ as career guidance might be readily adapted to serve some groups—among them the élites attending private schools and universities, where career guidance facilities can be quite similar to what one finds in Europe and North America. One would, however, require a set of different tools and strategies to bring to bear on the lives of underprivileged and subaltern groups in a society that is economically highly stratified, and whose vulnerability and needs are rendered even more acute by economic restructuring and reduction in public spending.

What this means, in effect, is that there is no one, universal career guidance theory or approach that fits the needs and realities of the range of contexts and life experiences that are out there. As I have argued elsewhere (Sultana 2011, 2014d), the challenge for career guidance is not to privilege one theoretical approach, to the exclusion of all others, and to speak the same ‘language’ to one and all, but rather to unequivocally adopt an emancipatory and social justice orientation that aims for the flourishing of humans in a world that constantly strives to become more just and equitable. This would constitute the backbone around which we can then develop different ‘languages’, tools, strategies, and orientations that are adequately grounded, and which speak to the individuals and groups whose interests we would

wish to serve—also drawing judiciously and critically on the international depository of career development knowledge generated over the past century. In some ways, this takes us back to the roots of the field—at least in its modern iteration—when Frank Parsons thought of vocational guidance as an activity connected to a political project for ‘mutualism’ and social change as a strategy to further social development (Plant and Kjærgård 2016).

Informality

Linked to the issue of inequality is the divide between the formal and informal labour market, which is a characteristic feature of the MENA region and of much of the global South. Aspects of this informality include culturally embedded forms of relaying skills within extended family contexts and family-owned micro businesses, and the use of family-based networks in learning about job opportunities and in securing employment. In such a context, one finds oneself questioning the extent to which career guidance, as normally understood in industrially developed countries where formal labour markets tend to prevail, is at all relevant. The situation is even more complex because informal labour markets function in ‘converging parallels’ to more formal sectors, with individuals often inhabiting both spheres, working as a public service employee during the day, while investing spare capacity and skills in the grey economy after the official work is over, whether as an employee or as an entrepreneur. Career guidance would here have to take such realities into account, acknowledging the fact that individuals are strategic in the way they invest in education and training, in choosing work paths which give them security and status on the one hand, while leaving them with enough free time to pursue other work roles that supplement their regular salary on the other.

Few if any mainstream career development theories consider such profiles seriously. In order to do so, and to develop grounded theories that make sense of what may seem to be ‘atypical’ careers, but which in fact represent the daily lived realities of many in the global South, we need detailed qualitative and anthropological research that gets us closer to the phenomenological experience of life, of work, and of the search for well-being. In his ethnography of the *popolino* (‘populace’) in Naples, a town in the Italian *Mezzogiorno*, Pardo (1996, 2004) provides us with a clue as to how such grounded theories can be developed, focusing as he does on peoples’ everyday lives and narratives, whose involvement in the grey areas of the economy is driven by the will to survive and by resilience in the face of poverty and corruption. Here, the key strategies to manage the messiness of existence are entrepreneurialism and mutual assistance through a network of family, neighbours and friends, where the culture of *sapé fa* (‘cleverness’, ‘shrewdness’) involves pooling personal resources of all kinds (time, contacts, money, and spiritual assets) in order to achieve their own and their family’s material and nonmaterial improvement.

Pardo further argues that, within such a cultural framework, people make a sharp distinction between *lavoro* (‘work’) and *fatica* (‘toil’), providing us here with

another important insight as to why so many of those working in career guidance in the global South struggle with the term ‘career’, why some prefer ‘livelihood’ to it, and why translations into other languages—including Arabic—remain tentative and unsatisfactory. The writings of a number of Latin American authors (*inter alia* Bock and Bock 2005; Bohoslavsky 1983; Rascován 2005; Ribeiro et al. 2015), who engage with the career guidance field in situations that are roughly similar, economically and culturally, to the Italian *Mezzogiorno* and to other spaces in the global South, resonate with Pardo’s important work. Such informality, messiness, and threats to psychosocial wellbeing, produce what Ribeiro et al. (2015, p.195) call “discontinuous, fragmented, intermittent and vulnerable socio-occupational trajectories”—realities that cannot but challenge mainstream career guidance approaches, not just in the developing country contexts, but in the deprived and subaltern communities in the global North as well (Blustein 2006).

Mobility

Discussions and debates about the Arab Mediterranean Countries, inevitably gravitate towards concerns arising from the so-called ‘youth bulge’. Demography certainly has major implications for CEG—if anything in terms of the imperative to cater for the staggering number of young people who could benefit from even the most basic services. Part of the challenge here would be to find cost-effective ways of increasing access, which would include embedding career education in the curriculum, rallying community-based resources, and mobilising social media which, as the Arab Spring has shown, is the lifeblood connecting digital youth to each other (Herrera and Mayo 2012). But over and above this is the issue of mobility, with the spatial flows of young people within and beyond the region creating a complex series of issues and needs that career guidance services can help address. Such services would provide professional support in decoding the complex pathways into employment in other countries. They could ensure that local certificates are recognised and validated by the host country—a process that is greatly facilitated if National Qualification Frameworks are put in place (Keevy et al. 2011). They could also establish networked job-brokerage services that can greatly ease the stress and traumas that often accompany displacement. In an era that has seen an unprecedented increase in the number of ‘walls of shame’—from 15 border walls globally in 1989 to over 70 today, and counting (Jones 2016)—CEG services supporting youth mobility would also have to play a strong advocacy role in order to safeguard the rights of migrants to a livelihood, free from exploitation, abuse and discrimination—dangers that are especially of concern in the case of refugees, as these people escape political, economic and environmental devastation in a desperate bid for a decent life in those very same countries whose current wealth is at least in part the source of the South’s present woes. In this way, CEG services would help relay at least some of the much-vaunted benefits of globalisation to those populations that have yet to profit from it.

Career guidance for would-be migrants, however, also raises ethical, possibly intractable, questions as to whether services should be party to the brain drain (Hooley and Sultana 2016), which, while potentially advantageous to the country of origin through remittances and flow of expertise back home via associative networks—the so-called ‘brain gain’—nevertheless stymy indigenous development in all sorts of ways (Musette 2016). CEG services catering for prospective migrants also need to develop a profound awareness of what leaving one’s community means, in a region where one’s spatial and familial anchorage is such that those who do leave adopt the place name of their origin as their new name.

Community

The importance of thinking of career guidance as a situated social practice, where its meaning, value, and articulations respond to culturally embedded worldviews, is often emphasised by those reflecting on career guidance in the global South. While one must be careful not to exoticise the ‘other’, and to think of collectivist and individualist orientations in simplistic binary terms, it seems clear that such differences do have a bearing on the way career guidance can be imagined and delivered. For groups from particular economic, social, ethnic and gendered backgrounds, careers and families are co-dependent. Such groups therefore manifest a tendency to think of one’s future occupation as related to one’s family of origin and to one’s future family, with career exploration being pursued in holistic ways, acknowledging the interface between work, leisure, and multiple roles.

And, yet, mainstream career guidance theories rarely take into account such an interdependent and relational view of the self, even if we see increasing moves in this direction (Blustein et al. 2005; Flum and Cinamon 2006; Law 1993; Thomsen 2012). Instead, CEG is mostly seen as one of the ‘technologies of self’ through which individuals constitute themselves as subjects (Foucault 1988)—with the most recent iteration of this perspective being articulated via the ‘life-design’ and ‘career construction’ movement (Savickas et al. 2009). CEG approaches that are sensitive to such interdependence would not, for instance, offer career information, advice and guidance separately from a more holistic approach to overall wellbeing, and would therefore buck the trend that has seen a separation of roles between personal counsellors and CEG practitioners. The ‘psycho-medical’ model which requires a client to see his or her CEG specialist individually would also be questioned, with orientations towards work and life futures being considered as a complex negotiated settlement between family members, where different interests and forces come into play, and where a skilled helper works with rather than against the client’s culture in order that the client’s interests—as defined by him or her—are safeguarded. As indigenous Latin American approaches to CEG have emphasised, persons are not free-floating individuals but rather are *produced within relationships*, in *concrete situations* that are both *determining*, as well as open to the possibility of *re-creation* (Ribeiro et al. 2015). Such community-oriented, ‘psychosocial’ approaches are par-

ticularly suitable within unequal socioeconomic contexts, since they not only take into account the inherent constraints and possibilities but mobilise community resources to overcome the former and release the latter.

Spirituality

Similarly important, and related to the notion of culturally embedded practice, is the consideration of the impact of religious beliefs on career exploration and decision making processes as well as on orientations towards career development. Here the proposition is that those whose lives are imbued with a sense of a transcendent *telos*, and who believe that engagement in work is a response to a calling from ‘God’ (however she/he/they is/are conceived to be), experience career differently from non-believers. They may, for instance, have shorter, less chaotic and more stable exploration periods before making life commitments, driven as they are by a sense of purpose that helps establish priorities and assign meaning to life events (Nelson 2003).

A case in point which helps illustrate the above is provided by the anthropologist Saba Mahmood (2005), who highlights the way women who are part of the piety movement in Cairo differ greatly in their approach to career, and deploy divergent concepts of ‘self’ and ‘self-fulfilment’ than those embedded in western liberal notions of female emancipation through investment in life careers. The life project of the women in the mosque movement that Mahmood describes is neither to ‘find themselves’, nor to ‘express themselves’ through work—a staple ‘given’ of mainstream career development theories; rather, it is to construct a virtuous self through performative behaviour that shapes inward disposition.

In other words, these women consider the self not as referencing a pre-existing identity whose potentiality needs to be freed from the social constraints of tradition—which would be the redemptive narrative encouraged by liberal feminist thought, and the task of career guidance conceived as an emancipatory project. Rather, Mahmood shows how, for these women, the ‘self’ and the body are schooled into reproducing such core Muslim values as modesty, shyness, diffidence, sincerity, fear and awe, as well as *sabr* (‘forbearance’), in a lifelong process of ethical formation, thus learning how to be pious in their everyday lives not just through wearing the veil, but through other forms of bodily enactments of piety. Work then becomes another terrain where piety can be exercised. At work, meaning and fulfilment are to be obtained not from the intrinsic nature of the tasks performed as much as from the dispositions that one brings to them: memory, desire and intellect are trained to behave according to established standards of conduct, and “submission to certain forms of (external) authority is a condition for the self to achieve its potentiality” (Mahmood 2005, p. 149).

Indigenous approaches to CEG would therefore need to take into account the way the spiritual is often an intrinsic dimension permeating one’s being. The effort to develop career development theory and practice grounded in the life-worlds of

specific populations is a challenging yet necessary task—one which, it has been persuasively argued, unsettles and troubles the categories that have traditionally informed vocational psychology in mainstream career guidance approaches (*inter alia*, Leong and Gupta 2008; Leong and Pearce 2011).

Identity

Considerations of the phenomenological and ideological chasms that separate the liberal notions underpinning mainstream career guidance on the one hand, and contrasting approaches to the ‘self’ and to what constitutes ‘fulfilment’ on the other, raise important questions as to how, if at all, ‘western’-style practices apply to a number of contexts in the global South, or can be adapted to them. A first reaction would be to say that the two worlds are incompatible: one celebrates individuals as ‘free agents’, called to define their own life project in line with their own desires, values, and goals, and not those of others—what Guichard (2005) refers to as the imperative for ‘lifelong self-construction’. The other embraces views of the self that are relational and inter-dependent in nature and scope, where tradition, family and community are the matrix in which life expectations and aspirations are imbricated, and where spirituality provides the justification, sustenance and comfort needed to subordinate self to society.

The fact is, however, that many young people in the MENA region—as much as in the global South—live in *both* worlds (Herrera and Bayat 2010), sometimes deftly, other times awkwardly juggling demands, values, and world views which are contradictory *and* compatible at the same time. They are actively involved in the process of producing meaning, and engaged in other kinds of border-crossings that, while not necessarily requiring visas, are equally if not trickier, policed as they are by all sorts of epistemological, ontological, and normative controls. Such a view takes us away from notions of bounded and settled identities that “homogenize communities under a single aspect of their identities” (Cantle 2016, p.8), ignoring the multiple ways in which people “see themselves through class, gender, profession, language, literature, science, music, morals or politics” (Sen 2006, p.175).

This is where some of the recent articulations of vocational psychology are relevant and useful, particularly Guichard’s notion of ‘identity frame’—which draws on Bourdieu’s insight that the social system is embedded in our bodies and minds, such that it forms a ‘frame’ that organises the ways in which we subjectively experience the world. Guichard (2009) argues that individuals are not passively ‘impregnated’ with the meanings of the social system into which they are born, but rather ‘seize’ upon these meanings, making them their own. This ‘seizing’—of, for instance, gendered identity—is not necessarily conscious or volitional, but it can be made so through enhanced reflexivity.

There are thus two ‘moments’ here that provide us with pointers in the challenging task of constructing context-sensitive career guidance approaches. The first requires enhanced awareness of the ‘frame’ through which the individuals and

groups practitioners work with make sense of the world around them. This calls for deep appreciation of context, and an equally deep respect for the lifeworlds of others. It also calls for particular forms of initial and continued professional training that equips practitioners with the intellectual, cultural and dispositional skills to develop grounded approaches while also selectively drawing on the insights generated in the field by over a century of research. The second requires an acknowledgement of the way such ‘frames’ encapsulate and vehicle power hierarchies that are embedded in the social system they arise from. While the first moment calls for empathy and ‘acculturation’, the second privileges ‘reflexivity’ and conscientisation.

Reflexivity

Elements of the ‘identity frame’ that spring from the social structuration of life can be so deeply embedded that they are not perceived as an object of reflection, critique, and change. In such cases, unjust practices and structures—present in all societies—are not experienced as ‘oppression’, but rather as ‘life’ *tout court*. However, identity frames are not immutable, but rather develop and evolve over time, in relation to new experiences and environmental stimuli, and as a result of individualised interpretation of socially structured experience. It is here that career guidance practitioners have a particularly important—if delicate—role to play. Most countries in the MENA region tend to promote CEG programmes as a way to better align education to market demands at the service of human capital planning. Many, however, also make a case for programmes that depart from a merely technocratic agenda to embrace a more emancipatory one.

This involves intervening in the lives of individuals and groups as they go about constructing meaning in front of the challenges and developmental milestones of life, with the goal of promoting reflexivity. Such interventions are inevitably fraught with dilemmas, where practitioners have to work in the difficult and uncomfortable ‘liminal’, ‘in-between’ space of doing what, in their own cultural and political understanding, is normatively correct, and what is considered appropriate from the perspective of a competing value system. Just to illustrate what I mean here: career guidance practitioners from the global South often refer to instances where strong pressures are exerted by a community requiring daughters to conform to restrictive gender stereotypes; to families siphoning most of the available financial and social capital in the direction of a first-born male; and to the privileging of duty and deference to authority at the cost of self-determination and self-fulfillment. Here, a way forward that side-steps both normative relativism and cultural imposition consists in working with the reflexive capacities of groups and individuals, fostering critical understanding, and providing the tools needed to decode the way in which social forces come together to define the horizons of opportunity for young people, often on the basis of social ascriptions such as class and gender. Freire’s (1972, 1985)

dialogic model is of enormous value in this regard, having great resonance with realities in the global South (Mayo 2004).

Career education programmes thus conceived can also do much to conscientise young people about the opportunity structures available, informing them about the education and training pathways that can be followed in order to access livelihoods, and equipping them with the knowledge, skills, and dispositions that support them in making informed choices and to plan strategically for the future. CEG programmes can also address the issue of attitudes towards work, examining their cause and origins, and problematising them in relation to broader understandings of the values that should guide a community in its efforts to generate and distribute wealth in an effective and just manner. Such programmes would give due importance to issues of worker rights, gender equity, the importance of protecting vulnerable groups—including child labourers and so on—while combining conscientisation with advocacy measures that single out oppressive structures and unfair practices that work against the interests of subordinate groups.

Conclusion

The focus of this chapter has been on the Arab countries around the Mediterranean. This empirical focus has, however, also served to illustrate the broader point that context matters when it comes to thinking through the meaning and relevance of career education and guidance as a social practice. The chapter thus speaks to the need of grounding CEG approaches in the specificities of economic, social and cultural realities.

The motive for doing so is not merely ‘academic’; rather, the challenging task of understanding CEG in context is also driven by the political motive of celebrating what we have called, following de Sousa Santos, ‘southern epistemologies’. This is not about developing an anthropological, voyeuristic interest in what, to western eyes, seems ‘exotic’ and ‘other’; it is about acknowledging the fact that the global production of knowledge, like the distribution of wealth and power, is structurally skewed towards the global-North. If we are to attend to de Sousa Santos’ dictum that “there can be no global social justice without global cognitive justice” (2007b, p. 63), then the international career guidance community needs to seriously reconsider its tendency to adopt a universalising language in the way the field is conceptualised and practiced. It would also become more reflexive about the way Euro-American master narratives about concepts central to CEG—such as work and wellbeing—constitute ‘regimes of truth’ situated within particular cultural and social systems that do not brook the possibility of coexistence with other forms of knowledge, and other ways of ‘being in the world’. They thus have had—and continue to have—a harmful impact on the subjectivities of colonised/neo-colonised subjects and need to be decolonised.

Such a realisation signals the need to open up discursive spaces that bridge current global divides and inequities in the production of knowledge, also by amplify-

ing multiple voices, by accommodating indigenous practices, by developing conceptual and methodological approaches that capture and understand the creativity emerging at the periphery and semi-periphery, and by creating the conditions for new perspectives to emerge from mutual learning between different frameworks, traditions and knowledge projects, where both scientific and lay knowledge can coexist. In drawing attention to such ‘localisms’ and ‘particularisms’, this chapter has hopefully contributed to the dialogue that makes such mutual learning possible.

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Chapter 25

Training Career Practitioners for the Current Context



Spencer G. Niles, Raimo Vuorinen, and Azra Karajic Siwiec

Abstract Training programs for career practitioners continue to increase in both quantity and quality. For example, international opportunities for those interested in career development facilitator training have increased substantially during the past decade. In this chapter we provide highlights of these developments as they have occurred throughout the world. The chapter details the substantial variability that exists regarding the training career practitioners receive. Finally, we make recommendations regarding minimal training standards and the need for more uniform language within our profession.

Keywords Training · Standards · Career counselling · Career coaching · Career practitioner

Training programs for career practitioners continue to increase in both quantity and quality. For example, international opportunities for those interested in career development facilitator training have increased substantially during the past decade. Additionally, the National Career Development Association (NCDA) in the United States recently created six credentials for career practitioners. The NCDA credentials require particular levels of training and experience for those engaged in providing more basic level career services (Certified Career Services Provider) to master's level career counsellors (Certified Career Counselor) to those who supervise career counsellors (Certified Clinical Supervisor of Career Counseling) to those who train career counsellors (Certified Career Counselor Educator). Each of these

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credentialing options is intended to increase the professionalism of career practitioners and provide clearer information to consumers regarding the training of those providing various levels of career interventions.

In Europe, the European Lifelong Guidance and Policy Network Guidelines (ELGPN 2015) emphasise the importance of professionalism and highlight the need for citizens to have confidence that lifelong guidance activities are offered by providers with the knowledge, competence, and ethical standards necessary for competent service delivery. A key element to achieving this level of professionalism is the availability of appropriate training. Like the NCDA credentials, the ELGPN Guidelines support the stipulation of qualifications that ensure that providers have met specific minimum standards of learning and competence.

It is no coincidence that the increasing attention being given to career services comes at a time when the nature of work is changing dramatically. Continued corporate downsizing, emerging technological advances, the relative ease in outsourcing numerous occupations, the growing number of dual-career couples, the burgeoning “gig economy”, and an expanding contingent workforce all represent changes in the work experience. Each of these changes also presents workers with rather significant career development challenges. Career practitioners must possess the requisite knowledge and skills to address such challenges effectively. Understanding the challenges confronting workers enables practitioners to construct interventions that are relevant to the current context. Thus, training experiences for career practitioners must constantly be updated and adjusted so that trainees have relevant knowledge, awareness, and skills to assist people as they attempt to cope with contemporary career concerns.

Finally, the interaction among career development needs, career development services available, and public policy must be acknowledged. Policy impacts the availability of career services, the training required for competent service delivery, and the availability of that training. Thus, the availability of career services and career practitioner training programs becomes intertwined with national, state/province, and local priorities. Evidence exists, however, that the training and competence of career guidance staff make an essential contribution to the development of high-quality career guidance services, which are essential in meeting the needs of national policy aims (e.g., Cedefop 2009, 2011; ELGPN 2012; Hooley 2014).

Developing a Common Language in Training Career Practitioners

There is even a more basic challenge, however, that confronts the career development field. Specifically, the field of career guidance has, for most of its existence, been linguistically challenged. That is, many consumers of career services (and, unfortunately, practitioners) have misused many of the key terms within the field. For example, career services providers occasionally talk about “doing career

development” as if “career development” were an intervention rather than the object of an intervention (Herr et al. 2004). Similarly, practitioners often confuse the terms “career guidance” and “career counselling.” This lack of precision confuses practitioners, students, and clients and, therefore, is a barrier to advancing the efficacy of career development theory and practice globally (often referred to as “Lifelong Guidance” in Europe). When language lacks precision, the implication is that terminology does not matter. However, words have power in that career development practitioners are “engaged in a verbal profession in which words and symbols frequently become the content of the interactions they have with clients” (Herr 1997, p. 241). Thus, the need exists for greater clarity and specificity with regard to the key terms related to career development interventions. Such specificity enhances the credibility of our profession and provides a common ground for training career guidance practitioners. Developing a common language for the profession enhances the globalisation of training practices and enhances the internationalisation of training opportunities,

In this chapter, key terms are defined as follows:

Career development. This concept refers to the lifelong psychological and behavioural processes as well as contextual influences shaping one’s career over the life span. As such, career development involves the person’s creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self-concepts (Niles and Harris-Bowlsbey 2017). Ideally these processes lead, in part and with the help of career practitioners, to the development of career management skills or career competence.

Career development interventions. If defined broadly, it involves any activities that empower people to cope effectively with career development tasks (Spokane 1991). For example, activities that help people develop self-awareness, develop occupational awareness, learn decision-making skills, acquire job search skills, adjust to occupational choices after they have been implemented, and cope with job stress can each be labelled as career development interventions. Specifically, these activities include individual and group career counselling, career development programs, career education, computer-assisted career development programs, and computer information delivery systems, as well as other forms of delivering career information to clients.

Career counselling. This involves a formal relationship in which a professional counsellor assists a client, or group of clients, to cope more effectively with career concerns (e.g., making a career choice, coping with career transitions, coping with job-related stress, or job searching). Typically, career counsellors seek to establish rapport with their clients, assess their clients’ career concerns, establish goals for the career counselling relationship, intervene in ways that help a client cope more effectively with his or her career concerns, evaluate a client’s progress, and, depending on a client’s progress, either offer additional interventions or terminate career counselling. Career counsellors often must have advanced training in counselling, psychology, and career development.

Career coaching. Also involves a formal relationship in which a career coach serves as a personal consultant to an individual seeking to deal with work-related concerns such as balancing home, work and career; learning interview skills; strengthening managerial skills; identifying core skills; enhancing personal marketability; and making effective career choices. Career coaches may have advanced training that is similar to the training of career counsellors (career counselling competencies include career coaching) but they may have less training and focus on job search coaching and goal setting rather than the psychological aspects of career decision-making.

Career education. This is the systematic attempt to influence the career development of students and adults through various types of educational strategies, including providing occupational information, infusing career-related concepts into the academic curriculum, offering various worksite-based experiences, and offering career planning courses (Niles and Harris-Bowlsbey 2017). Many educators engage in career education as they incorporate career concepts into subject areas such as mathematics, language arts, and science. Often, those providing career education have minimal training in career development and no training in counselling. In many instances, they work in conjunction with counsellors who possess such training.

Career development programs. These can be defined as “a systematic program of counselor-coordinated information and experiences designed to facilitate individual career development” (Herr et al. 2004, p. 28). These programs typically contain goals, objectives, activities, and methods for evaluating the effectiveness in achieving program goals. Career counsellors can work independently in designing and/or delivering career development programs or as part of a delivery team including other counsellors, career coaches, and/or educators.

Co-careering. The concept of co-careering refers to the shared expertise and meaningful co-construction of career issues among community members in social media. Here, a new competency for career practitioners—an ability to utilise social media for co-construction on co-careering—is linked to creating and maintaining a reliable, properly managed and monitored online presence and participation within the relevant communities in which questions are discussed (Kettunen 2017).

Defining terms becomes essential for discussing training career guidance practitioners. It clarifies who is being trained to perform what services to which population(s). There is great variation across nations relative to the terminology used to describe career development interventions themselves. Typically, career development interventions address topics such as increasing self-clarity, helping people to acquire skills to connect their self-understanding to work opportunities, and coping with transition issues (Niles and Harris-Bowlsbey 2017). When coupled with the already existing language differences, the variation in contexts makes communicating about training career practitioners even more challenging. As implied previously, keeping abreast of the various contexts in which people live and in which careers are constructed is an essential task for career practitioners.

International Contexts

Because contexts vary, career services vary within and across national boundaries. It would be naïve to assume, therefore, that there is, or that there should be, uniformity in the training career practitioners receive. Uniqueness within and across nations requires career practitioners to develop context-specific competencies to respond to their respective settings. What follows is a brief overview of some factors within national contexts that shape career development needs and, therefore, the training required for providing effective career services with specific attention paid to Argentina, Europe, Asia, Australia, South Africa, and North America.

Argentina

Argentina was significantly impacted by the immigration of Europeans in the twentieth century, predominantly from Spain and Italy. In addition, Argentina experiences challenges that are similar to those experienced by many other countries, specifically unemployment, poverty, income distribution inequalities, and the deterioration of social services (Aisenso et al. 1999).

Argentina's Psychological Techniques and Professional Guidance Institute was developed in 1925 and has served as a training institute for guidance counsellors since 1929. Lack of public policies and funding addressing professional guidance limited the growth of institutes promoting career services. Despite this, career services have made their way into national universities and high schools in Argentina. In the 1980s and 1990s, career services in Argentina increasingly focused on activities such as developing job search skills and providing job skills training related to occupational areas offering the greatest likelihood for employment—an important response for addressing the country's frictional and structural unemployment. In response to the need of the economically challenged, schools, universities, and hospitals in Argentina provide free guidance programs. In schools, there are counsellors who provide career guidance to students; however, service providers tend not to be trained specifically in career development interventions. In some schools, the responsibility for providing career guidance rests with the teachers.

Brazil

Privatisation of businesses during the 1990s made changes in the way people managed their careers in Brazil. Careers were tied to organisations and, with privatisation, people's careers became less tied to the organisations and citizens of Brazil became more flexible to changing organisations. Some organisations are now investing energy in developing and retaining talent of their employees as a response

to boundaryless careers. In an examination of employees that voluntarily resigned and those who stayed at a company that was purchased and privatised, authors found that both groups in a response to the changing times had a desire towards learning. That is, commitment to own learning and increase in professional development predicated their satisfaction whether they were employed or not. Whether the employees had a secure job with a company who has committed to them or were unemployed, the presence of commitment to education and deeper development is present. Veloso et al. (2015) warn that security related to jobs, stability, and financial security are not enough of a cushion to prevent employees from social pressures such as the changes of privatisation and boundaryless careers.

Latin American countries do not have a well developed vocational guidance system like some European countries. The majority of the focus is on the educational sector where the belief is greatest amount of career guidance takes place. Some authors have called for the development of policies that are about improvement of the functioning of guidance. Per Gonzales and Ledezema (2009), education in the field of guidance and/or counseling is only existent in Venezuela and Costa Rica. Many academics have called for comprehensive guidance and counselling in schools and what that training may look like however development of comprehensive systems of training skilled career practitioners is still in its infancy.

Europe

In European countries, the provision of career services is a public interest that transcends education, training, employment and social inclusion policies. In 2004 and 2008, the European Union Member States were invited – in the Council (Education/ Youth) Resolutions to improve co-operation and co-ordination on the provision of career guidance services in order to widen access and to ensure coherence of the provision as well as to improve the initial and continuing training of career practitioners (European Council 2004, 2008). In 2005, the European Union Member States agreed that the professionalism and qualifications of service providers constitute one of the five quality meta-criteria for national guidance systems. This has led to a significant increase in the development of training programmes and practitioner competence frameworks through EU funded networks among training providers. The competence frameworks intend to offer a generic description which incorporates all of the activities needed to deliver coherent career guidance services and can be applied in national contexts in accordance with national policies or accreditation mechanisms (Vuorinen and Kettunen 2017).

Many European countries provide career services under the umbrella title of the Public Employment Services (PES). The goals of services provided at a PES have traditionally been short-term and oriented toward helping an individual gain employment. Public Employment Services have also helped individuals to gain eligibility for financial support and to access publicly funded training services. More specifically, PES has four identified functions as follows: (a) job broking; (b) labour

market information; (c) administering labour market programs (e.g., job search programs; training programs; direct job creation programs); and (d) administering unemployment benefits (Sultana and Watts 2006).

In meeting the demands of a rapidly changing world of work, the European Parliament and Council has invited the PES to support initiatives aimed at better skills matching, decent and sustainable work, enhanced self-motivated labour mobility and facilitating the transition from education and vocational training to work. The European Commission Mutual Learning Programme for Public Employment Services, the PES to PES Dialogue program (European Commission 2014), identified that the skills and competences of employment counsellors are critical for achieving the goals of the European employment strategies. However, there are variations in the entry requirements, competency profiles, and job profiles, as well as in the degree of the flexibility and autonomy of services across countries. The diversification of the job profiles and training of career practitioners depends largely on the operational PES structure, priority tasks, and active labor market programmes used in the country (Sienkiewicz 2012).

Sessions with PES career practitioners typically range from 45 min (Germany) to an hour (Finland). They often include diagnosis in respect to clarifying the individual's concerns, goal setting, and developing a plan of action to achieve the identified goals. Career guidance for the employed covers a range of learning activities and products that enable them to take stock of their present work situation (role, conditions, content), the competences they have acquired from work and their validation, and to plan further learning and work transitions, including transitions into retirement. Guidance for unemployed adults refers to a wide range of career counselling activities built on co-construction, by the counsellors and the clients, of the clients' relationship with working life, as well as products that help unemployed jobseekers to improve their employability skills and reintegrate in the labour market. These activities include assessment, profiling or screening, assistance in managing job changes and upskilling, coaching in career management and social skills, job-broking and advocacy, job-search assistance activities, counselling, job club programmes, provision of labour market information, and, if relevant, use of psychometric tests. Employment counselling, a basic service delivered by PES counsellors, is aimed at the sustainable activation and labour market integration (assessment, profiling, etc.) of the unemployed. Specialist career guidance may be provided by PES for those who are seeking a more comprehensive solution; for example, a low-skilled unemployed young person or adult who wishes to pursue a vocational training programme (ELGPN 2015). Individuals requiring more intensive career assistance tend to be referred to staff members with more advanced training in areas such as psychology, education, and sociology.

The question of the future of working life has become an integral part of the career services in PES. Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Norway, Portugal, and Slovakia are some of the countries where substantial labour market information and forecasts are provided to PES clients. PES staff members also visit schools and universities to present information about the labour market. In addition, PES staff members can promote indi-

viduals' access to experiential and non-experiential forms of labour market information by offering work-experience programs to students to help them become familiarised with the world of work.

Sultana and Watts (2006) have observed four trends related to PES career services as follows: (a) self-service provision; (b) tiering of services; (c) decentralisation from the government; and (d) a move towards outsourcing. Self-service provision involves individuals' use of self-help strategies while having access to career and labour information. Self-help strategies include using career resource centres, self and career exploration packages, web-based job-search resources, and creating one's own web pages for job search purposes. Tiering of services refers to the several levels of career services provided: self-service, group-based services, and intensive case-management. Decentralisation implies that PES is moving away from using federally based employment policies and relying more upon local management and design of services for the implementation of employment policies within regions and provinces. Outsourcing refers to the movement towards being an organisation able to manage specific relations with other agencies to provide services instead of being a largely self-sufficient organisation (Sultana and Watts 2006). This implies that the role of PES is shifting to a new role of conductor, enabler and builder of bridges and networks with other service providers. It means adopting a 'co-creation' and continual development approach within PES and with partners, customers, citizens and communities. It also means, increasingly, a shift from service provision to commission and outsourcing of services by PES (Arnkil et al. 2017). In this emerging context, practitioners need new competencies to manage their own roles and how they reach out in geographical and professional communities (Cefefop 2009).

Germany The largest country in the European Union is Germany with a population of over 82 million. Germany's commitment to their people and vision for people as its greatest wealth is exhibited through their mandated constitutional legislation for education and employment systems within Federal States (Länder). The Federal Government maintains control of vocational training, employment and the labor market, and career guidance is also held under the purview of the Federal Government through the Federal Employment agency (FEA) and municipal Employment Agencies (EA). With globalisation factors, and in view of boundary-less careers, the aim of educational guidance (Bildungsberatung) in the education and vocational guidance (Berufsberatung) in the vocational training and employment is starting to blend due to the desires for lifelong learning of German citizens. All areas of career guidance are working jointly to provide integrated and connected guidance to Germany's citizens.

By law, all students are offered counselling regarding their education, learning difficulties and psychological assessment in school. Those providers are either specialised teachers or social workers, and, when there are needs for psychological assessment, school psychologists fulfill that need through counseling, assessment, and diagnosis of learning-related disorders. As stated earlier, connection with municipal Employment Agencies (EA) is emphasised to bring together integrated

guidance systems, and, at times, it involves coordinated effort to provide apprenticeship/internships to their students as they work to attain a deeper level of understanding for the world of work prior to graduation.

For career counsellors that are employed by the EA, the knowledge of labor markets, career information systems, the ability to put together career fairs, and provide various vocationally-oriented sessions is important. Career counsellors in EA serve as brokers between students and local businesses and trading unions and make recommendations for further career related testing and counselling by trained psychologists for their clientele. EA services are provided free of charge and accessible to anyone. Matching job seekers with available local job opportunities is done by placement officers who have gone through minimal competencies of counseling. In longer unemployment periods, citizens are required to undergo counseling to offer broad-based support not just for jobs and training but for financial support as well. In order to offer support to employees' desire for lifelong learning, financial assistance is offered.

Needless to say, career practitioners in Germany have an important role and provide services to a wide range of stakeholders including students, parents, and employers. As a way of offering deeper connections to employers, the German Trade Union Federation has also promoted career guidance by having their own career guidance practitioners, and, through it developed counselling competencies for career guidance practitioners. Providers of career guidance have also grown since the end of the FEA, which allowed municipalities to manage career guidance respective, which, in turn has led to an increase in the number of career practitioners in the private sector.

All in all, while there are aspirational desires for promotion of autonomy, confidentiality and basic requirements regarding use of psychometric assessments, there is no point of agreed upon training and development standards, and organisations such as The German Association for Vocational and Educational Guidance (Deutscher Verband für Bildungs- und Berufsberatung e.V., dvb; <http://www.bbreg-ister.de>), The German Association for Counselling (Deutsche Gesellschaft für Beratung e.V.; Essentials für Weiterbildung in Beratung/Counselling; <http://www.dachverband-beratung.de>.) and the German "Society for Information, Guidance and Therapy at Universities" (GIBeT) offer a training certificate for guidance practitioners in higher education (www.gibet.de/fortbildungszertifikat.html). In addition, the International Association for Educational and Vocational Guidance (IAEVG 1995, 2003, 2017) ethical guidelines are also valued. Mandated following of the rules discussed is mainly left in the hands of Länder, regional authorities and municipalities. An important proponent of quality assurance is the German National Guidance Forum in Education, Career and Employment (nfb; www.beratungsqualitaet.net) (Jenschke et al. 2014).

The basic premise in training is either Bachelor or Master's level education and, in the cases of providers of career guidance, attention is given to teaching qualifications as well. Continuing education for career guidance practitioners is offered within their employment site so that there is a greater degree of competence to serve their particular sector respective of the labor market trends for example.

Ireland In Ireland, compulsory education is from age 6 to 16. Secondary school education is divided into secondary, community and vocational options. Students in their final years of compulsory education mostly chose the leaving certificate program, which allows admittance to higher education and training. Higher education is considered to be universities, institutes of technology, specialisations and private colleges.

Regarding the specific provision of career guidance in the schools, the document entitled *Programme Recognition Framework: Guidance Counselling Criteria and Guidelines for Programme Providers* (Department of Education and Skills 2016) offers the following examples of school-based guidance activities:

- Designing, delivering and evaluating guidance learning and developmental programmes relating to personal and social, educational and career development for individual, group and classroom settings;
- Developing effective teaching, learning and assessment strategies for the guidance class;
- Providing individual and group counselling to facilitate personal and social, educational and career development and at moments of personal crisis;
- Providing labour market, learning and career-related information through Information and Communications Technology (ICT) and blended learning approaches;
- Planning and organising workplace learning and establishing links with the wider business community, agencies and voluntary sector;
- Using psychometric tests (i.e. ability and aptitude tests and career interest inventories) to facilitate career decision-making and personal development, and to support learning and educational choices;
- Working with parents (as appropriate) and referral agencies in facilitating the personal and social, educational and career development of students and service users;
- Referring students and service users to external agencies and professionals, as appropriate; and
- Establishing close ties with feeder schools, where appropriate, and with centres of further education and training and higher education.

The National Training Authority provides career information and guidance services to the public. McCarthy and Coyle (1999) noted that the guidance element of the National Training Authority services is limited. Human resources departments of large organisations are, however, increasingly providing career development training for employees.

When attending the National Training Authority service interview, a job-seeking action plan is developed and put into place. The interviewee is further referred to employment openings or relevant training opportunities. Job seekers may be referred to a local employment service for more intense guidance and counselling, or referred to another relevant agency. The National Training Authority worker stays in touch with the job seeker throughout the process to ensure progress and success. Priority

is given to job seekers who are unemployed and in a disadvantaged group. Additional services are confidence building and providing resources for intensive job searching.

School-based guidance counsellors must be qualified second-level teachers and, in addition, hold the relevant recognised qualification for school guidance work. The Programme Recognition Framework for Guidance and Counselling in Ireland (Department of Education and Skills 2016) is a new measure for promoting professionalism in the guidance provision. The framework sets out criteria and guidelines for an initial training program that intends for its program graduates to work in guidance services under the remit of national governmental authorities across the educational and labor market sectors. The intention is that the framework will enable the training providers of initial counsellor training programs to design and deliver career education curricula and sets of learning experiences to equip graduates with the necessary skills and competencies to design and provide quality services in diverse contexts for diverse client groups. The required competency areas cover guidance theories, counselling skills, testing, use of labour market information, communicating, collaborating, networking, research and evidence-informed practice, leading and managing the services. The programs leading to qualifications should meet the minimum level of 60 European Credit Transfer System (ECTS) in guidance and should normally be delivered over 1 year full-time or 2 years part-time. A list of programmes that lead to the awarding of such recognised qualifications is available on the National Centre for Guidance Education (NCGE) website (<https://www.ncge.ie>).

Spain Spain is a constitutional monarchy with organised autonomous communities, provinces, and municipalities (Hidalgo et al. 2002). In 1990, a law was passed that came into effect in the 2002/2003 academic year specifying the following (among others): (a) the school-leaving age was changed from 14 to 16 years of age (16 is minimum working age in Spain); (b) providing students who do not obtain a secondary school leaving certificate with a social guarantee program; (c) providing students with vocational training emphasising work-related training and not so much academic focus; and (d) guaranteeing a support system for students.

A training program, passed in 1993, established three subsystems of vocational training as follows: (a) regulated training; (b) occupational training; and (c) continuing vocational training. Regulated training focuses on young people and is governed by the education authorities. Occupational training targets the unemployed providing them with guidance and training to increase employability. Continuing vocational training targets the employed and is governed by employers and unions seeking to provide training in various employment sectors with the goal of raising the qualifications and skills of the employed. Clearly, career practitioners can play vital roles in each of these subsystems.

On a national level, the vocational training program aims to establish a national system of vocational qualifications and provide lifelong learning opportunities. Further, the goal is to provide training to those who leave school prematurely so they can develop increased employability. Spain's vocational training also aims to

develop an integrated system of career information and guidance using the European Foundation for Quality Management (EFQM) as a model. There is also a strong emphasis on addressing the career development needs of persons who are members of diverse groups. For example, social guarantee programs target academic failure and dropout problems of people aged 16–21 that have limited employability. These programs aim to foster the acquisition of the technical knowledge and skills needed to perform a given type of work while also facilitating re-entry into to the educational system.

Nordic Countries In Nordic countries, the Ministries of Education and Ministries of Labour develop policies for career services and have, to a large extent, been inspired by recent lifelong guidance (LLG) policy development in the European Union and other OECD countries (OECD 2004). However, they have followed slightly different, yet complementary, paths in terms of practice, research and policy development. The Nordic co-operation has raised the awareness of the transversal nature of career guidance policies and the common understanding of shared terminology and goals for a coherent national lifelong guidance system (Plant 2003).

In all the Nordic countries, there seems to be a consensus on the importance of lifelong guidance as an important vehicle in promoting lifelong learning, labour force development as well as in social equity. Communication with national stakeholders has led to continuous processes of exchange of information on guidance-related initiatives and has resulted in developing measures that make co-operation between ministries more efficient. For example, Norway has established regional career centres for adults, created a compulsory career-learning program in secondary school and developed a new Masters programme in career guidance. Iceland has introduced a universal right to career guidance and promoted outreach guidance services in workplaces. Sweden has been actively developing guidance services for immigrants and refugees. The Nordic Association for Educational and Vocational Guidance is the association in charge of the Nordic career professionals through the development and implementation of professional and ethical standards.

In Finland, career education is a mainstream strategy in education and legally defined student entitlement. Career education is a compulsory element in the curriculum and a continuum from comprehensive education to further education. In grades 1–6, guidance is embedded in the work of the classroom teachers. Within career education, the pupils get support in acquiring social skills and team skills, methods in learning, studying as well as seeking and obtaining information. The 1st years in schools form the basis for transversal life skills and strengthen their positive self-image as learners. Pupils are encouraged to take responsibility of their daily life, learning, decisions and activities as an active member and actor within their peer group and within immediate surroundings. In secondary level (grades 7–9), the career education comprises altogether 76 h of scheduled activities in students' timetables over the 3-year period. In upper secondary level education, the national core curricula includes two 38-h compulsory modules of career education. In addition, there is an entitlement for individual guidance and group counselling, and work-experience periods.

In practice, the students examine the links between different school subjects with further studies, entrepreneurship, working life and future skills needs. They learn to use educational and labour market information, advice and guidance services both within one-stop-career centers and within online spaces. Emerging emphasis is on the use of social media. The students learn to present themselves within online spaces as well as to evaluate the reliability and validity of career information and the various sources of it in the light of career planning. This legally defined time allocation in the core curricula is a cost-effective preventive measure to provide the whole student age cohort with an opportunity for acquisition of lifelong Career Management Skills as an explicit competence of lifelong learning, not only how to make an individual choice of next school level. The school counsellors have the main responsibility of the delivery of career education in co-operation with all staff members. The qualifications and competences of school counsellors are regulated: either a Master's degree in school counselling or a 60 ECTS postgraduate diploma is required.

In Denmark, priority is given to educational and vocational guidance for young people. The Danish Act on Guidance aims to develop a transparent guidance system with easy access to high quality guidance services. A National eGuidance (<https://www.ug.dk/vejledning/>) is a digital guidance service which was launched in 2011 by the Danish Ministry of Education with a view to enhancing and complementing the already existing Youth Guidance Centres and Regional Guidance Centres. This online service can be reached by e-mail, chat, phone, text message or social media 7 days a week from morning to evening. eGuidance is for all citizens—young people and adults. The use of virtual communication presents new benefits when compared to more traditional guidance means, including increased flexibility and convenience for users. The services can be reached from all over the country regardless of the geographical location through personal computers or mobile devices all 7 days a week. The career practitioners have a specific in-house training to guarantee the consistency in the use of different channels within the service.

Asia

Career interventions in Asia are just starting to emerge in systematic ways. Asian countries experience the challenge of implementing career services while also coping with substantial cultural shifts currently occurring as a result of factors such as governments democratising, the influx of job opportunities due to other countries engaging in off-shoring, the rise of capitalism, and the questioning of long-held cultural values. Moreover, because many Asians adhere to a strong collectivistic orientation toward career development, career interventions emanating from individualistic worldviews may have little applicability in Asian countries. Certainly, theories, interventions, and decision-making models must acknowledge this important cultural distinction.

Currently in Japan there is an increase in unemployment attributed to the economic recession, changes in employees' work values and companies' attitudes

toward human resources (Tatsuno 2002). There are no professional career counsellors (in the Westernised sense of this term) in Japan offering services to public. In elementary schools, teachers have the responsibility of providing career education and each school must appoint a career education supervisor. Even though these roles exist, there is little to no career development training provided by those serving in these roles. A similar case exists in middle and high schools; teachers function as job placement officers. Thus, students are being advised and influenced by those with, at best, minimal training in career interventions. Although there are some graduate courses offered on the topic on career interventions, career consultants are not required to enroll in them (Tatsuno 2002).

Mizuno et al. (2017) note that the Ministry of Health, Labor and Welfare (MHLW) and the Ministry of Education, Culture, Sports, Science and Technology (MECSST) are responsible for career services in Japan and set the standards for career consultants. Candidates wishing to qualify as career consultants must complete a basic educational curriculum of 140 h addressing topics such as the social meaning of career counseling, career counseling skills, and ethics. Candidates must then pass a written exam, a skills demonstration exercise, and a screening interview. Every 5 years, career consultants must be re-certified; this involves an additional 38 h of training (8 h on subject-area knowledge and 30 h on skill-related areas).

Like Japan, the state of career services in China is embryonic. In China, major political shifts are occurring as the country turns from a Marxist perspective of career development toward a system in which the individual must now take responsibility for his or her career development. Training in career development theory and practice is just beginning to emerge (Zhang et al. 2002). The training programs that do exist have been influenced by groups such as NCDA (Facilitating Career Development training), the Psychological Assessment Company (PAC) and the Beisen Career Institute (BCI), which each provide training experiences for career practitioners (Jin 2017).

Career services are most visible in Taiwan within the school system. There is a call for counsellors to become more active with the adults and employee career development. Many corporate employers are establishing career management services within human resources departments. Chang (2002) stated that these programs instituted within human resources departments have a strong Western bias. Additionally, because of the preference for assessment in many Western models of career intervention, Taiwanese people are being administered U.S. instruments without being validated and standardised with that population.

Australia

Training opportunities, policies and standards for career counsellors are expanding in Australia, in part in response to calls from researchers for career counsellors to serve the career challenges adults experience in managing their careers effectively

(Flores et al. 2003). Historically, guidance has been located in schools with many students per counsellor ratio (as is the case in many other countries).

The Career Development Association of Australia (CDAA) represents Australia's largest community of career development practitioners, with members in every state and territory and across all sectors of the profession. The CDAA is a member of the [Career Industry Council of Australia \(CICA\)](#), which was supported by the Australian government and published the *Professional Standards for Australian Career Development Practitioners*. The Standards were first established in 2006 with the goals of defining practitioner benchmark standards for career practitioners training and practice. The Standards recognise two levels of career practitioners as follows: (a) Professional career development practitioners; and (b) Associate career development practitioner. Professional career development practitioners have a graduate certificate or a vocational graduate certificate and work in the career development field. Associate career development practitioners work in the career field and have earned a Certificate IV. Key to achieving credentialing is the development of core competencies in the following areas:

1. Career development theory
2. Labour market
3. Advanced communication skills
4. Ethical practice
5. Diversity
6. Information and resource management
7. Professional practice (cica.org.au)

Career practitioners continue growing in numbers and CICA does an outstanding job advancing the professionalisation of, and training opportunities for, career practitioners. Patton (2005) stated that “a small number of tertiary institutions have developed programs designed to specifically prepare career practitioners” (p. 224). This number has increased since 2005. In many ways, the development of career education in Australia reflects the same developments taking place in the UK and USA a few decades ago (Patton and McMahon 2002).

Career Counselling Training

Clearly, career services are being provided by a wide range of professionals to a wide range of clients across the lifespan. Although the countries and regions of the world discussed are not necessarily representative of the entire world, they do provide a description of where career services are being delivered (schools, universities, communities, and workplace settings) and by whom (e.g., teachers, career practitioners with minimal training, career practitioners with extensive training, practitioners with no formal training). It is a statement of the obvious to note that it is important that services in each geographic context be as responsive as possible to the career needs of persons living and working there. On some occasions, there may

be the need for constructing more unique services to address specific worker situations. Most times, career practitioners will need similar skill sets across settings and contexts. Typically, career services include providing labour market information, offering advice regarding specific training and employment opportunities, and conducting training in job search skills. Although these services are clearly useful, they represent a limited view of the career intervention process that may often translate into providing limited career assistance to students and clients. When these services comprise the totality of the career intervention process, little training is required. Familiarity with labour market resources as well as understanding and being able to communicate essential job search skills become the primary skill sets. Given the complexity of career development in the twenty-first century, however, broader and more sophisticated competencies are needed to adequately address the career needs of adults, adolescents, and children. The most obvious implication of this is the need to expand training programs to properly prepare practitioners.

Career counsellor training in the United States, for example, typically requires 2 years of graduate level education comprising extensive requirements in general counselling skills, multicultural counselling, testing and assessment, group counselling, as well as coursework in career development. The Council for the Accreditation of Counseling and Related Educational Programs (CACREP 2001), for instance, requires coursework in career development to include studies that provide an understanding of career development and related life factors, including all of the following:

- (a) Career development theories and decision-making models,
- (b) Career, avocational, educational, occupational and labour market information resources, visual and print media, computer-based career information systems, and other electronic career information systems,
- (c) Career development program planning, organization, implementation, administration, and evaluation,
- (d) Interrelationships among and between work, family, and other life roles and factors including the role of diversity and gender in career development,
- (e) Career and educational planning, placement, follow-up, and evaluation,
- (f) Assessment instruments and techniques that are relevant to career planning and decision making, and
- (g) Career counseling processes, techniques, and resources, including those applicable to specific populations. (p. 62)

In many ways, however, the career counselling specialty training in the CACREP Standards (which require 2 years of full-time post-graduate study to complete) serve as the “gold standard” for career counselling training. These Standards, as illustrated in Table 25.1, include a large set of training requirements:

When these standards are combined with the general counsellor preparation standards (which are also part of the training program), they arguably represent the most complete set of training guidelines for career practitioners in existence worldwide. Certainly, the CACREP standards for career counsellor training demonstrate substantial increases in the sophistication of career services since their inception nearly 100 years ago.

Table 25.1 The CACREP standards for career counseling specialty training

<i>Foundations</i>
A. Knowledge
1. Understands the history, philosophy, and trends in career counseling
2. Understands the settings for the practice of career counseling, including and public sector agencies and institutions
3. Understands policies, laws, and regulations relevant to career counseling and career development programs
4. Understands current ethical issues which affect the practice of career counseling and the use of computer-assisted career guidance systems
5. Understands professional organizations, competencies, and preparation standards that are relevant to the practice of career counseling and career development programs
B. Skills/practice
1. Demonstrates an ability to explain career development as an integral subset of human development
2. Demonstrates adherence to ethical codes and standards relevant to the profession of career counseling (e.g., NBCC NCDA, ACA)
<i>Assessment</i>
G. Knowledge
1. Understands assessment strategies for career development and career counseling programs
2. Understands bias in assessment and interpretation (including cultural and linguistic characteristics of the clients)
3. Understands assessment selection, ethical practices related to assessment, and its limitations
H. Skills/practice
1. Demonstrates an ability to administer, score, and report findings appropriately from career assessments instruments involving issues such as leisure interests, learning style, life roles, self-concept, career maturity, vocational identity, career indecision, work environment preference (e.g., work satisfaction), and other related life style/development issues
2. Demonstrates an ability to assess conditions of the work environment (such as tasks, expectations, norms, and qualities of the physical and social settings)
3. Demonstrates an ability to identify, select, organize, and provide or arrange for the career and educational components of agency or institutional appraisal service
<i>Research and evaluation</i>
I. Knowledge
1. Understands research and evaluation in career counseling and development
J. Skills/practice
1. Demonstrates utilization of various types of research and research designs appropriate to career counseling and development research
2. Demonstrates the ability to apply appropriate statistical procedures to career development research
3. Demonstrates the ability to utilize research findings related to the effectiveness of career counseling interventions and programs
4. Demonstrates the ability to evaluate the career development program and use the results to effect program enhancement by recommending institutional or agency improvements

(continued)

Table 25.1 (continued)*Program promotion, management, and implementation*

K. Knowl Understands organizational theories, including diagnosis, behaviour, planning, organizational communication, and management useful in implementing and administering career development programs

1. Understands the methods of forecasting, budgeting, planning, costing, policy analysis, resource allocation, and quality control

2. Understands leadership theories and approaches for evaluation and feedback, organizational change, decision-making, and conflict resolution

L. Skills/practice

1. Demonstrates the ability to plan, organize, and manage a comprehensive career resource centre

2. Demonstrates the ability to implement career development programs in collaboration with others

3. Demonstrates the ability to train others about the appropriate use of technology for career information and planning

4. Demonstrates the ability to provide effective supervision to career development facilitators at different levels of experience by:

(a) Knowledge of their role, competencies, and ethical standards,

(b) Determining their competence in each of the areas included in their certification,

(c) Further training them in competencies, including interpretation of assessment instruments, and

(d) Monitoring and mentoring their activities in support of the professional career counselor; and scheduling regular consultations for the purpose of reviewing their activities

5. Demonstrates the ability to initiate and implement a marketing and public relations campaign in behalf of career development activities and services

6. Demonstrates the ability to analyze future organizational needs and current level of employee skills and develop performance improvement training

Information resources and technology

M. Knowledge

1. Understands education, training, and employment trends; labour market information and resources that provide information about job tasks, functions, salaries, requirements and future outlooks related to broad occupational fields and individual occupations

2. Understand the resources and skills that clients utilize in life-work planning and management

3. Understands the community/professional resources available to assist clients in career planning, including job search

4. Understands methods of good use of computer-based career information delivery systems (CIDS) and computer-assisted career guidance systems (CACGS) to assist with career planning

5. Understands various computer-based guidance and information systems as well as services available on the internet and standards by which such systems are evaluated (e.g., NCDA, ACSCI)

6. Understands characteristics of clients that make them profit more or less from use of technology-driven systems

N. Skills/practice

1. Demonstrates the ability to manage career, educational, and personal-social information resources

2. Demonstrates the ability to evaluate and disseminate career and educational information

Adapted from <http://www.ncda.org/pdf/counsellingcompetencies.pdf>

The Evolution of Training Competencies Required for Career Practitioners

Regardless of national context, most agree that the contributions of Frank Parsons (1909) serve as the structural framework for conceptualising career development interventions and, thereby, Parsons' work also serves as a framework for training career practitioners. Parsons' tripartite emphasis on self-understanding, occupational knowledge, and "true reasoning" or decision-making guides the efforts of both theoreticians and practitioners internationally. During much of the last century, intervention strategies directed toward increasing self-understanding were grounded in a logical positivist orientation to science and resulted in interventions that relied primarily upon the use of standardised career assessments. This orientation objectified clients' characteristics and created an intervention model that some refer to as "test 'em and tell 'em". The strategy placed the career practitioner in the role of expert on multiple dimensions (e.g., with regard to identifying possible assessments, administering assessments, and interpreting assessments). Training for career interventions largely focused on preparing practitioners to use assessments in the career counselling process. Aptitude tests and interest inventories were the primary assessment domains.

The emergence of multicultural interventions and the rise of post-modern orientations have left their mark on career intervention strategies. The objectivist emphasis reflected in logical positivism is being supplemented by elevating subjectivity and perspectivity prized in post-modernism. Interventions focused on the subjective, or meaning-making process, in career interventions require the career practitioner to be a guide rather than an expert. Strategies are co-constructed between career practitioner and the client or student. Practitioners draw upon activities such as card sorts, career laddering techniques, values clarification activities, and narrative elaborations. Practitioner and client collaborate within the intervention process and the client is encouraged to take a significant role in selecting assessments and interpreting their results. Thus, this approach to career intervention requires career practitioners to be trained in counselling skills, the use of formal and informal assessments, and multicultural competencies.

The need to acquire occupational information was supported by the creation of information resources. Largely relying on print materials at first (e.g., career biographies, descriptions of occupational requirements) and then more recently computer-based career information delivery systems, these resources provide important information about the nature of work in specific occupations (e.g., training requirements, nature of the work, related occupations, etc.). Practitioners integrated information resources into the intervention process to help clients/students connect self-assessment data with occupational information. Performing this task effectively requires more than simply providing information. Practitioners need to be able to help students/clients turn occupational information into useful data that both inform and stimulate the career exploration process.

Super (1957) provided the impetus for expanding the conceptualisation of career development to include career choice processes rather than only career choice content. Super's developmental model emphasised longitudinal expressions of career development. Noting the need for developing readiness for career decision-making, Super and his colleagues articulated the importance of factors such as planning, exploring, information gathering, decision-making, and reality testing as being critical for preparing for key career decision-making moments. Adapting the work of the German developmental psychologist, Buhler (1933), Super described the developmental stages and tasks people tend to encounter as they construct their careers. Super also highlighted the fact that life roles interact and that work does not occur in isolation from other dimensions of human experience. Leisure, homemaking, partner, student, and citizen roles provide examples of other life roles that influence work options and vice versa. Super's developmental stages, tasks, and life role theory segments form the basis for many career guidance programs.

Decision-making models have long been central to the career intervention process. Helping students and clients make decisions has typically meant helping them learn a rational scientific problem-solving approach to career decision-making. Various decision-making models emphasise approaches such as benefit cost analysis, values weighting, and taking a rational approach to decision making. Increasingly, intuitive approaches to decision-making are being valued in career development. Practitioners realise that the complexity of career decision-making is difficult to contain within a model that employs only part of the person's experience (i.e., rational thought). Emotions, hunches, instincts, and intuitive sensing, once viewed as poor approaches to making decisions, are now recognised as useful and, more importantly for this chapter, teachable. Strategies such as keeping a journal, meditation, and imagery exercises each contribute to developing intuition, which can influence decision-making.

Regardless of chosen career development or decision theories one common challenge facing trainers, career practitioners and researchers is accepting the information society framework within which we now live and reframing the concepts and constructs of career services and related practices. Career practitioners and especially the trainers of career practitioners need a broader understanding and knowledge of their own conceptions of technology and social media as well as their competency for social media within career services. Kettunen (2017) presents an empirically derived conceptual framework for understanding career practitioners' general approaches to social media and competency for social media. Five identified general approaches encompass passive, information-centred, communication-centred, collaborative career exploration and co-careering approach. The concept of co-careering refers to the shared expertise and meaningful co-construction of career issues among community members as well as to the creating, maintaining and monitoring a reliable online presence within relevant communities. Maintaining an online presence also requires a practical understanding of the means and methods by which this presence is projected to others online. Career services have moved from private to the public sphere and from individual sessions to more collective engagements. Within this approach, the practitioner's role has expanded to include expertise in managing social spaces, and new technologies have accelerated this

process. Practitioners have evolved to agile content experts and network catalysts who participate in a variety of communities and develop meaningful connections among their constituents (Kettunen 2017).

According to Kettunen et al. (2015) success in developing competency for social media in career services is a dynamic combination of cognitive, social, emotional and ethical factors, all of which are interwoven. Trainers of career practitioners must be able to provide learning experiences that help practitioners to extend both their practical and conceptual understanding. That means exposing them to situations that will heighten their awareness of how they currently experience social media and how they might move towards a more advanced approach (Kettunen 2017).

In 2003, the International Association for Educational and Vocational Guidance (IAEVG) developed a set of international competencies for career practitioners and revised them in 2018. These competencies are very similar to those developed earlier by the National Career Development Association (NCDA) in the United States (the NCDA career counselling competencies were most recently updated in 2009) and the *Professional Standards for Australian Career Development Practitioners* mentioned previously. There are, however, some important distinctions between the two sets of competencies. The IAEVG competencies (IAEVG 2003, 2018) address (see Table 25.2) the important area of community capacity building, thereby noting the importance of collaboration between community partners to assess human capital and community needs, as well as developing plans to address the economic, social, educational, and employment goals of the community. The use of social media and competencies in working with immigrants, refugees were added in 2018. The NCDA competencies (NCDA 2009) (see Table 25.3) contain sections related to diversity and technology, both critical competency areas for all career practitioners. Thus, collectively, the two competency statements (i.e., IAEVG's and NCDA's) provide a comprehensive overview of the knowledge, skills, and awareness career practitioners need in the twenty-first century regardless of national context.

Given the fact that these two competency statements contain significant overlap, it is reasonable to expect that training experiences will expose students to the common areas within both competency statements, if not all areas comprising both statements. Where greater differences likely exist are in the strategies trainers use to help students acquire skills in these areas. For example, training experiences for those seeking the Global Career Development Facilitator credential (offered by the Center for Credentialing and Education in the United States) of the Certified Career Services Provider offered by the National Career Development Association as compared to those seeking a graduate degree in counselling will vary in depth and duration. What seems to be most true is that training is needed to provide career assistance to others in an ethical and professional manner. What is also true is that this training can occur in various formats. For instance, symposia can provide relatively brief opportunities for training in modular form across multiple years. With systematic planning for the symposia meetings and for the time period between symposia, trainers could expose students to the competency areas developed by IAEVG/NCDA. For the time between symposia meetings, training can continue via e-mail and video-conferencing.

Table 25.2 IAEVG
competency areas

- | |
|--|
| 1. Assessment: |
| 2. Educational guidance |
| 3. Career development |
| 4. Counselling |
| 5. Information management |
| 6. Consultation and coordination |
| 7. Research and evaluation |
| 8. Program and Service Delivery and Evaluation |
| 9. Community capacity building |
| 10. Placement |
| 11. Administration and management guidance services |
| 12. Skills for social marketing |
| 13. Working with immigrants, refugees and geographically displaced persons |

From <https://iaevg.com/Framework>

Table 25.3 NCDA
competency areas

- | |
|--|
| 1. Career development theory |
| 2. Individual and group counselling skills |
| 3. Individual/group assessment |
| 4. Information/resources |
| 5. Program promotion, management, and implementation |
| 6. Coaching, consultation, and performance improvement |
| 7. Diverse populations |
| 8. Supervision |
| 9. Ethical/legal issues |
| 10. Research/evaluation |
| 11. Technology |

From <http://www.ncda.org/pdf/counsellingcompetencies.pdf>

Other obvious options include using a distance education format that allows trainees to remain close to their place of residence. Technology for delivering training in this medium is now of outstanding quality and many university centres provide access to these opportunities. Additional opportunities such as podcasting provide even greater convenience allowing trainees to participate in training sessions via their personal computers. With options such as these, training can be provided to anyone with computer and Internet access.

Additional training opportunities can occur when universities establish international collaborative relationships. Numerous universities have developed such training opportunities providing international exchanges for students and faculty. Engaging in international collaborations effectively integrate global perspectives pertaining to career development theory and practice. Professional conferences provide multiple opportunities for training and development in career interventions. In this regard, it is worth noting that recently several professional associations have collaborated in co-sponsoring conference experiences highlighting the importance of global interactions in thinking and learning about career development.

Conclusion

Substantial variability exists regarding the training career practitioners receive. It can be argued that the variability needs to decrease by increasing the minimal training standards required for engaging in providing career services. Minimal training should include exposure to career development theory and practice, assessment, and listening skills. Technology, professional associations, and international collaborations provide important opportunities to advance training for career practitioners. Moreover, those engaged in training and practice of career practitioners need to use language more precisely to increase communication and advance research and practice. There seems to be no legitimate excuse today for situations in which those providing career services have no training in career interventions yet, too often, this is the case. Careers are much too complex to allow this situation to continue. In this regard, the CACREP standards for training career counsellors provide a reasonable goal for training guidelines worldwide.

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Chapter 26

Contextualisation as a Determining Factor for Career Counselling Throughout the World



Jacobus G. Maree

Abstract This chapter aims to put into perspective multiple seemingly unrelated occurrences since the beginning of the twentieth century and demonstrate the need for contextualisation, decontextualization, recontextualisation, and co-contextualisation as determining factors for career counselling throughout the world. It begins by briefly examining occupational changes globally since the beginning of the twentieth century, presents a brief overview of how theoretical and conceptual frameworks have developed since the time of Parsons and others and have influenced career counselling, contextualises the interplay between the four different waves in psychology, career counselling, the global economy, and the four industrial revolutions since the beginning of the twentieth century, highlight the personality traits associated with helping models in career counselling and relates contextual challenges to career counselling-related issues and concepts. Against this background, the need to rethink, reshape and adapt career theory and practice continually and contextually is elaborated. The design of a career development policy framework is based on 'best international practice' is demonstrated by explicating the South African example. The practical contextualisation of career counselling-related theory and practice is subsequently elaborated and exemplified (qualitatively and quantitatively).

Keywords Contextualisation · Decontextualisation · Recontextualisation · Co-contextualisation · Career counselling · Contextual challenges

Prelude

This chapter should be read bearing the following in mind: because the world of work is continually changing, career counselling can never be static. Its theory and practice accordingly require ongoing contextualisation, decontextualisation, recontextualisation, and co-contextualisation.

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To begin with, I agree with Winslade's (2011) contention that career counselling¹ should be contextualised² in a way that renders it useful to, for example, (a) a young woman from a private school in New York who wants to study art, (b) a bright 17-year-old woman in a public school in Zanzibar wanting to study medicine, (c) an inmate of a Calcutta prison wanting to study history, and (d) a young waiter in Lagos who wants to become a teacher. On a more collective level, an appropriately contextualised approach should be useful to, for example, (e) a group of citizens living in an affluent suburb in Paris, (f) people living in a middle-class Florence suburb, (g) a group of homeless people in a shelter outside Johannesburg, and (h) desperate immigrants housed in a tent camp on the outskirts of Padua. Bassot (2015), in her review of my publication *Counselling for career construction* (Maree 2013) argued that "it is difficult to imagine that any single approach could achieve [the aim of finding a contemporary, contextualised approach that will be of value to every person irrespective of colour, creed, financial situation or geographic location] ... in this respect perhaps the author simply gave himself an impossible task" (p. 370). My argument actually was that a way should be found to contextualise existing interventions so that all people are afforded the opportunity to receive state-of-the-art career counselling and not just a select few. Of course, providing contemporary career counselling in social contexts³ that differ from the contexts in which the counselling was initially developed can be worthwhile only if the counselling has value and relevance in these 'different' social contexts. Assessment and intervention should be adjusted, adapted, modified and/or altered in such a way that it is useful for its intended purpose. Put differently: the ultimate aim of career counselling should be to tailor existing interventions in such a way that the counselling speaks to factors such as people's ethnicity, age, beliefs, health status, intellectual standing, socioeconomic situation, and geographic location to ensure its usefulness for all individuals and communities. This should help career counsellors achieve the ideal of rendering a service that is inclusive rather than exclusive.

Goals of the Chapter

This chapter aims to put into perspective numerous seemingly unrelated occurrences in the field of career counselling since the beginning of the twentieth century and demonstrate the need for contextualisation in career counselling to promote the ideal of ensuring that all people have access to work opportunities. In the next

¹For convenience's sake, the term 'career counselling' here refers also to 'vocational guidance' and 'career education'. However, the differences between these terms are explained later in the chapter.

²For the purposes of this chapter, 'contextualisation' refers also to decontextualisation, recontextualisation, and co-contextualisation.

³The term 'social contexts' includes cultural, socioeconomic, and sociocultural contexts.

section, I first explain the meaning and use of the terms contextualisation, decontextualisation, recontextualisation, and co-contextualisation.

Concept Clarification

Contextualisation

All aspects of the specific context in which something occurs should be considered if one wishes to understand that ‘something’. Therefore, stating that a career counselling intervention needs to be contextualised means that everything relating to it should be considered in order to understand it better (Macmillan Dictionary [n.d.](#)) before it can be adapted and implemented. Given the paucity of indigenous theory development in career counselling and its associated practical intervention (Watson et al. [2015](#)), drawing on intervention styles and content developed in other countries to advance existing theoretical approaches in developing country contexts in particular is largely unavoidable.

In Africa, for instance, the notions of *Ubuntu* (the African emphasis on collective needs such as connection to others, humanity, compassion, and respect for others’ dignity), *iSinti* (the belief that people’s individual identity can be understood only in the collective identity) (Nussbaum et al. [2010](#)), and *Ujamaa* (the focus on the extended family, collectivism, and the view that people become people only because of others) (Cranford [1999](#); Ibdawoh and Dibua [2003](#)), and the strong adherence to the narrative tradition (story telling) subsumes individuals’ needs in the needs of the collective. These notions powerfully influence the behaviour of indigenous people, and it makes little sense to advance either career counselling theory or practice without considering the role of collectivism, the narrative tradition, as well as the interrelatedness and interdependence of people in their contexts.

Decontextualisation

Decontextualising something means removing it from its original context and introducing it into a different context (e.g. implementing a ‘positivist’ intervention strategy when attempting to advance a person’s career-life story or using a test developed in a European and North American context in a developing country context without due consideration of its usefulness in that context). Deliberating on and interpreting the function and value of any aspect of theory or practice in isolation from its original or usual context should therefore precede any decontextualisation (Collins Dictionary [n.d.](#); Psychology Dictionary [n.d.](#)).

Recontextualisation

Appropriate recontextualisation means using, placing, or interpreting a certain approach (to, for instance, career construction counselling or life design), assessment style or intervention in a novel or unfamiliar context to suggest a different interpretation of a given model or intervention. It involves also the examination and implementation of the outcomes of research to assess the applicability of intervention in a novel context. Doing so is key to ensuring that any intervention meets its intended purpose (The American Heritage Dictionary of the English language 2016). The Oxford Reference Dictionary (n.d.), too, states that recontextualisation relates to taking something from its original or usual context and resituating it in a foreign or unfamiliar setting or context (“making the familiar strange and the strange familiar”) (Novalis, in Oxford reference dictionary n.d., n.p.). Put differently, it amounts to using concepts associated with or developed in particular contexts in other contexts. Such concepts are reframed or represented in a different context in a way that changes the meaning they had in their original context.

Savickas (1995), for example, argued that intervening from a positivist (‘test-and-tell’) perspective to deal with people’s career indecision amounts to inadequate decontextualisation. Such a strategy does not yield optimal results, mainly because it leads to objectification and decontextualisation. In the process, people’s subjective experiences in regard to indecision, for example, are disregarded, and the spotlight is focused on their indecision rather than on themselves as people who are undecided (an approach advocated in career construction). By contrast, people’s career indecision should first be contextualised (an attempt should be made to elicit and understand people’s subjective career-stories), followed by recontextualising these stories (objectifying stories to open new perspectives and placing problematic areas in new stories as part of life design) and co-contextualising the stories (career counsellors and their clients together actualise clients’ identities by deciding on activities that may portray the new identities). Career counsellors can thereby actively assist clients devise plans to help them deal with potential problems.

Maree (2017a, b, c), Maree et al. (2017), and Watson (2013), and others have demonstrated the value of resituating and modifying life design counselling to enhance its usefulness in South African and African contexts as a whole and then applying it successfully in individual African contexts. Maree (2017b) has shown also how life design counselling can be adjusted for use in group-based African contexts.

Co-contextualisation

Thibault (2004) illustrates the idea of co-contextualisation by arguing that expressed language is accompanied by manual-brachial gestures, poses, looks, bodily movements, and facial expressions. These signs and symbols co-contextualise each other

in shaping conversations. Co-contextualisation does not imply that some modalities are merely linearly or simply added to others because they cannot be regarded as entirely separate and independent of each other. Rather, they are diverse “semiotic modalities co-evolved with each other on the phylogenetic timescale and co-developed and co-individuated on the ontogenetic scale. They also co-contextualise each other on the timescale of particular discursive activities and the textual productions that derive from these” (Thibault 2004, p. 192). From a practical perspective, therefore, accepting and advancing the notion and importance of adopting a not-knowing position (Anderson and Goolishian 1992) substantially enhances co-contextualisation. It is crucial always to make a conscious attempt to carefully observe, listen to, and refrain from ‘advising’ counselees.

Contextualising Changes in the World of Work Since the Beginning of the Twentieth Century⁴

Change and its impact on occupational and social contexts as well as on workers themselves stems largely from sweeping technological advances, more particularly, the ever-increasing need to disseminate information across the globe more quickly and more efficiently. While it is not denied that many workers still need assistance in dealing with a world of work characterised by ‘fixed’ hierarchical structures, many other workers have to contend with occupational contexts that are becoming increasingly less stable largely as a result of networking and connectivity (Gurri 2013). Many work-seekers today will find employment outside the traditional hierarchical structures, receiving little assistance in constructing their careers, shaping their identities, and designing successful lives; and many others will still be compelled to ‘fit’ into traditional, hierarchical, and top-down work structures. The latter group will be obliged to ‘toe the line’ and ‘respect’ set regulations but will also be confronted with the drivers of change, namely networking and connectivity. It is widely believed that people should consider themselves fortunate to have any work at all these days and that the twin goals of finding a sense of purpose and of meaning in their work-life are virtually unattainable in most occupational contexts. However, everyone deserves to be made aware of their ‘right’ to decent

work [that] helps all workers attain a sense of self-respect and dignity, experience freedom and security in the workplace, and ... [allows them] opportunity to choose and execute productive, meaningful and fulfilling work that will enable them to construct themselves adequately and without restrictions and make social contributions. (Di Fabio and Maree 2016, p. 9)

⁴All time frames in this section date back to the beginning of the twentieth century. Tables 26.1, 26.2 and 26.3 are designed to help readers see the overall pattern; the ‘big’ picture.

Contextualising the Relationship Between the Four Waves in Psychology, Career Counselling, the Global Economy, and the Fourth Industrial Revolution

The structure of a country's economy largely dictates the provision of career counselling in that country's specific social, economic, and cultural context⁵. According to Savickas (2006a, p. 5):

I keep repeating the vocational guidance model is a superb model for countries that are still organized the way we were from 1900 to 1950. I am not saying any of these models are no good; depends though on which type of economy you are working in.

The conventional one-on-one career counselling paradigm (vocational and career guidance) still works well in developing, less affluent, third-world contexts—of whom the vast majority have not as yet made the 'narrative turn' (articulating people's lives in words) (Hartung 2013; White and Epston 1990)—and also in affluent, predominantly first world contexts. However, viable, group-based career counselling models are required to meet the needs of the vast majority of people who currently have no access to career counselling.

The impact of successive economic waves on the world of work has been documented and discussed extensively (Guichard 2004, 2013; Hartung 2016; Maree 2016; Savickas 2011a, b, c, 2013a). These writers have noted that work environments are increasingly failing to provide 'safe spaces' for employees in the form of lifelong work contracts with employers. Short-term work assignments are today often the new 'normal'. Becoming employable instead of merely trying to find work, becoming career resilient, and becoming adaptable are the key to success in current work contexts. The increasing need for skilled workers (seen against the growth in the number of un-, low-, or inappropriately skilled workers) is cause for concern. Career counsellors should, accordingly, be able to identify what is referred to as "fifth wave-related changes" (Work 5.0) in occupational contexts for their clients if they wish to continue providing contemporary, relevant career counselling.

Developments in the twin fields of psychology and career counselling should at all times be contextualised by examining contemporary developments in the economics field and noting the impact of the different industrial revolutions (Table 26.1). Below, I contextualise the interplay between the different waves in psychology, career counselling, and the global economy since the beginning of the twentieth century and the effect on workers (Molitor 1999, 2000; Savickas 2006a, b).

⁵This is an exploratory attempt at generalising. While one timeframe may, for instance, apply to Europe and North America, other frames may apply to Nigeria, China, India, and Russia. Such time frames also often intersect.

Table 26.1 Horizontal (across disciplines) and vertical (over the past 120 years) overview of waves in the economy, the industry, psychology, and career counselling

Wave	Economy (Molitor 1999, 2000)	Industrial revolution (Salimi 2015)	Psychology (O'Hanlon 1994)	Attribute or trait emphasised in Savickas (2006a, b)	Helping model in career counselling (Savickas 2006a, b)	Associated career intervention (Savickas 2011b)
First	Agricultural wave	Mechanisation	Epistemological basis: psychodynamic theory	Character was articulated through self-expression and individual effort. People expected to 'be the same'; have the same values	Friendly volunteers	Informal help from 'friendly visitors'
Second	Industrial wave	Mass production	Epistemological basis: cognitive-behavioural theory and problem-focused therapies	Clients are seen as 'actors' ('objectivist', individual differences; how they resemble others approach). Little evidence of exploration, development, self-reflection	Vocational guidance	Provision of general information
Third	Service wave	Automation	Epistemological basis: existential-phenomenological, humanistic assumptions; narrative, postmodern, constructivist (storied) approach	Clients seen as agents differentiated by their readiness to deal with developmental tasks consistent with their particular life stages	Career education/ guidance	Provision of psychoeducational and psychosocial information and guidance/education
Fourth	Information communication technology wave	Robotisation	Epistemological basis: diversity or multicultural counselling theory. More contextual perspective. Reaction to European and North American models	Clients seen as authors of career identity. Adaptability, resilience, and creativity are paramount	Life and career counselling and life design	Career counselling (or "counselling for career construction"), self-construction, and life design

The Link Between the Four Helping Models in Career Counselling, the Four Economic Waves, and the Different Industrial Revolutions (Table 26.1)

Friendly volunteers (Savickas 2006a), the first helping model in career counselling, emerged during the first economic wave (agricultural wave, ca. 1850–1910), which corresponds to the first industrial revolution or Work 1 (The four industrial revolutions 2017) when workers worked the land to eke out a living. Most workers stayed on farms, and their jobs were largely an extension of their parents' jobs. Those who chose to leave the farms received help from 'friendly visitors'. Vocational guidance (Parsons 2005), the second helping model in career counselling, emerged during the second economic wave (industrial era, ca. 1900–1950, which corresponds to the second industrial revolution or Work 2.0 (mass production; Salimi 2015), when the mass production of commodities was the order of the day (Molitor 2000). Numerous 'jobs' were created and people flocked to the cities. The vocational counselling model developed during this wave.

The third helping model (career education or guidance) emerged during the third economic wave (the service wave, ca. 1940–1990, which corresponds to the third industrial revolution or Work 3.0 (automation, Salimi 2015) when the emphasis shifted to drawing on the skills of third party providers for specialised know-how. Clients were advised by counsellors on how to choose an occupation, develop a career in it, and move up the ladder in a corporation (Savickas 2000). Theories such as Holland's (1997) trait and factor theory and Super's (1955, 1957) theories are linked to this wave. The information communication technology wave (1990-) (the fourth economic wave, which corresponds to the fourth industrial revolution or Work 4.0 (robotisation, Salimi 2015) was bolstered by communication and computer technology and characterised by assignments, protean and boundaryless careers, dejobbing, interconnectedness, artificial intelligence, and the disappearance of customary jobs. The resultant uncertainty, insecurity, and loss of work identity prompted the emergence of career counselling intervention (the fourth helping model), including self- and career construction and life design (Guichard and Dumora 2010; Hartung 2007; Savickas 2006a, 2011a). Savickas' (2000, p. 59) assertion that "[c]areer must become more personal and self-directed to flourish in the postmodern information age" has particular significance in this regard.

The character traits (attributes) that guided the career counselling profession during each of the four waves (Table 26.1) need to be understood in order to understand why career construction emerged so strongly over roughly two decades as the theoretical base for career counselling practice.

***Contextualising the Personality Traits Highlighted
by the Associated Helping Models in Career Counselling
(Savickas 2006a, b; Maree and Morgan 2012)***

Particular approaches to and different traits emphasized in career counselling influence how the counselling is administered and help define the context in which this service is offered in given contexts and at given times. Contextualising contemporary career counselling models (such as career construction counselling and life design (Guichard 2009; Savickas 2011a; Savickas et al. 2009) as well as the notions of social constructionism and/or social constructivism is essential because of the great need to help people find a sense of purpose in an era when robots are taking the place of many workers and ‘work’ is losing its meaning.

In the first economic wave, personal character (including self-sufficiency, modesty, and thriftiness) was valued. Achievement in one’s work depended largely on self-expression and individual effort (Savickas 1993). In the second economic wave, taking their cue from empiricists, career counsellors developed ‘tests’ to measure personality traits such as interests and values ‘objectively’ in the belief that the tests would provide enough information to help clients choose appropriate life-long careers (Watson et al. 2011). In the third economic wave, making instead of finding meaning began to replace logical positivism with its emphasis on determining clients’ ‘objective’ personality traits (Hergenhahn 2005). Existential-humanistic approaches came to the fore (the so-called third force in psychology), and people’s uniqueness (as opposed to their resemblance to others) was emphasized (Hergenhahn 2005). The focus shifted towards focusing on subjectivity and on individuals themselves (Lent 1996), uncovering the idiosyncratic way in which clients construct reality, and facilitating moments of (therapeutic) forward movement (action) (Rogers 1942; Seligman 1994) to foster clients’ sense of self and of their career identity.

During the current fourth economic wave, identity is receiving more attention than personality, traits, and personality types. Making sense of clients’ career-lives and helping them acquire stable identities is becoming the main priority of career counsellors (Savickas 2010). To this end, clients are helped to know their career-life stories, obtain clear and stable pictures of themselves, and understand the dynamics of the changing world of work. Likewise, dynamic features of personality such as curiosity, creativity, conscientiousness, critical thinking, collaboration, and mental agility are stressed (Wolfe 2017). Creativity in particular is regarded as pivotal since it “differentiates human from machine” (Palti 2017, p. 4). Less emphasis is placed on “climbing the corporate ladder” in favour of becoming career adaptable and employable by engaging in lifelong learning. This demonstrates the progression premodernism→modernism→high modernism→postmodernism (Watson and Kuit 2007). Hence, the increased emphasis on using dialogue to construct, deconstruct,

and reconstruct 'old' career-life stories that are no longer useful and replacing them by co-constructing ideal career-life stories built on respect. It is clear from the background outlined here that career counselling researchers and practitioners need to rethink and adapt career theory and practice in line with changing socioeconomic circumstances so that the profession remains relevant.

The Need to Rethink, Adapt, and Reshape Career Theory and Practice Continually and Contextually

The use of tests and interventions developed for use in certain contexts and modifying and subsequently applying them uncritically in new or foreign contexts does not constitute 'best' or even acceptable practice. According to Watson (2013):

At best, much of career theory to date has been applicable to limited cultural, gender, and socioeconomic populations (whether this was their intention or not) and the generalization of these theories to other population groups has been a major concern expressed in the career literature (p. 3).

He concludes that career counselling theorists, researchers, and practitioners "need to critically deconstruct and reconstruct the career theories that may inform their practice [to] become active agents in assessing the relevance and generalisability of career theory to the non-career populations with whom they work". Career theory and practice should be adapted contextually to increase their applicability to the actualities and experiences of people's career-lives.

Contextualising Career Counselling Paradigms to Meet the Idiosyncratic Needs of People from Diverse Contexts: The Need to Start at National Education Policy Level

As stated earlier, while the economies of some countries (mostly countries with a European and North American worldview) display predominantly a post-industrial character, most third world, underdeveloped, and developing countries still display predominantly an industrial (and in some cases even a pre-industrial) character. At the same time, virtually all countries manifest both first world and third world social features. Career counselling in a country such as South Africa should accordingly make provision for contemporary, relevant career counselling paradigms and their associated intervention styles as well as more traditional paradigms and intervention styles to meet the specific needs of particular socioeconomic groups in the country.

The starting point in such instances is at the level of national education policy making, which is what is happening currently in South Africa (see below). To understand the rationale for the current career counselling developments in the basic

and higher education sectors in South Africa, it is necessary first to understand the threefold distinction that has been drawn in regard to career counselling interventions (Duarte 2017a, b; Guichard 2005, 2009; Savickas 2011b, 2015a, b).

Three Major Kinds of Career Counselling Interventions

The three theoretical and conceptual frameworks governing career counselling interventions are (a) vocational guidance (Holland 1997), (b) career education or guidance (Super 1957), and (c) life- and career construction and life design (Duarte 2017a, b; Savickas 2013b). Vocational guidance involves the provision of general information about the world of work, for instance, information about tertiary training institutions, about other training opportunities, about subject choices, and about what different careers entail. From a career education perspective, career counsellors provide information of a psychosocial and a psychoeducational kind. Psychosocial information includes information on the influence of clients' social context and environment and also on the influence of psychosocial factors on their functioning, especially with regard to their career choices. Psychoeducational information helps clients better understand and 'manage' their career choices. The first two types of information help clients reflect on their future careers (how careers can be chosen and pursued), bearing in mind particular requirements that are unique to their situation such as the choice of a school, a subject set, a field of study, or the construction of their self-concept and self-image (formerly referred to as 'personality profile'). Also at issue is the level of adaptability and resilience that will stand them in good stead in a future workplace. The third level of intervention, namely career counselling and life design, differs from the first two in that it involves psychological intervention, even though it also draws on the kind of information provided by the first two approaches. This level of intervention helps clients reconsider the role of work in their career-lives (instead of the other way around) and also helps them identify who they are, establish their adaptability, and elaborate on their central life themes.

The Design of a Career Development Policy Framework Based on 'Best International Practice': The South African 'Case'

The South African case is unique in the sense that South Africa has a large number of different social contexts associated with different socioeconomic strata (ranging from desperately poor to spectacularly affluent). The kind of career counselling that is offered differs from context to context. As is the case in many other parts of the world, traditional (person-environment fit) career counselling still predominates. Furthermore, only a handful of career counsellors have been trained in the newer

paradigm, that is, an integrative approach to career counselling, or have welcomed newer ideas such as career and self-construction and life design.

When approached for career counselling, I generally encounter the following categories of requests and caveats.

- (a) Involve large groups of people: Assess a large group of people but bear in mind that our budget is extremely limited. ‘Brief’ (positivist/objective) testing is therefore sought with a view to providing career counselling to as many people as possible within the shortest space of time.
- (b) Perform *pro bono* work: Provide career counselling but note that we have no budget whatsoever or access only to very limited funding. Maybe use learners’ school marks and administer a short ‘test’ that will shed light on their interests and help them choose subjects or careers.
- (c) Administer group-based, integrative career counselling: This kind of request is generally made by private schools (where funding is not a major issue, and career counselling is regarded as important enough to allocate sufficient time to it).
- (d) Individual (or small group) assessment: A few clients seek individual (or small group) assessment and typically insist on a ‘full’ assessment. The duration and cost are not an issue.

Sadly, ‘poorer’ people rarely receive any career counselling. Where a state-of-the-art, integrative approach is followed, people almost exclusively hail from affluent environments. Such assessments are offered only in a small number of urban centres.

The foregoing indicates an urgent need for the revamping of career counselling services across South Africa, involving also the development of a competency framework for career development practitioners.

Competency Framework for Career Development Practitioners in South Africa (FCDPSA) (DHET 2016): Contextualising and Drawing on Best Practice Internationally

Three related and (to some extent) overlapping types of career development practitioners (CDPs) are currently being promoted by the Competency Framework for Career Development Practitioners in South Africa (FCDPSA). After examining all available competency frameworks for CDPs, the Department of Higher Education and Training (DHET) (2016) contended that “[c]ompetency frameworks for career development practitioners [should] describe the knowledge and skills needed by all levels of the broad field of career development practitioners who work in diverse roles, in diverse settings with diverse client groups” (p. 17). The FCDPSA (DHET 2016) was subsequently developed, based on these frameworks. It is an exciting example of how best practice internationally can be contextualised for use in a local,

developing country context. The FCDPSA distinguishes between the following three levels of practitioners.

- (a) Entry level career development practitioners (ELCDPs) may collect, evaluate, and provide information (on, for instance, careers, financial aid, educational institutions, and learning programmes) to their clients and refer them to various sources of information.
- (b) Advanced level career development practitioners (ALCDPs), while meeting the requirements for ELCDPs, possess further knowledge and skills enabling them to provide career-related advice and guidance and apply career development theories and decision-making models at a higher level. This includes the administration of non-standardised assessments. ALCDPs also help clients with their career and study options and action plans, either in individual or group contexts.
- (c) Specialist career development practitioners (SCDPs) meet the requirements for ALCDPs as well as ELCDPs. They provide a professional, specialist service in one or more career development areas such as career counselling, executive coaching, career development research, CDP training, psychometric testing, and outplacement centre development. Typically, SCDPs are registered with professional bodies.

As can be seen in Table 26.2, the South Africa Career Development Association (SACDA) classification levels overlap broadly with the intervention levels associated with vocational guidance, career education, and life design.

Provision is thus made for vocational guidance, career guidance, and career counselling (and life design), depending on the specific context in which the service is delivered. SACDA's recently established *South African Journal of Career Development* strives to promote career development in South Africa and Africa as a whole and to ensure that the contextualisation of career development services is prioritised and meets basic scientific criteria.

Once policy matters have been settled, the focus can be shifted to policy implementation. In the next section, I discuss the four procedural, developmental, and strategic phases associated with the contextualisation of career counselling theory, assessment, and intervention in social, cultural, economic, sociocultural, and socio-economic contexts different to those in which the theory, assessment and intervention were originally developed and applied.

Table 26.2 Overlap between career counselling interventions and CDP interventions

Career counselling model	Associated intervention	Practitioner level
Vocational guidance	Providing general information	ELCDP
Career guidance or education	Providing psychoeducational and psychosocial information	ALCDP
Career counselling/life design	Enhancing people's sense of purpose and meaning	SCDP

Contextualisation of Career Counselling Theory and Assessment

The four phases associated with contextualisation occur at different levels as shown in Table 26.3 (Butler 1997, 2005; Thibault, 2004).

Contextualisation can occur ‘internally’ (within a context where a model originated) and also ‘externally’, that is, between the original context and the ‘target’ context (where the contextualised model will be applied). Table 26.3 is briefly explained below.

- (a) Paradigm: while the career construction paradigm, for instance. Has been shown to yield exceptional results in ‘typical’ Euro-North America-centric contexts, in others, the ‘differential’ approach still serves a useful purpose
- (b) Perspective, theory, or viewpoint: In an original model, experiences and observations can be reframed: from a positivist perspective, hurt, for instance, can be regarded as an inability to deal with the vicissitudes of life; from a self- and career construction perspective, it can be seen as an opportunity to survive and inspire others.
- (c) Content (subject matter): questions in assessment instruments can, for instance (after obtaining permission from the developer of the instrument), be changed to suit different clients and contexts better.
- (d) Implementation: the manner in which career counselling is provided differs from context to context. While only one session may be required in one context, more sessions may be required in other contexts. In addition, while a more narrative approach may be followed in certain contexts, a more ‘traditional’ style may be appropriate in others.

The next section should be read against the backdrop of general acceptance of qualitative approaches to career counselling. It is written from the premise that, during the past three decades, the ‘narrative turn’ in general and, more particularly, its fine-tuning in terms of life and career counselling and life design has gained global recognition and acknowledgement. Life design has been described as a contextually and culturally sensitive renovation in career counselling by Sharf (2013) and as indicative of the deconstruction of ‘grand’ career counselling theories in favour of localized, contextualised, cultural narratives (Watson 2006). How contextualisation can be done qualitatively is discussed below.

Using the Career Construction Interview (CCI)

Individual Contexts

Whereas the usefulness of the Career Construction Interview (CCI) (Savickas 2013a) has been written about in numerous publications, not nearly enough research has been conducted on the CCI in developing countries. Concerns have been raised

Table 26.3 Contextualization outline

		Four contextualisation phases				
		Context-ualise	Decontext-ualise	Recontext-ualise	Co-contextualise	
Original model, approach, and associated intervention	<i>Four levels of contextualization</i>	(a) Paradigm				Contextualised model, approach, and associated intervention (styles and techniques)
		(b) Perspectual				
		(c) Content				
		(d) Implementation				

about some ‘untested assumptions’ underlying the rationale of the interview and about ‘challenges’ associated with relating the responses to the five questions in the CCI with career counselling per se. Intensive training and extensive experience in the administration of the CCI will go a long way towards mediating these concerns. It should also be noted that the CCI is intended primarily for use in one-on-one contexts and is designed to enable counsellors to help individual clients deal with specific career counselling issues such as “I am a pharmacist but I do not find my job ‘rewarding’ now that I have a family of my own” or “I have enrolled for a degree in industrial engineering but I am no longer sure that that is what I want to do for the rest of my life”. In disadvantaged areas in particular, it is extremely important not to assume anything but to clarify and contextualise responses by clients to prevent misunderstanding, even more so when the career counsellor is not familiar with different clients’ mother tongues. In addition, career counsellors should try to understand the idiosyncratic cultural connotations of answers. Some clients may be afraid or hesitant and may try to ‘please’ the counsellor by responding in a ‘desired’ manner instead of providing ‘truthful’ answers. Interpreting body language can be particularly problematic—in some cultures it is, for instance, taboo to make eye contact with ‘elders’.

My own research (Maree 2011, 2012, 2013, 2016) on the use of the CCI and associated interventions in poor areas has shown that the following matters in particular are under-researched:

- (a) The second question in the CCI (Who are your role models?). While clients’ responses to this question indeed shed light on their self-concepts and central life goals and the personality traits they appreciate and want to emulate in others, Watson (2013) argued that the role of parents (clients often list parents as role models) can be limiting in contexts where children are expected to follow the example and advice of their parents. This is especially the case where the knowledge of parents is outdated, limited, and inaccurate.
- (b) The third of the five questions (What are your favourite magazines, etc.?) is not appropriate for use in disadvantaged contexts as magazines are largely unknown in deep rural and township areas. Enquiring about the reading of magazines in these areas (decontextualisation) consequently elicits unsatisfactory answers.
- (c) The fourth question (What is your favourite book?) can likewise elicit unsatisfactory answers. However, my research has shown that this problem can be overcome by, for instance, asking about clients’ favourite Bible or folk stories or stories they heard recounted by elders. In African communities, rapid urbanisation coupled with the perception that employment opportunities are plentiful in urban centres has disrupted family life. Gathering after supper, for example, to listen to stories told by elders occurs far less frequently these days due to time constraints, the fact that fathers (and sometimes mothers, too) work far away from their homes, and even the fact that children may no longer wish to listen to elders’ stories, opting rather to occupy themselves with their mobile communication media and social media websites.

Group-Based Contexts

As mentioned earlier, using the Career Construction Interview (Savickas 2011a) in group-based contexts in particular poses major challenges. The unstructured approach, coupled with the small number of questions, does not yield sufficient rich data to facilitate up-to-date, valid, reliable, and trustworthy career counselling (including the choice of schools and subjects). In addition, some of the questions are foreign to numerous learners—many of whom do not watch TV, never read magazines or books, and list their parents and other family members (guiding lines) as primary role models. (Children's acceptance of parents as role models in many African contexts is generally accepted.)

Using the fifth question (What are your earliest recollections?) in group contexts is virtually impossible. Over time, based on thousands of response sets and by comparing the responses of clients who were asked this question as well as an amended version of the last question (recontextualisation) such as “What were your three biggest challenges (‘problems’) when you were young?” or “What hurt you most when you were young and that you do not want others to suffer?”, I discovered that the amended questions yielded themes remarkably similar to the themes obtained when asking the question about the earliest recollections. The amended questions can be used in individual and group contexts. To facilitate life and career construction in group contexts, the Career Interest Profile (CIP) (Maree 2017d), a semi-structured questionnaire developed from a social constructionist viewpoint, was updated and aligned more closely with life and career construction theory to facilitate the elicitation of succinct and interpretable data—a strategy that has yielded excellent results (Cook and Maree 2016; Di Fabio and Maree 2013a, b). First conceptualized in 1986, the CIP has been updated over the years to stay abreast of the latest developments in contextualisation, decontextualisation, recontextualisation, and co-contextualisation. Recontextualisation, for instance, involves making numerous changes on a bi-yearly basis to ensure that the CIP remains relevant in South African social contexts in particular. The inputs of clients and research participants from different socioeconomic categories are used to ensure appropriate co-contextualisation. At a conceptual level, the pioneering work of Savickas (2011a) especially was drawn on to change some questions and restructure the content to better reflect the paradigmatic and conceptual framework of the instrument. The CIP now includes questions that relate to the differential approach (e.g. “Rank your five preferred career categories”), to the developmental approach (e.g. “What are your strong points and your areas for development, and why?”), to self-construction (e.g. “What were your biggest successes and disappointments (‘failures’), and why?”), and to career construction (“Whom did you admire when you were young and whom do you admire now, and why?”). The CIP thus integrates quantitative and qualitative assessment strategies to promote clients' reflections (and meta-reflections) on their career-life stories and, ultimately, to promote construction, deconstruction, reconstruction, and co-construction of these stories.

My research has likewise shown that the use of certain postmodern (qualitative or narrative) career assessment techniques is problematic in group contexts. While not denying that collages, for instance, can generate valuable information in many settings, in my experience, they often fail to yield ‘optimal’ results in group-based, resource-constrained contexts. Magazines (typically used to create collages) are a luxury in poor areas, and participants in research projects (who are unaccustomed to the use of clippings from magazines) therefore often struggle to express themselves satisfactorily using this medium. Such participants are generally ‘trapped’ at the lowest rung of the Maslowian ladder—authentic self-expression remains limited and writing their career-life stories is not meaningfully advanced by the use of collages.

Life Design Counselling

My recent research at the Good Work Foundation in Hazyview (a severely impoverished region of South Africa) revealed that while life design counselling (albeit in an adapted format) appears to work well in impoverished contexts, its impact on women is reduced by their subservient position in male-dominated communities. It made me realise again that unless I could change the gender-based attitudes of the men, any intervention of mine would yield less than satisfactory results. Furthermore, working in townships and severely disadvantaged areas, I often encounter reluctance (some would say ‘acquired inability’) to engage in activities aimed at promoting authentic career and self-construction. The stock response, “I want a job that will help me make money,” is indicative not only of thinking shaped by pre-industrial or industrial social and occupational contexts, but is also an indictment of the global failure to provide sustainable, decent work for all. This, despite policy-makers’ repeated expressions of solidarity with (and stated intentions to do something about) the dire situation of so many un- and underemployed people. My research has also confirmed Watson’s view (2013) that career adaptability should be interpreted contextually in contexts that differ from typical European and North American contexts. Suffice it to say that ‘adaptive behaviour’ in areas as depressed as Hazyview (where unemployment rates are staggeringly high, poverty is widespread, crime is spiralling out of control, and opportunities are almost non-existent) has a different meaning to that in European and North American countries.

The Need for Contextualisation of Quantitative Assessment

Mpofu et al. (2007, 2017) and Mpofu and Ortiz (2009) have shown that the nature and key features of tests and how they are used depend on the social contexts in which they are used. Moreover, they have shown that the appropriateness of how these tests are used (in conjunction with their assessment aims and processes) co-determine the quality of decisions based on data obtained by these tests in given social contexts (Mpofu and Ortiz 2009). Researchers who develop and adapt tests need to be acutely aware of the social contexts in which the tests will be administered, and they need also to ensure the integrity of the test-taking procedures (Ntinda et al. 2014).

The realisation is dawning that quantitative assessment does not always yield valid, reliable, and trustworthy results. For example, the contribution of Holland's Self-Directed Search (SDS) (Holland et al. 1994) towards bridging the gap between career counselling theory and practice seems uncertain. Much has been written about the sexist nature of the scale, the theory's failure to explain how personality develops and changes, and problems associated with some of the terms used (e.g. 'differentiation' and 'consistency'). The impact of the configuration of socioeconomic, sociocultural, contextual, and environmental influences has also not been considered fully. Super's (1957) developmental theory and approach, too, have been labelled as applicable only to the American middle class; the more so as the larger part of Super's theory was developed in North America based on mainly white, male samples. "His theory does not adequately address racial and discrimination issues nor does it address culturally-based perceptions of work amongst black South Africans" (Stead and Watson 1999, p. 42). Moreover, sociodemographic factors are not fully taken into account. Consequently, little explanation is given of why discrimination exists in the workplace, why women are often 'forced' into career patterns that are either the same or different from those of men, and why there are major differences in the career patterns of individuals from lower socioeconomic groupings (Stead and Watson 2002).

The following 'case study' demonstrates the need for contextualising, decontextualising, recontextualising, and co-contextualising in quantitative research (in disadvantaged contexts in particular).

The Bar-On Emotional Quotient Inventory (the Bar-On EQⁱ, Bar-On and Parker 2000). In 1994, some colleagues and I (Maree and Eiselen 2007) involved approximately 800 learners in Grades 9 and 11 in a seriously disadvantaged region of South Africa (the Limpopo Province) in research aimed at standardizing the Bar-On Emotional Quotient Inventory for use in South Africa. The test was also translated into Pedi and administered along with the English version. Spearman's rank correlation indicated positive correlation in all but one of the participants' responses between the English and Pedi versions. Curiously, though, the first question ("I enjoy having fun") revealed a statistically strong (-.458) negative correlation. Upon revisiting the research venues—on the basis of in-depth interviewing of the respondents (individual as well as focus group interviews)—we soon learnt that in the region where the research was conducted, the question was understood differently to its meaning in English—namely as "I enjoy making fun of people", which was considered a negative attribute and consequently unacceptable.

Furthermore, exploratory factor analysis did not at all support the factor structure found in North American samples. It seemed that the manner in which emotional intelligence had been conceptualised did not translate satisfactorily in the research context, which was based on collectivism and rejection of individualism. Clearly, the imported version of the Bar-On EQⁱ (Bar-On and Parker 2000) would have to be used with extreme caution in that region but probably also in disadvantaged regions in general. We concurred with Pedersen et al. (1989) contention that since clients' environments are often multifaceted and diverse, any kind of assessment or adaptation of assessment instruments should comprise assessment of clients as well as their unique social contexts or environments.

The development of the Career Adapt-Abilities Scale (CAAS) (Savickas and Porfeli 2012): exemplifying 'best practice'. The development of the Career Adapt-Abilities Scale (CAAS) represents 'best practice' in test development. Put briefly, a Career Adaptability International Research Group consisting of 30 members from 21 countries focused on one of two meta-competencies for twenty-first century career construction, namely adaptability. Each of the countries "standardised" the USA version of the CAAS for use in its own specific context, while by and large retaining the original structure of the test. An international version of the instrument (based on a large international sample that also comprised the individual samples of the countries involved in the study) is available on the web. In this instance, contextualisation, decontextualisation, recontextualisation, and co-contextualisation of the original instrument occurred in a completely natural, seamless manner, setting a benchmark for test development anywhere in the world.

Conclusion

The chapter endeavoured to demonstrate the importance of relating contextual challenges to career counselling issues and concepts. Sharf (2013, p. 17) asserted that "[n]o career theories of development have been formulated to apply specifically to one culture or another. However, research has been done on the applicability of particular career development theories to specific cultural groups." I concur with Watson (2013) that the first part of Sharf's statement is particularly problematic. While it may not have been the intention of theorists to formulate theories to apply to specific cultures or contexts, in practice this is exactly what happened. It is a truism that what works well in one part of the world may not work at all elsewhere because of the huge socioeconomic and cultural disparities.

Rendering career counselling services to people is a complex and multidimensional undertaking. Contextualisation is especially important in collectivist, third world (developing country) contexts, where people (either the majority of people or members of minority groups) have been subjugated or colonised for decades and longer, where the culture often differs widely from the contexts in which theories and practice were initially developed, and where authentic self- and career construction has been stymied. In promoting the rigour (validity, reliability, and trustworthiness) of any assessment and intervention technique or strategy, it is therefore important to contextualise conceptual frameworks and associated intervention strategies carefully before using them in contexts that differ from the original contexts in and for which they were originally conceptualised.

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Part IV
Testing, Assessment and Evaluation
in Educational and Vocational Guidance

Chapter 27

International Career Assessment Using the Occupational Information Network (O*NET)



Alexis Hanna, Christina Gregory, Phil M. Lewis, and James Rounds

Abstract The Occupational Information Network (O*NET) is a premier source of occupational information. O*NET is an open-source online platform that contains data for almost all occupations in the United States. These data are continually collected, disseminated, and updated. O*NET data and products are used for many purposes, from research to career development to public policy. Recently, international users have begun to develop similar platforms based on O*NET's model for their own countries. O*NET supports several possibilities for international career assessment and cross cultural research. This chapter provides an overview of the history and structure of O*NET, as well as the O*NET products and database available for use. The chapter then details career assessment examples and opportunities both within the United States and internationally. Lastly, this chapter outlines challenges and considerations in using O*NET internationally and potential outlets and possibilities for international career assessment with O*NET in the future.

Keywords Occupational information network · O*NET · International career assessment · Crosscultural research

The Dictionary of Occupational Titles (DOT), the United States' first occupational classification system, was developed in response to the Great Depression era in the 1930s. The United States Department of Labor was charged with developing the DOT in response to the Wagner-Peyser Act, which established Employment Services nationwide through a network of public employment offices (Droege 1988; National

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Center for O*NET Development 2015; USDOL 1991). Occupational analysts, located in field offices across the United States, conducted work site visits to collect occupational information on thousands of jobs. The analysts then combined this worker and job information into a standardised occupational system to aid efforts in job placement, career counselling, and labor market services. With over 12,000 jobs listed in the DOT, the system underwent multiple updates from 1939 to the early 1990s. In the late 1990s, the DOT was replaced with the Occupational Information Network to remedy the outdated system's inherent flaws (Peterson and Sager 2010).

The nation's premier source for occupational information, the Occupational Information Network (hereafter, O*NET), collects and disseminates data on almost 1000 occupations across the entire U.S. economy. Data are free of charge to users, updated routinely, and collected on hundreds of standardised and occupation-specific descriptors. O*NET data are used by job seekers, career counsellors, students, employers, and millions of other users each year to learn about training needs, jobs, and necessary skills to remain competitive in the workforce. Additionally, O*NET has developed multiple applications to help users explore careers and find jobs. These include the O*NET database, O*NET websites, and O*NET career assessment tools (assessing interests, abilities, and work values).

Researchers, government agencies, and policy makers employ these products to examine a multitude of workforce development needs, such as analyses of skills gaps, identification of new and emerging occupations, and development of competency models, among others. O*NET provides web services to enable developers to integrate O*NET data and related products directly into their websites or web applications. As a result of this readily available and rich source of occupational data, both national and international users make use of O*NET for occupational research, career assessment, and development. Additionally, international users actively develop similar occupational systems and related measures modeled after O*NET for use in their countries. However, when establishing occupational systems across different cultures, cross-cultural issues related to the application of these types of systems can arise.

The present chapter discusses the impact of the United States' premier source of occupational information, O*NET, on international career assessment. First, we consider the development of O*NET and the current status of O*NET career assessment, providing a brief description of O*NET's structure and available data and products used for career assessment. Next, we examine O*NET's content in relation to international career assessment: cross-cultural research, international career models based on O*NET, and international research using O*NET data and products. We finish by exploring the limitations and next steps of international career assessment using O*NET data and products.

History of O*NET

Sponsored by the U.S. Department of Labor (DOL), O*NET was developed to replace the outdated Dictionary of Occupational Titles (DOT) using a standardised common language of work. The DOT was first published in 1939 and last updated in 1991. It contained more than 12,000 occupations or “jobs” that were difficult to maintain and update to reflect the frequently changing world of work. Additionally, the DOT was disproportionately weighted to include more blue-collar and manufacturing occupations, rather than a more rounded representation of the entire work economy. The DOT was an integral part of workforce development, used by both government and non-government institutions as a primary source of occupational information. However, as discussed by Peterson and Sager (2010), the Department of Labor (DOL) realised the inherent flaws in the DOT and sought to remedy these flaws for the changing work economy. In the early 1990s, the DOL supported a thorough review of the DOT and welcomed recommendations for an improved system (APDOT 1993; National Research Council 1980). It was the result of these recommendations that led to the development of the Occupational Information Network.

First released in 1998 (National Center for O*NET Development 2002), the earliest electronic version of O*NET was O*NET 98. This initial database was coined the “Analyst Database” because the conversion of the DOT occupational database into the online structure was performed by occupational analysts. Since 1998, the core O*NET database has undergone major transformations, updates, and improvements. New data collection methods, new types of data, and new modes of data dissemination have been developed. The fluidity of the O*NET program is based on multi-method data collection methodology. These continuous improvements have overcome the DOT’s shortcomings. Since its advent nearly two decades ago, the O*NET program has advanced as the premier source of occupational information within the United States (see Rivkin et al. 2017 for a full report).

Ongoing Development

Ongoing development of the O*NET project has included numerous data enhancements through the years, something the DOT was not able to achieve. The organic nature of O*NET data is precisely what the DOT was lacking. Continuous data enhancements and the program’s high responsiveness to the needs of its users are the core components of development that keep O*NET data fresh and current.

Recent enhancements to the O*NET program include new work activity statements that support career exploration, skills gap analysis, and resume building, to name a few (Hansen et al. 2014). Tools and Technology (T2) information has been

added for nearly 1000 occupations, providing technology and software skills as well as information on machines, equipment and tools used in each occupation. (Dierdorff et al. 2006; Morris 2015; National Center for O*NET Development 2011). These data can be used for workforce development, training, and career guidance. Hot technologies, or technology requirements frequently included in employer job postings, are uniquely identified with a fire icon within O*NET websites to enable customers to learn which software skills are in demand in the United States economy (Lewis and Norton 2016). To date, there are 68,000 T2 objects linked to occupations within the O*NET database.

Alternate titles are gathered for each occupation across the U.S. economy as well. These alternate titles are used in keyword searches for several DOL applications, in addition to public and private keyword searches used through O*NET's Web Services. (Gregory and Lewis 2015; for specific information on the keyword search, see Morris 2017a). Alternate titles data are gathered to provide "lay titles" or job titles for occupations (i.e., what these occupations are often called in the field) to leave customers with a better understanding of the occupations and to simplify the users' search for occupations. Sources of this information include job incumbents, customers, occupational experts, professional associations, and real-time labor market sources (e.g., employer job postings and other Big Data sources). Currently, there are over 59,000 alternate titles within the O*NET database.

Structure of O*NET

The Office of Management and Budget (OMB) mandates that all government agencies collect occupation-related information via a classification compatible with the Standard Occupational Classification (SOC; Office of Management and Budget 2000, 2010). The structure of the SOC system includes four levels of aggregation as follows: 23 major groups; 96 minor groups; 449 broad occupations; and 821 detailed occupations. All SOC occupations are assigned a six-digit code. The first and second digits represent the major group; the third digit represents the minor group; the fourth and fifth digits represent the broad occupation; and the sixth digit represents the detailed occupation. From a customer perspective, this common classification allows movement both across and within various information systems or data products with greater ease. Since O*NET occupations are classified according to this system, the data can be linked or cross-walked to other sources, such as the Census Bureau (www.census.gov), the Center for Disease Control (CDC; www.cdc.gov), or the Bureau of Labor Statistics (BLS; www.bls.gov). Occupations can be grouped into the different levels of the SOC system, which includes major industry-level groupings down to individual occupations (Fig. 27.1).

The O*NET-SOC is based on the SOC system (Office of Management and Budget 2010). In the O*NET-SOC taxonomy (National Center for O*NET Development 2006, 2009, 2010), an occupation that is directly adopted from the SOC system is assigned the six-digit SOC code, along with a .00 extension. If directly adopted from

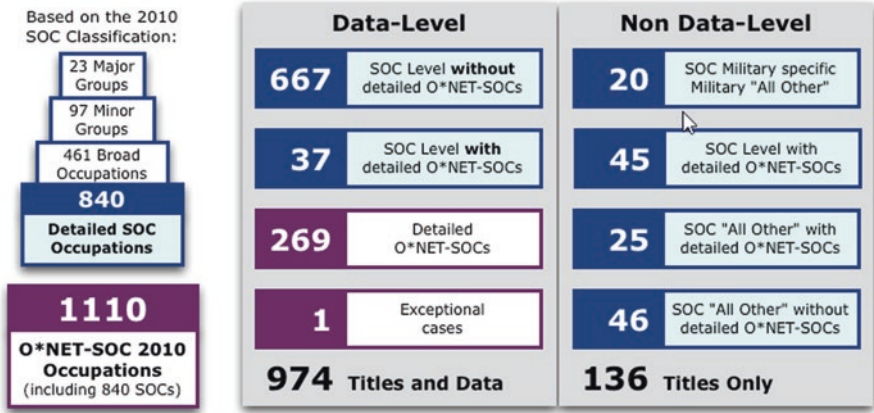


Fig. 27.1 O*NET-SOC Taxonomy. (Figure adapted from the O*NET Resource Center)

the SOC, the SOC title and definition are also used. Hereafter, these are referred to as SOC-level occupations. In some cases, the O*NET-SOC describes occupations at a more detailed level than does the SOC to reflect needed occupational specificity. If the O*NET-SOC occupation is more detailed than the original SOC detailed occupation, it is assigned the six-digit SOC code from which it originated, along with a two-digit extension starting with .01, then .02, .03 and so on, depending on the number of detailed O*NET-SOC occupations linked to the particular SOC detailed occupation. Thus, the O*NET-SOC taxonomy not only represents the SOC structure, but also reflects changes occurring in the world of work due to new technologies, business practices, and changes in the organization of work.

To illustrate a source for some of these more detailed occupations, the SOC contains groupings of "All Other" designations for occupations that have a multitude of sub-occupations. For instance, there are many different types of engineers. The most common types of engineers (i.e., mechanical, chemical, etc.) are assigned their own SOC code, but more specific engineers not linked elsewhere in the taxonomy are grouped together under one "All Other" Engineer code. O*NET has separated some of the occupations grouped under "All Other" designations and collected data for them separately. These occupations are given an O*NET-SOC code, which consists of a SOC stem followed by a two-digit extension starting with .01, .02, etc. to distinguish them as more detailed than the SOC. These additional sources of data are beneficial because they go beyond what may be found through other agencies. Using the O*NET-SOC taxonomy, researchers can decide which level of specificity is most appropriate for their purposes.

Each time a new SOC is released, the O*NET-SOC taxonomy is updated to reflect the revised SOC. Additionally, to keep up with the changing world of work, the O*NET program continuously monitors and evaluates occupations during the course of sampling and data collection. The program makes modifications, additions, and/or removals based on the collected data and emerging occupations. For exam-

ple, New and Emerging (N&E) occupations have been periodically identified, evaluated, and incorporated into the O*NET-SOC taxonomy to enable O*NET's responsiveness to the needs of its users (National Center for O*NET Development 2006). N&E occupations represent occupations that are born out of high growth or in-demand industries and not adequately covered by the SOC taxonomy. Healthcare occupations and occupations that stemmed out of the green economy are examples of recent in-demand industries that prompted the inclusion of N&E occupations to the taxonomy (Dierdorff et al. 2009; Dierdorff et al. 2011; National Center for O*NET Development 2009). There are currently 152 occupations in the O*NET-SOC taxonomy that are identified as N&E (National Center for O*NET Development 2010). The addition of N&E occupations to the O*NET-SOC taxonomy reflects O*NET's ability to incorporate on-going technology, social, business, and government developments in workforce needs.

Available Data

The conceptual foundation of O*NET data is described through the O*NET Content Model. This framework for O*NET information was developed through job and organisational analysis research (Peterson et al. 1995, 1997, 2001). The Content Model is structured by cross-occupational and occupation-specific descriptors organised into six domains: worker characteristics, worker requirements, experience requirements, occupational requirements, workforce characteristics, and occupation-specific information. The O*NET program collects data on the majority of the Content Model descriptors for each data-level occupation. The Content Model is periodically updated to reflect changes in the world of work and to incorporate new types and sources of data. For example, data such as technology skills, detailed work activities, and alternate titles have been added in recent years to provide more cross-occupational and occupation-specific data (Dierdorff et al. 2006; Hansen et al. 2014; Gregory and Lewis 2015; National Center for O*NET Development 2015). See Peterson and Sager (2010) for a complete discussion and review of the development of the O*NET Content Model. Table 27.1 below provides a description of each of the components of the Content Model (Fig. 27.2).

Data Collection

O*NET uses a multi-method data collection methodology to collect 255+ descriptors for each of the occupations in the O*NET-SOC taxonomy. Data are collected from job incumbents, occupational experts, and job analysts (Fleisher and Tsacoumis 2012a, b; McCloy et al. 1999; National Center for O*NET Development 2015; Reeder and Tsacoumis 2015; Rounds et al. 2008, 2012, 2013). Additionally, other

Table 27.1 Content model elements

Content model descriptor	Definition
Worker characteristics	Enduring characteristics that may influence both performance and the capacity to acquire knowledge and skills required for effective work performance
Worker requirements	Descriptors referring to work-related attributes acquired and/or developed through experience and education
Experience requirements	Requirements related to previous work activities and explicitly linked to certain types of work activities
Occupational requirements	A comprehensive set of variables or detailed elements that describe what various occupations require
Workforce characteristics	Variables that define and describe the general characteristics of occupations that may influence occupational requirements.
Occupational-specific information	Variables or other content model elements of selected or specific occupations

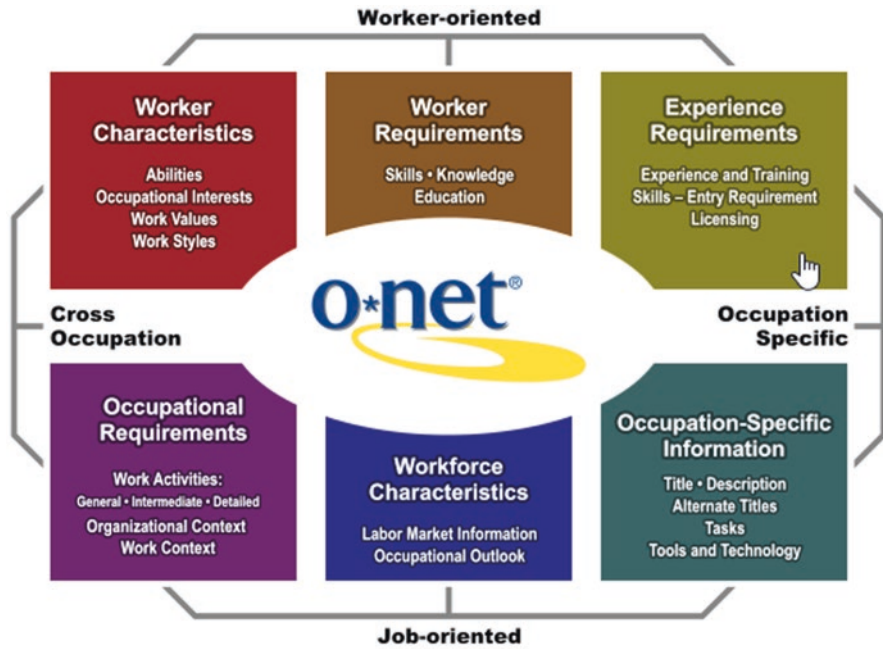


Fig. 27.2 O*NET content model. (Figure adapted from the O*NET Resource Center)

sources of data include government programs, research, transactional data, employer job postings, and customer input. See Table 27.2 for a summary of the number of descriptors and scales in the O*NET data collection program. Descriptors from each of the six Content Model domains are collected, except for the Workforce Characteristics domain. Data are included for this domain in the O*NET database;

Table 27.2 O*NET data collection descriptors

Data collection questionnaire	# of descriptors	# of scales per descriptor	Total # of scales	Data source
Skills	35	2	70	Analysts
Knowledge	33	2	66	Job incumbents
Work styles	16	1	16	Job incumbents
Education and training	5	1	5	Job incumbents
Generalised work activities	41	2	82	Job incumbents
Detailed work activities	Varies	1	Varies	Analysts
Intermediate work activities	Varies	1	Varies	Analysts
Alternate titles	Varies	1	Varies	Multiple
Interests	9	2	18	Analysts
T2 s	Varies	1	Varies	Multiple
Work values	6	1	6	Analysts
Work context	57	1	57	Job incumbents
Abilities	52	2	104	Analysts
Tasks	Varies	2	Varies	Job incumbents
Total (excluding “varies”)	255	NA	400	NA

however, its content is sourced from BLS, state employment security agencies, and other agencies.

Each occupation has a profile of information that is regularly updated. The O*NET Data Collection Program makes updates on a quarterly basis (i.e., every 3 months) via multiple methods, with a primary update occurring in the third quarter. In a primary update, the majority of information for an occupation is updated: tasks, knowledge, skills, abilities, generalised work activities, work context, work styles, education, job zone, alternate titles, training and work experience, and detailed work activities. Quarterly updates include a subset of the data categories above (e.g., alternate titles and T2s). Figure 27.3 below illustrates the overview of occupational updates from 2003 to 2017. On average, 614 O*NET occupations were updated annually from 2003 to 2016. To date, 723 occupations have undergone a primary update more than one time (see www.onetcenter.org/taxonomy/2010/updated_mult.html).

O*NET Occupation Update Summary

Fig. 27.3 O*NET occupational update summary. (Figure adapted from the O*NET Resource Center)

O*NET Products and Users

Several O*NET products and websites have been developed since the inception of the O*NET program. All products and websites undergo continuous improvements to stay in tune with the changing world of work and the changing needs of its users. Some of the most recent developments to O*NET products are mentioned next. Related to career assessment, a mobile version of the Interest Profiler has been developed for use on mobile devices (the Interest Profiler is a family of self-assessment career exploration tools that can help clients discover the type of work activities and occupations that they would like and find exciting). Emojis have been added as anchors within career assessment tools (Rounds et al. 2016b), a new “browse careers by interests” feature has been added in O*NET websites, and a new work activities hierarchy (Hansen et al. 2014) has been developed so that users can explore occupations using skills they already have. This new hierarchy can help displaced workers and individuals seeking information about high-growth and emerging occupations. Below we describe the core websites and products used for career exploration that were developed by the O*NET program.

*O*NET Database*

The O*NET Data Collection Program collects data on 974 occupations, with over 255 descriptor ratings for each occupation. The information is stored within the O*NET database that is updated quarterly with a primary update occurring in the third quarter of every year (see: <https://www.onetcenter.org/database.html?p=3>).

Recent improvements to the structure of the database allow for easy incorporation of the O*NET database into developers' and customers' products, services, and research. In addition to downloading the entire core database as a zip file, O*NET provides individual database files for download, such as detailed knowledge, skills, and ability ratings, task information, work activities, T2s, and alternate titles data. Individual files for each type of descriptor are available for download in five formats: Microsoft Excel, tab-delimited text files, MySQL, SQL Server, and Oracle. Archived past releases of the O*NET Database are also available (see: https://www.onetcenter.org/db_releases.html).

*O*NET Websites*

Nearly 25,000 private and public web sites link to O*NET websites. In addition to O*NET's Web Services, the development of websites geared toward specific populations have allowed the O*NET program to reach more and more users. There were over 50 million site visits in 2016 alone, with over 1757 million hits across 154 countries. See Table 27.3 below for a list of the top 25 international countries visiting O*NET sites. O*NET OnLine (www.onetonline.org) is the O*NET Program's multipurpose website. It is the most comprehensive of all websites and was developed to support DOL initiatives, developers, and researchers, providing access to all users of O*NET data. The O*NET Resource Center (www.onetcenter.org) houses information about O*NET's structure (taxonomy, Content Model), and O*NET products (career assessment tools, questionnaires, reports and documents), and also maintains a Developer's Corner to access the O*NET database and related files, and data collection information (update summaries and data archives). O*NET Code Connector (www.onetcodeconnector.org) is a resource for workforce professionals to align the correct O*NET-SOC codes for job orders, job applicants, and UI claimants.

The most recent websites developed by O*NET—My Next Move, My Next Move for Veterans, and Mi Proximo Paso—have been developed for more targeted

Table 27.3 Top international countries visiting O*NET sites

Countries		
1. Canada	10. Taiwan	19. Italy
2. United Kingdom	11. Sweden	20. Hong Kong
3. Puerto Rico	12. South Africa	21. Malaysia
4. Germany	13. New Zealand	22. India
5. Australia	14. South Korea	23. Guam
6. Netherlands	15. France	24. Iran
7. Singapore	16. China	25. Ireland
8. Spain	17. Turkey	
9. Japan	18. Switzerland	

groups, illustrating O*NET's continued ability to adapt to and best serve the needs of specific populations (see Desk Aids for each site here: <https://www.onetcenter.org/research.html?c=Desk>). My Next Move (www.mynextmove.org) was developed to simplify the rich source of information found on O*NET OnLine and was developed for job seekers, students, and other adults with lower literacy and computer skills to assist them in managing their career plans. My Next Move allows for easy access to career exploration tools, education and training programs, and job posts. The career reports are simplified to include the top knowledge, skills, and abilities needed to perform the work for each career. My Next Move also provides a link to the web-based version of O*NET's Interest Profiler tool that provides information on users' vocational interests. Finally, the site incorporates direct links to training opportunities, credentials, apprenticeships, job postings, and career videos.

As a spin-off of My Next Move, O*NET also developed Mi Proximo Paso (www.miproximopaso.org) and My Next Move for Veterans (www.mynextmove.org/vets/). Both sites contain the same structure of information as My Next Move, but for a more targeted audience. Mi Proximo Paso is a Spanish-version of My Next Move. Due to the rise in the Spanish-speaking population in the United States and the demand for Spanish-translated career reports and assessment, O*NET developed Mi Proximo Paso to allow the Spanish-speaking population to use O*NET data and tools. A Spanish-translated version of the web-based O*NET Interest Profiler is also available on this site. Importantly, both Mi Proximo Paso and the Spanish-translated version of the web-based O*NET Interest Profiler were translated and verified by a translation team instead of automated translation tools. The translation team used a forward and two-step back translation process to ensure accuracy (RTI International, personal communication, January 11, 2018). Similarly, My Next Move for Veterans is a replica of My Next Move; however, the focus is on assisting veterans returning to civilian jobs. My Next Move for Veterans enables these veterans to use their military experience to explore civilian careers by enabling access to 900+ career reports, looking at apprenticeships and training, searching job openings, and finding careers through military transition searches using military job titles. The National Center for O*NET Development maintains the O*NET Military Transition Search which leverages multiple sources of military to career information (Morris 2017b).

O*NET Web Services

O*NET Web Services was made available by the O*NET program so that users could easily integrate O*NET tools into their own websites or applications. Specifically, O*NET Web Services enables easy integration of the following tools and products: Keyword Search, My Next Move Career Reports, Summary and Detailed Occupation Reports, Military Search, Spanish Keyword Search, and the Interest Profiler.

Over 1220 customers have active O*NET Web Services accounts, including both public and private sector users in national and international settings.

O*NET Questionnaires

The O*NET program provides data collection questionnaires in both English and Spanish. Each questionnaire is provided in both Microsoft Office and PDF; also included are data collection procedures. See: <https://www.onetcenter.org/questionnaires.html#generic> for detailed information.

The O*NET questionnaires are available in general, customisable formats, allowing users to insert company names and logos. The availability of these questionnaires also gives customers the ability to conduct localised job analyses and comparative studies.

O*NET Crosswalks

The O*NET Program offers several crosswalks to search and locate O*NET-SOC occupations on multiple occupational classification systems. Crosswalks are important tools for promoting the cross-integration of products and services between large organisations and initiatives. Available crosswalk systems include the Classification of Instructional Programs (CIP), Dictionary of Occupational Titles (DOT), Military Occupational Classification (MOC), Occupational Outlook Handbook (OOH), Registered Apprenticeship Partners Information Data System (RAPIDS), and the Standard Occupational Classification (SOC).

Customers use these crosswalks to link external data to O*NET-SOC occupations in addition to linking O*NET data to occupations in another classification. Several international occupational systems have crosswalks to the SOC that allow for an international linkage to O*NET-SOC occupations as well. Canada, for example, has cross-walked their National Occupational Classification (NOC, see: <http://noc.esdc.gc.ca/English/home.aspx>) to the SOC (National Center for O*NET Development 2017). In addition, the International Standard Classification of Occupations (International Labour Organization 2017; see: <http://www.ilo.org/public/english/bureau/stat/isco/>) has been developed to serve as a model for country-specific occupational systems. Internationally, it serves as the accepted standard for international labor statistics.

O*NET Career Assessment Products

O*NET has developed a suite of career assessment tools for career planning, career counselling, and career exploration. The O*NET program has developed a total of seven career assessment tools and has updated these tools as users' needs and the world of work has changed (to see the rich source of reports and documents on these career exploration tools, customers can browse by the different tools within O*NET's Career Exploration page: <https://www.onetcenter.org/tools.html>).

Currently, O*NET offers the following career assessment tools:

- O*NET Interest Profiler (available in four versions)
- O*NET Work Importance Locator
- O*NET Work Importance Profiler
- O*NET Ability Profiler

*O*NET Interest Profiler*

The O*NET Interest Profiler measures Holland's (1997) six different types of interests (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional—RIASEC). The Interest Profiler is available in three different lengths: a 180-item, a 60-item (Short Form), and a 30-item (Mini) version.

The original 180-item Interest Profiler (Rounds et al. 1999) is available in both paper-and-pencil and computerised formats—though, this version is likely to phase out in the near future due to more recent developments. In recent years, a Short Form of the instrument was developed with 60 total items (10 items per RIASEC scale; Rounds et al. 2010). The Short Form is available in web format (see: <https://www.mynextmove.org/explore/ip>) and a paper and pencil version is under development. The web-based 60-item Short Form is the version available through the O*NET My Next Move sites and O*NET Web Services; the RIASEC profile is linked to O*NET occupations (Gregory and Lewis 2016).

More recently, a Mini Interest Profiler (Rounds et al. 2016a) was designed for use on mobile phones and related devices. Both the Mini Interest Profiler and Short Form Interest Profiler were developed to aid career exploration in settings that only allow short amounts of time for completion (e.g., employment centers, group career counselling sessions). Both are self-administered via the web and scored by the computer.

Emoji anchor scales have also been incorporated into the Short Form Interest Profiler and Mini Interest Profiler. Emojis have become very prevalent in today's society and increasingly common in modern work settings. To stay current and for practical purposes, O*NET tested the incorporation of emoji anchors in both the

Interest Profiler Short Form and the Mini Interest Profiler (emojis are often used in mobile settings because they are easily viewed on smaller screens without losing their meaning of response). Studies were conducted to determine the validity of the use of these types of anchors within the Interest Profiler (Rounds et al. 2016b). Results indicated that the emoji-anchored interest inventories were as valid for use in vocational assessments as traditional interest-based inventories.

Ability Profiler

The O*NET Ability Profiler (AP) is another useful tool designed to help individuals with their career goals and planning. The overarching uses for this tool include identifying one's strengths, identifying areas that could be improved through training or further education, and identifying occupations that utilise one's current and potential strengths. A person's results can be linked to over 900 occupations included in O*NET's database, and results are easy to interpret. In particular, the O*NET AP assesses nine abilities that are potentially relevant for a work setting: verbal ability, arithmetic reasoning, computation, spatial ability, form perception, clerical perception, motor coordination, finger dexterity, and manual dexterity (Allen et al. 2011; Kroustalis et al. 2010). The AP may be used on its own or may be used in tandem with other O*NET tools to foster career development and assessment.

The O*NET AP was developed to ensure that it would be both easy-to-use and valid (McCloy et al. 1999). Both customers and experts in assessment research provided guidance for the design of this measure. The AP uses a paper-and-pencil format, but it also includes optional components and computerised scoring. The measure can be administered in either individual or group settings, however, an administrator is needed to provide the instructions for completion while following a standardised protocol.

Work Importance/Work Values Profiler

The O*NET Work Importance Locator (WIL) and O*NET Work Importance Profiler (WIP) allow individuals to formally assess what they value in a job. The WIL and WIP use self-assessment, and users are able to discover occupations that match their personal work values. For example, if a person highly values relationships, they may enjoy working as a hairstylist because the environments hairstylists work in reinforce relationship needs, leading to greater job satisfaction and retention. The Work Importance Locator and Profiler measure six particular work values: achievement, independence, recognition, relationships, support, and working conditions. Like the O*NET Ability Profiler, the WIL and WIP link to over 900 occupations in the database, so there is an extensive array of possibilities for individuals to take into account.

The O*NET WIL and WIP are sound measures that are based on over 30 years of vocational psychology research, and they exhibit both reliability and construct validity (McCloy et al. 1999a, b). An additional benefit of these measures is the ease-of-use for laypeople, meaning individuals can administer and interpret their own assessment and scores. The measures take about half an hour to complete. These features make it easy and feasible for O*NET users to further their own career development using free tools.

O*NET Spanish Language Resources

The O*NET Program offers multiple Spanish language resources for its users, including websites and Web Services geared to Spanish-speaking populations, Spanish translations of the O*NET-SOC taxonomy, Spanish language questionnaires, Spanish-translated alternate titles, a Spanish keyword search, and a Spanish-version database.

Mi Proximo Paso, the Spanish-version of My Next Move, has its own Spanish URL and was developed specifically for the Spanish-speaking population. That is, a dedicated translation team translated the entire website and the contents of the web-based Interest Profiler to verify the accuracy of translation. Importantly, this allows for a verifiable translation to best assist the Spanish-speaking population in learning about careers and their interests.

Development of the Spanish keyword search (Morris 2014) was also populated in the same manner. Accuracy testing was completed to ensure the same results were returned for both the Spanish and English keyword searches. For example, when users type in “build houses” into the My Next Move keyword search or “construir casas” in the Mi Proximo Paso keyword search, the same/similar occupations are returned in both the English and Spanish keyword searches. Table 27.4 below provides a list of the top 15 international countries visiting Mi Proximo Paso in the first quarter (January through March) of 2017.

The O*NET Data Collection Program also offers Spanish versions of its questionnaires for a subset of occupations collected from job incumbents. It should be noted that these resources are general Spanish translations, rather than country specific (e.g., Argentina cf. Mexico). However, the resources provide a very useful starting point for international, Spanish-speaking countries.

Table 27.4 Top international countries visiting Mi Proximo Paso

Countries		
1. Puerto Rico	6. United Kingdom	11. Venezuela
2. Canada	7. Netherlands	12. Peru
3. Spain	8. Chile	13. France
4. Mexico	9. Argentina	14. Brazil
5. Colombia	10. Germany	15. Japan

Career Assessment Using O*NET

With occupational data and resources in one location, O*NET provides a platform on which to base career assessment and guidance programs from individual to multi-national levels. Individual practitioners and academics can utilise O*NET's tools and information to serve as a guide for clients or students with various interests, desired levels of education, work styles, values, and previous experience. Each person's characteristics can be matched to a host of occupations to help them tailor their career search. Additionally, for individuals interested in a particular occupation, O*NET provides many helpful resources. These include data on required knowledge, skills, abilities, work activities, work context, education level, related occupations, occupational interest types, work styles, and wages and employment trends from the BLS (see Fig. 27.2 for a visual display of O*NET's Content Model). There are also direct links to training, certifications, licenses, and job openings for most occupations. As part of the My Next Move site, O*NET compiled Career Videos for 267 occupations (see: <https://www.mynextmove.org/find/videos>). These short videos demonstrate the tasks and responsibilities of employees in a particular occupation. All of these are excellent resources for people to learn about occupations, compare occupations side-by-side, and find jobs in their desired field.

Aside from individual clientele, research across companies or industries can benefit from O*NET's organisation of data with the SOC system. Using the O*NET-SOC Taxonomy in the Resource Center (see Fig. 27.1), researchers can decide which level of specificity is most appropriate for their purposes. Additionally, because the O*NET Program collects data for occupations beyond the SOC system, companies may benefit from the increased specificity of the data to particular occupations. For instance, the occupation Transportation Engineer has its own data on O*NET, despite the fact that this occupation is grouped into an "All Other" category in the SOC system. For all companies who employ transportation engineers, it is beneficial to have data for this specific occupation, rather than using another type of engineer as a proxy.

*Career Assessment with O*NET in the United States*

O*NET data has been used for many purposes across occupations and industries. Baldwin et al. (2012) used a longitudinal randomised control trial to assess whether an ergonomic intervention could decrease arthritis-related work issues. The authors used O*NET to code the type of employment for each participant in the study at a broader industry-level of categorization. Altermann et al. (2008) used O*NET to develop a set of psychosocial characteristics of occupations to link to outcomes in national health surveys. They found that most of these psychosocial factors, such as generalised work activities, gaining knowledge and information processing, and

working with others, were related to important health outcomes, such as depression, smoking, and heavy drinking. These two examples demonstrate the use of O*NET data at different levels of specificity.

Many organisations and external websites make use of O*NET's tools and resources as well. O*NET's Products at Work (2017) lists many educational institutions, research outlets, career information systems or websites, private companies, and governmental agencies that utilise O*NET for various purposes (see: <https://www.onetcenter.org/paw.html>). The U.S. Army, for instance, uses O*NET in a multitude of ways. One use is to classify army specialties according to O*NET's occupational classifications in order to assess how soldiers' health and job performance is affected by different job conditions. The state of California includes O*NET's assessment tools and taxonomy on their CareerZone website to help students assess their interests, values, and skills. The distribution company Piedmont Natural Gas uses O*NET Career Exploration Tools and various sources of occupational data to match entry-level applicants' attributes with job openings to reduce turnover. The career exploration portion of the workshop developed by The Personal Success & Leadership Institute uses the O*NET Interest Profiler to help high school students assess their career interests (Products at Work 2017). For further examples of O*NET uses in businesses, government, and education in the United States, see Table 27.5

There are clearly many research initiatives and assessments underway across the United States that utilise O*NET's database and instruments. Although research across occupations and industries is valuable to the field as a whole, individual companies and organisations may also wish to conduct their own local studies and use O*NET's resources for internal purposes. Within a company, O*NET can be used for various managerial and human resource purposes, as well as employee growth and career development (Andreassi and Thompson 2007; Becker et al. 2015; Greene and Mi 2013; Venable 2010). Incumbent data and occupational data on O*NET can be used as a baseline from which to design selection systems and identify predictors for a particular job (Barros et al. 2014; Whetzel et al. 2011).

Other aspects of internal hiring, such as hiring for promotions, can be informed by O*NET's occupational interest data and use of the Interest Profiler. Interests have been shown to predict work outcomes such as training success and job performance (Nye et al. 2012, 2017) and career success (Rounds and Su 2014). O*NET's data can be used to match employee interests to jobs. For example, managers can assess whether employees who have the same interests as the occupation perform better on the job and have greater success in training. Employers can access the interest profiles of their own occupation on O*NET, and a local validity study with O*NET's Interest Profiler can determine whether interest congruence of current employees within the company predicts important work outcomes. Employees applying for promotion can also be instructed to take the Interest Profiler to assess their highest interest areas, which can then be matched to the primary interests of the position to which they apply.

Table 27.5 Examples of recent applications of O*NET in the United States

Organization	Organization type	Project	O*NET uses	Purpose
U.S. Army	Armed Forces	Army Study to Assess Risk and Resilience in Service members (Army STARRS)	Content Model descriptors	Study the effects of job conditions on soldier health and wellness
Ohio Career Information System (OCIS)	Career information system	Occupational systems	Interest profiler	Provide comprehensive occupational information to different groups of users from students to adults
			Work Importance Locator (WIL)	
			New and Emerging Occupations	
The Personal Success and Leadership Institute	Career information system	Personal success and leadership workshop	Interest profiler	Help high school students assess their career interests
Center on Education Policy	Educational institution	Building competencies for careers	KSAs	Assess whether the KSAs, work values, job zones, and bright outlook designations relate to learning competencies across a variety of jobs
			Work values	
			Job zones	
			Bright outlook	
Penn State University	Educational institution	The Mentor	O*NET online	Relate student questions to O*NET online searches to connect education preferences and values with careers
Seattle Washington Public Schools	Educational institution	Health and human services pathway	KSA's Database	Reorganise courses of study for the school system by tailoring courses to fit KSAs and occupations in the curriculum
California career resource network	Government agency	California career zone	Assessment tools taxonomy	Help students choose colleges and careers by assessing their interests, skills, and values and exploring career options
CareerOneStop	Government agency	GetMyFuture	Interest profiler	Help users find entry-level jobs and career paths to match their interests
			Database	

(continued)

Table 27.5 (continued)

Organization	Organization type	Project	O*NET uses	Purpose
The Maine Department of Labor	Government agency	Business outreach	Database	Attract new businesses to the state by matching job descriptions to KSAs; small businesses developed employees through training based on O*NET skills
Fors Marss Group, LLC	Private company	Mycareer@VA	Database	Develop a career mapping program for veterans
HR Avatar, Inc.	Private company	Test development	Database	Develop pre-employment tests based on O*NET’s job analysis data
Human eSources	Private company	Do what you are	Database	Match students’ personality and talents to careers and college majors
Piedmont Natural Gas	Private company	Internal uses	Career exploration tools	Reduce turnover among entry-level employees by matching applicants’ skillsets to available jobs
			Database	
Wonderlic	Private company	Wonderlic Basic Skills Test (WBST)	Skills data	Measure a job candidate’s verbal and math skills against the requirements for a particular job based on O*NET’s skills data
Fairbanks Job Center	Public workforce investment system	Planning your career	Interest profiler	Weekly workshop to help participants explore careers by taking the O*NET assessments and matching their results to occupations
			Ability profiler	
			Work importance locator (WIL)	
Texas Workforce Commission	Public workforce investment system	Common language project	Detailed work activities (DWA)	Develop a large database of work skills to relate worker capabilities to hiring requirements

Note: Information adapted from O*NET’s Products at Work (2017) KSA Knowledge, Skills, Abilities

Additionally, O*NET can be used internally to foster career development and growth using O*NET’s Job Zones. Job Zones describe the complexity level of an occupation, and the development of this data is based on required education, training, and experience for each occupation (“Procedures for O*NET Job Zone Assignment” 2008). Employees, especially at the lower levels in a company’s

hierarchy, can set career goals for themselves within the company. Using Job Zone data, human resource managers can help employees tailor career goals according to education levels, prior experience, and various amounts of training. These goals can serve as motivational forces for employees to perform better and further their careers (Locke and Latham 2006).

International Career Assessment with O*NET

Walmart, State Grid, China National Petroleum, Toyota Motor, Apple, and Berkshire Hathaway are corporations in Fortune 500's current top-10 list of the Global 500 companies, and each one has employees in multiple countries in different parts of the world (Fortune Global 2017). Career assessment in large corporations should span national borders in the same way the employees do. Though O*NET was developed with occupations and data in the U.S., companies and researchers across the globe utilise O*NET for many different purposes. For multi-national corporations, O*NET is an especially valuable tool. O*NET is an open source platform that is accessible in any country, making it a useful standard for comparisons across countries. For companies that hire employees across the globe, international research on career structure, work tasks, required education and experience, and work values would be particularly relevant.

O*NET's database is derived from expert ratings and incumbent data from U.S. employees. With this in mind, researchers in Europe, Asia, Africa, or South America can use this data as a baseline to compare local data to U.S. occupations. If two employees work for the same company, but one is in the United States and one is in Singapore, how does culture influence their work styles or required education levels, for instance? O*NET questionnaires are published online (for English and Spanish versions, see: <https://www.onetcenter.org/questionnaires.html>). These questionnaires include methodologies and collection processes, which allows researchers in other countries to do their own comparative job analysis and research while still leveraging the O*NET approach. Cross-cultural career guidance is a significant area of study as many companies continue to expand in the age of technology. Whether people work during the same shift or in the same place has become less critical for boundaries than whether technology can link individuals (House et al. 1995). This changing aspect of the workplace fosters interdependencies between employees regardless of their physical location and time zone.

Every year, millions of international web users visit the O*NET websites (see Table 27.3). International users also visit the O*NET for various projects, research purposes, and goals. Reviewing Web Service accounts, we found that the most frequent visits came from researchers and practitioners from Australia, Canada, China, Colombia, France, Germany, India, Ireland, Israel, Netherlands, Nigeria, Puerto Rico, Singapore, Spain, and the United Kingdom. These and other countries are listed in Table 27.6. Based on the Web Service accounts for O*NET's application programming interface (API), one of the most common uses of the data and

Table 27.6 International O*NET Accounts for Project Development from 2015 to 2017

Country	Account types	Project description examples
Australia	Private companies and commercial products;	Career assessment and planning portal; recruitment platform; develop a job family model
	International users;	
	Assessment and career information systems	
Austria	International users;	Develop a European taxonomy of occupational skills and qualifications
	Educational and research institutions	
Benin	International users	International investment consulting
Canada	Assessment and career information systems; educational and research institutions	Link students with professionals for job shadowing; develop a web application to summarize O*NET data for academic research
China	International users	Career app; career planning service
Colombia	Education and research institutions	Career interest assessment for students; assess the functionality of O*NET in Colombia
Denmark	Private companies and commercial products;	Catalog of tools for certain work roles; job description tool for people who are transitioning to new jobs
	Public workforce investment systems	
France	Education and research institutions;	Derive statistics from the French labor market; use social media to help people find jobs; help high school students choose paths and areas of further study
	Private companies and commercial products;	
	Assessment and career information systems	
Germany	International users;	Foster employees' career growth; assess the demographic spans of small businesses
	Educational and research institutions	
Hong Kong	Education and research institutions;	Machine learning with occupational data; assess interest codes of occupations
	Private companies and commercial products	
India	Private companies and commercial products;	Platform for choosing a college; build a job portal; website for college graduates searching for a job; website for career aptitude assessment
	International users;	
	Assessment and career information systems;	
	Education and research institutions	
Indonesia	Private companies and commercial products;	Website for high school job seekers; desktop app for job searching
	Assessment and career information systems	

(continued)

Table 27.6 (continued)

Country	Account types	Project description examples
Ireland	Private companies and commercial products;	Provide career descriptions for clients; European initiative to further career development; website for internships
	Assessment and career information systems;	
	Education and research institutions	
Israel	Education and research institutions	Develop a similar platform to O*NET; further educational research
Jordan	Private companies and commercial products	Career development for clients
Kenya	International users;	Assist high school students in selecting the right courses; career guidance platform for young students
	Assessment and career information systems	
Malaysia	Private companies and commercial products;	Empower organisations to recruit and develop talent; translate O*NET for college use in Malaysia
	Public workforce investment systems	
Mexico	Education and research institutions	Connect real-time skills data to occupations
Netherlands	Private companies and commercial products;	Mobile app to connect certain skillsets to job openings; develop competency assessments
	Assessment and career information systems;	
	Education and research institutions	
New Zealand	Private companies and commercial products	Platform for employers to search for the best candidates for positions
Nigeria	Private companies and commercial products;	Help young people explore career options and find mentors; library platform for students to find job resources
	International users;	
	Assessment and career information systems;	
	Education and research institutions	
Norway	Education and research institutions	Match prospective employees to jobs
Oman	Education and research institutions	Website for educational statistics
Philippines	Private companies and commercial products	Develop a flow of assessments; create a career development portal
Puerto Rico	Private companies and commercial products;	Update a career assessment system; career platform for students with disabilities
	Assessment and career information systems;	
	Education and research institutions	

(continued)

Table 27.6 (continued)

Country	Account types	Project description examples
Qatar	Assessment and career information systems;	Create an interest assessment; compare cyber security requirements in different industries
	Education and research institutions	
Saudi Arabia	Assessment and career information systems	Career guidance platform
Singapore	International users;	Develop job classification system; relate people's interests to careers; data mining project of job postings
	Education and research institutions	
South Africa	International users;	Match occupational supply and demand; compile job descriptions
	Education and research institutions	
Spain	Private companies and commercial products;	Website to aid in career decisions; project to assess future jobs
	Education and research institutions	
Sweden	Assessment and career information systems	Career assessment website
Taiwan	Private companies and commercial products	Transform the current workforce to fit future jobs
Turkey	Private companies and commercial products	Mobile career service app
United Arab Emirates	Public workforce investment systems;	Internal financial website; website to help transition from high school to careers
	Assessment and career information systems	
United Kingdom	Private companies and commercial products;	Educational app; career choice assistance platform; internal job skill assessment; compile detailed information on jobs to boost policy analysis; platform for nursing students to learn about different specialties
	International users;	
	Assessment and career information systems;	
	Education and research institutions;	
	Federal and state government agencies	
Venezuela	Assessment and career information systems	University study

resources is developing job guides or career planning services based on O*NET's model. For instance, many international researchers and practitioners are in the process of building a platform to help students explore career options or to match prospective employees with current job openings. In addition, there are also more specific uses. As shown in Table 27.6, one research team is using O*NET information to enhance the quality of policy analysis for the labor market in their country. Another team uses O*NET to highlight differences between various nursing

occupations as a comparison tool for nursing students. Yet another uses O*NET data to help people find jobs through social media platforms. In this way, O*NET provides useful information for education, researchers, counsellors, governments, and companies in the international community. The information offers a starting point or helpful resource for a multitude of different purposes.

In particular, many countries have developed, or are developing, career assessment portals, job hunting resources, taxonomies for skills and occupational qualifications, and general career guidance services based on O*NET's career model. Table 27.6 indicates that O*NET services are used for these purposes by a wide range of institutions: private companies with commercial products, companies developing online resources for international users, academic and research institutions, career information delivery systems, public workforce investment boards, and more. It is evident that other countries are able to make use of O*NET's career model in a variety of ways.

Researchers in different countries have taken advantage of the vast array of open-source data for career assessment purposes. There are several recently published papers that highlight different ways to use O*NET data. Athanasou (2017) analyzed the interests of Australian occupations and matched them to different skill levels. The occupational interest ratings from Australia's *Job Outlook* platform were informed by the Occupational Interest Profiles (OIPs) on O*NET.

Frenette and Frank (2017) used O*NET's occupational skill requirements in tandem with Canada's National Household Survey (NHS) data. This data merge led to the assessment of skill requirements in relation to employees' education levels. The authors were able to crosswalk from SOC codes to National Occupational Classification (NOC) codes, which are used to classify Canadian occupations. They found that given the same degree attainment, skill requirements vary considerably based on the field. They also found gender differences in the skill-level requirements for men and women at the same degree level and in the same field of study (Frenette and Frank 2017).

Sara de la Rica and colleagues used O*NET's resources for various purposes in Spain. In one study, the authors were interested in how immigration affects the labor market for citizens (Amuedo-Dorantes and de la Rica 2011). The authors merged the Spanish labor force survey with O*NET skill data using a crosswalk with Spanish occupation codes. Along similar lines, another study tested whether or not the immigration impact on the labor market depended on the business cycle, namely an expansionary period versus a recession (de la Rica and Polonyankina 2013). The authors used the ability requirements from O*NET to create a scale from manual-to-interactive tasks in each occupation.

Researchers in Hong Kong developed a measure of job-specific social skills for security guards (Cheung et al. 2006). They intended to use this measure with mental health consumers who wish to become security guards. The authors used the O*NET descriptors for the security guard occupation to check for consistency with the factor solution of their measure. They identified six factors, and the security guard respondents indicated that the "Problem Solving Skills" factor was the most relevant

for the job. The items that loaded onto this factor were consistent with the job description on O*NET (Cheung et al. 2006).

In Switzerland, Forstmeier and Maercker (2008) used O*NET to study how motivation affects health outcomes in old age. Participants were asked to report their previous occupations, and the researchers used O*NET to code motivational and cognitive variables based on data for the participant's longest-held occupation. Variables were chosen based on content validity analyses and correlations with self-reported motivation and a measure of intelligence (Forstmeier and Maercker 2008). The O*NET motivational abilities included goal orientation and action planning, and the O*NET cognitive abilities included selective attention, recognising problems, assessing performance, and social perceptiveness. Results indicated that a composite of O*NET motivational abilities was associated with reduced odds of cognitive impairment, after controlling for intelligence, gender, education, and age. The motivation composite also predicted cognitive status and psychological well-being. However, a composite of O*NET cognitive abilities did not predict cognitive status, odds of cognitive impairment, or well-being (Forstmeier and Maercker 2008).

These studies demonstrate a wide array of uses for O*NET data and assessment tools internationally. Private companies, government agencies, career information platforms, educational institutions, and researchers find useful resources through the O*NET sites and database. Many possibilities for research with O*NET remain, such as further utilising the common framework of O*NET for cross-cultural research. However, there may also be some challenges to using O*NET in other countries, so these challenges should be taken into consideration when implementing a research agenda.

Challenges with Applications of O*NET Internationally

Although there is clearly much potential in using O*NET for career assessment internationally, there may also be some limitations. The major issue is the question of how well the O*NET data, such as worker characteristics and occupational requirements, generalises across cultures. Here, we review research that attempts to examine the generalisability of the O*NET structure of work and worker characteristics across countries.

The question of different occupational tasks has been examined in occupations within and across eight different European countries in the 3-year EurOccupations project, which had the objective of building a similar platform to O*NET in Europe (Tijdens et al. 2013). Respondents from 151 occupations rated how frequently various tasks were performed on the job and how important each of those tasks were. For *task frequency*, the results indicated low interrater agreement by job title among countries. Specifically, a quarter of the occupations displayed low agreement, and another quarter displayed no agreement at all. Only about 10% of occupations displayed strong agreement. For *task importance*, ratings were more consistent, with about half of the occupations exhibiting strong agreement. Within countries, the

frequency ratings for the majority of occupations were classified as at least moderate in agreement, so similarity did improve within countries compared to between countries (Tijdens et al. 2013). This study challenges the notion that O*NET tasks from U.S. occupations generalise to tasks of the same occupations in other countries, which poses a challenge to international career assessment. We suggest that countries that lack the resources to conduct occupational analyses can have experts review O*NET's task lists, remove and modify irrelevant tasks, and add or remove tasks as needed.

Additionally, researchers have used O*NET assessments to compare job information across countries. In a large study with samples from the United States, New Zealand, China, and Hong Kong, incumbents from three different types of jobs completed several instruments developed from O*NET: the Generalized Work Activities (GWA), Basic and Cross-Functional Skills, and Work Styles (Taylor et al. 2008). In most cases, the results of the study indicated that O*NET job information can be transferred to jobs outside the United States based on the similarity of work activity ratings and similarity of job requirements across countries. These authors computed the average item ratings for each job within each country, and the differences between U.S. incumbents and incumbents in the other three countries were generally small in magnitude. Moreover, incumbents also rated the importance of the work activities and job requirements, and the rank-ordering of these ratings was similar across countries (Taylor et al. 2008). The findings support the notion that O*NET can be a beneficial resource outside the U.S. However, only four countries were included in these analyses, and only three types of jobs were compared: first-line supervisors, computer programmers, and office clerks (Taylor et al. 2008). Further research is needed to compare job information in other countries and with other types of jobs.

Researchers in Austria investigated the degree to which existing typologies of job skills could be applied in Europe (Markowitsch and Plaimauer 2009). The ultimate goal of the study was to progress towards an International Standard Classification of Skills and Competencies. The authors compared three potential systems: the Dictionary of Skills and Competencies (DISCO) from the European Commission, the Taxonomy_DB from AMS Sweden, and O*NET. Of the three, the authors concluded that O*NET is the most comprehensive, systematic, and structured. Although Taxonomy_DB was already internationally available in 20 European languages, Markowitsch and Plaimauer (2009) concluded that O*NET was the best candidate to serve Europe and to forward an international skill classification based on the breadth of data, accessibility, quality, and other factors.

A few international studies have applied O*NET information to the implementation of career guidance programs. In an Indian sample, Bhatnagar (2017) examined the usefulness of providing career guidance to individuals based on information from the O*NET. Management graduate students participated in a career decision-making workshop based on O*NET. Compared to a control group, the treatment group had significantly less indecisiveness and less decision-making difficulties due to lack of information, including greater knowledge of self, knowledge of occupations, knowledge of the steps of decision making, and ways of obtaining

information (Bhatnagar 2017). However, following the intervention, the treatment group reported higher levels of difficulties with dysfunctional beliefs than the control group, an unexpected outcome from the workshop. In general, this study supports the use of O*NET for career preparation and guidance internationally, but further research in other countries and cultures should be undertaken.

Overall, though much of the previous research is promising in regards to international use of O*NET resources and data, there is still much to be learned. Special care should be taken in translating and back-translating O*NET resources to other languages when used for research purposes, and measurement equivalence should be demonstrated for instruments such as the Interest Profiler or Work Importance Locator. More studies are needed to assess whether data from job incumbents in the U.S. can be generalised to incumbents outside of the U.S., and local validity studies should be done within companies. There are many future potential uses of O*NET's database and assessments to answer the questions that remain, as well as future ventures to further the goals of education, government, and companies around the world.

The Future of International Career Assessment with O*NET

Each country has its own needs in terms of wide-scale career guidance platforms, and O*NET can provide an exemplar for countries in the development stages. Many countries are in the process of developing career guidance platforms, compiling job descriptions, and implementing websites to aid in career decision-making (see Table 27.6 for countries in the developing stages). Although some countries have occupational information or career search platforms well underway, many countries have yet to develop these types of resources. Further, there are more specific types of platforms that may also be of use to students, such as side-by-side comparisons of different types of occupations or comparisons of the skill-levels required for different types of high-school degree occupations. As these types of projects can be taken on by governments, counselling centers, educational institutions, veteran bureaus, and other types of organisations, there are essentially endless possibilities for data collection, organisation, and accessibility.

Outside of broad information platforms, there are also many possible research directions that can utilise O*NET's database. O*NET's task lists can be used as a methodology to assess which tasks individual workers under the same job title perform on a daily basis in different countries to gain a better understanding of how culture impacts employees' work lives. The Interest Profiler (IP) can assess the vocational interests of workers in different countries and compare whether the same jobs attract workers under similar interest categories. The occupations themselves may also be classified differently. Work styles may be of use as a work-oriented personality assessment, and research should be done to assess whether the same factors generalise in other countries. Job Zones also provide interesting future possibilities because they combine three different types of data—education, experi-

ence, and training—into one complexity level. Each of these three components can be investigated separately or together to assess whether any requirements change across countries. Questions and research applications such as these provide interesting avenues for future research across the globe to harbour a better understanding of the world of work and how jobs change as a function of location and culture.

The future of career development also entails pushing practice forward. Companies must stay up-to-date with cultural awareness and training to keep up with the global market and business expansion. Not only do companies have employees across the world, but they may also deal with clients, partners, and competitors internationally as well. Companies may lose business if they fail to understand the people they are working with or fail to communicate in a way that connects with clients, especially if competitors do. For instance, companies such as IBM, Accenture, and Coca-Cola have initiated cultural training programs for their employees in order to provide them with resources about communication styles and norms in different cultures (McMahon 2012; Mithel 2012). In addition to in-house training programs, IBM uses an internal country navigator available to employees through the IBM intranet, which is a guide to cultural traits in countries around the world. Coca-Cola provides training for spouses as well when relocation is necessary as part of the job. Accenture emphasises the importance of communication, even small talk, when doing business in other countries (McMahon 2012; Mithel 2012).

These companies provide examples of the importance of global thinking in business, and O*NET can be of service in several ways. First, O*NET provides a list of references for articles, books, presentations, dissertations and theses, technical reports, user manuals, and websites that have cited or used O*NET. This list can be a great starting point for finding resources and information in different countries, and the list can be downloaded directly from the Products at Work web page (Products at Work 2017; see: <https://www.onetcenter.org/paw.html>). Additionally, O*NET's data can also provide a starting point from which companies can build cultural training tools by providing a taxonomy of the types of data that may be important to think about for cultural training programs. O*NET also has various sites that can be useful for cultural research, such as a Spanish language version of the career exploration site (*Mi Proximo Paso*).

Multi-national companies are in a good position to undertake further research on work and culture, which can inspire ventures such as employee training programs or common standards for selection across cultures. This type of research will benefit from the common framework of O*NET. There are international ways of looking at many issues that go beyond career development, particularly in an applied setting where legal requirements for fair selection procedures could extend beyond the borders of an individual country. Internal research is important for establishing various legal tenets, such as demonstrations that all selection procedures predict performance on the job for each country in which employees are selected. For example, if a personality inventory is employed as part of the selection battery, researchers should demonstrate that the inventory has measurement equivalence in different countries in order to be used as a global selection instrument. This type of research

will enhance the understanding of differences or similarities in career structures, within and between companies, in different cultural contexts.

The future of career assessment must also keep up with future trends in the workplace. According to the Society for Industrial and Organizational Psychology (SIOP 2016), workplace trends include focuses on health and wellness, incorporating the voice of the employees for further feedback and innovation, focusing on diversity, further flexibility of work, big data, and changes in performance management. These trends are important for both research and practice, and O*NET's database can be a useful source to study these topics in combination with local data or other large public databases. Future trends will continue to evolve as companies expand, the nature of work changes, and technology advances. The O*NET Program will continually adapt and enhance the O*NET to accommodate the ever-changing world of work.

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Chapter 28

Testing and Assessment in an International Context: Cross- and Multi-cultural Issues



Jérôme Rossier and Maria Eduarda Duarte

Abstract Globalisation, increase of migration flows, and the concurrent worldwide competitiveness impose rethinking of testing and assessment procedures and practices in an international and multicultural context. This chapter reviews the methodological and practical implications for psychological assessment in the field of career guidance. The methodological implications are numerous and several aspects have to be considered, such as cross-cultural equivalence or construct, method, and item bias. Moreover, the construct of culture by itself is difficult to define and difficult to measure. In order to provide non-discriminatory assessment, counsellors should develop their clinical cross-cultural competencies, develop more specific intervention strategies, and respect cultural differences. Several suggestions are given concerning translation and adaptation of psychological instruments, developing culture specific measures, and the use of these instruments. More research in this field should use mixed methods, multi-centric designs, and consider emic and etic psychological variables. A multidisciplinary approach might also allow identifying culture specific and ecological meaningful constructs. Non-discriminatory assessment implies considering the influence and interaction of personal characteristics and environmental factors.

Keywords Cross-cultural equivalence · Indigenous test development · Measurement invariance · Multicultural assessment · Non-discriminatory assessment · Test adaptation

Globalisation, increase of migration flows, and the concurrent worldwide competitiveness impose a shift on intercultural research, towards an integrative background to both common and regional competencies to achieve added value and usefulness of testing and assessment techniques. Whenever a test is translated and adapted for use

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in another language or culture, it is mandatory to know that the process begins always with evaluation: the first issue concerns the conceptual definition and the context of its operationalisation, which means the identification of the relevant contents of cultural knowledge. In this case, the ingredients of knowledge mean the understanding of how culture is expressed through beliefs and values, behavioural expressions, symbols and habits, but also mean a balance between cognitive knowledge and attributes of *good judgement* to deal with the culture or sub-culture variables. The close connection between these two aspects can lead to a deep awareness of construct validation research within each population for which translation or adaptation occurs.

As Hambleton (2005) pointed out, a distinction has to be made between test adaptation and test translation. In his view, the term “adaptation” is broader and more reflective of what should happen in practice when preparing a test that is constructed in one language and culture for use in a second language and culture. Test adaptation includes all the steps involved in developing a measure to assess a specific construct in a different language and culture, taking into account the specificities of that language or culture (Arbona 2014). Such an adaptation may imply to develop new items, consider new subscale, or to redefine the construct. Translators are trying to find concepts, words and expressions that are culturally, psychologically, and linguistically equivalent in a second language and culture, and so clearly the task goes well beyond simply preparing a literal translation of the test content (Osborn 2012). In short, test adaptation does not run in straight lines: evaluative information on culture and context is much more complex than creating guidelines for cross-cultural normative assessment.

The classical discussion about “culture-free” tests (Cattell 1940), “culture-fair” tests (Cattell and Cattell 1963), or “culture-reduced” tests (Jensen 1980)—an important debate that took place during almost 50 years—belongs to the past (Duarte 2005). Cultural issues need to be understood as meanings and practices that have an important role and mediate the impact of ecological suitability. It seems interesting to refer to the origin of the word *ecology*: from the Greek etymon *oikos* (house) and *logos* (order as intrinsic rationality). Ecology might be translated by “put one’s house in order”. Coincidentally, the word *economy* has the same first etymon *oikos*, and *némo* (that means distribute the spaces). Then, in a broader sense, ecology and economy, having commonalities pointing to the same sense: a way in which things are placed in relation to one another—that means appropriateness or suitability. Indeed, the challenge today is to have non-discriminatory assessment procedures that are appropriate in our multi-cultural societies.

Nowadays, test adaptation, even considering the “free”, the “fair”, the “reduced” or other added words to culture, does not address the presumed equivalence of constructs in a different context that differs from the environment in which the original test was developed. This implies three main issues to assess behaviour in a particular culture: first, test development should be based on situation sampling, through the definition of the relevant and observable aspects of a particular construct; second, test development should be based on function sampling, through the refinement of test items in terms of how they could be operationalised within a specific cultural context; and third, test development should be based on the identification of

differential variables and context information (e.g., patterns of cultural or subcultural rewards).

Cultural bias or a poor understanding of how culture influences the process of translation or adaptation can generate distortions on the assumption of the differential paradigm, centred on the rationale of individual differences to determine the experimental design and decisions about psychometric procedures. From the moment that theoretical concepts are translated into and assessed as measurement dimensions, a variety of procedures must be examined: evaluative information on culture (seen as a construction) and context; stipulation of relevant and observable aspects of the construct; items phrasing (operations and content choices); differential variables and context information.

Creating ways of collecting information that is pertinent regarding cross and multi-cultural issues also comprises methodological questions. These issues are examined as well as the outcomes of testing and assessment in an international context. During the last decades, a recurring criticism among many career counsellors is that standardised tests are culturally biased. The concept of culture as a socially constructed phenomenon, and questions like the sampling of behaviour across cultures will be discussed. This chapter also presents the difficulties and challenges of translating and adapting psychological measurements based on the experience of processes of adaptations of assessment devices. The debate of non-discriminatory assessment implies the development of culture specific measurements or of instruments that are simultaneously created in several cultures. The Work Importance Study (Super and Šverko 1995), the development of the Career Adapt-Abilities Scale (Savickas and Porfeli 2012) or the current international project about decent work (e.g., Masdonati et al. 2019; Ribeiro et al. 2019) are examples of construction of instruments adapted to various ecological contexts.

Globalisation and migratory flows induce a cultural diversification of societies that push vocational psychologists to strengthen some specific lines of research: promote cross-cultural studies analysing the relationships between psychological measurements and external criteria; or ethnographic multi-method methodologies to conceive new culturally specific theories and quantitative and qualitative measurement tools in the field of career guidance. The chapter concludes with practical implications for the use of measurement procedures and instruments with culturally diverse populations. Research on testing and assessment in an international context will have to also consider interdisciplinary, contextual, functional, and processual aspects, the interaction between the different life domains, new theories in our field, and adopt a holistic perspective.

Methodological Implications

The goal of offering a more comprehensive approach to assessment in order to describe better the strengths of diverse populations has several methodological implications. The culture-fair perspective implies, for example, the simultaneous

development in a variety of cultures of measurements based on a model that has the potential to be transposed into different cultural settings. The Five-Factor Model or the Alternative Five-Factor Model of personality are examples of such models that replicated well across many countries (McCrae 2017; Rossier et al. 2016) even if, in some cases, minor variations could be observed in some specific cultures (Rossier et al. 2017). Interestingly, translation in some specific languages can be quite challenging (Rossier et al. 2013). Recently, a combined emic-etic approach was used to simultaneously develop, in different ethnic groups, the South African Personality Inventory (SAPI; Fetvadjev et al. 2015). This study allowed the identification of personality dimensions that seem to be universal and other more culture-specific, and the frequency of the use of personality descriptors seemed to vary across cultural groups. However, all theories do not have this potential to be easily transposed. In particular, where models are culturally founded, such as value systems or career aspirations and expectations (Metz et al. 2009), culture specific measurements should be developed. “[Each] language and group has unique value terms, but all can be located on the circular continuum and subsumed under one of the basic values” (Schwartz 2017, p. 129). Furthermore, several models might be transposed to some cultural settings but are not universal. This seems to be the case for Holland’s vocational model, for example (Armstrong et al. 2003; Ryan et al. 1996). In this context, two concepts are of prime importance to assess the appropriateness of measurement instruments across cultures: first, the notion of equivalence, and, secondly, the notion of bias (Van de Vijver and Leung 2011).

Any cross-cultural or cross-national studies can be considered as quasi-experimental because the different groups cannot be distinguished according to only one independent variable, as for example language, because they are not similar in all other respects. In fact, in the case of cross-cultural or cross-national studies, existing groups are compared (Van de Vijver and Matsumoto 2011). In this type of study, the control on the independent variables is much weaker and should imply a description of what distinguishes two cultures, which somehow seems difficult. One implication of this difficulty is that the reasons of observed differences between groups of subjects from different cultures are difficult to identify. “Culture is too global a concept to be meaningful as an explanatory variable, however, and should be replaced by its constituents” (Van de Vijver and Leung 1997, p. 3). These constituents called context variables by Van de Vijver and Leung can be person-related, such as age or gender, culture-related, or nation-related like gross national product. The idea is roughly to identify variables that might account for cross-cultural score differences and that might also be used as indicators of external validity. One example of such an approach can be seen in the research conducted by Ryan et al. (1996), who studied Holland’s structure of vocational interests across ethnicity, gender, and socioeconomic status.

The concept of equivalence is closely associated with testing and assessment in a cross-cultural context and concerns the comparability of scores obtained in different cultural settings. Several levels of equivalence across cultures are considered but the labels used vary in the cross-cultural literature, inducing some confusion. Most of the time, three levels of psychometric equivalence are considered. The first level

is a level, that may be called *configural equivalence*, and that imply to verify if a model can be relevant for different groups. This level is called structural or functional equivalence by van de Vijver and Leung (2011). The idea is thus to verify if a factor structure is similar across groups, using multigroup analysis. In this case we can speak of a non-metric equivalence, because it assesses only overall configuration of the structure of the studied construct. The second level is commonly called *metric equivalence* and imply to verify that the factor loadings are equal across the groups (Byrne 2016). In case of equivalence of the loadings across groups, we may speak of partial measurement equivalence. In this case the metric of the scales should be equivalent across groups. Finally, the third level is commonly called *scalar equivalence* and imply to verify that intercepts are equivalent across groups. According to Meredith's (1993) nomenclature, metric equivalence would fall into the *weak* and scalar equivalence into the *strong* metric invariance category. The level of equivalence is certainly dependent on the construct measured, on the characteristics of a measurement instrument, but also on the cultural distance between the studied groups. The three levels of equivalence have to be considered with great caution. If configural equivalence does not imply metric or scalar equivalence, scalar equivalence implies the two less demanding equivalence levels. Across cultures, scalar equivalence is usually difficult to reach, but would be necessary for testing mean differences (Byrne 2016). For this reason, several methodologists suggested alternative less strict methods to assess measurement invariance, especially when the goal is to test latent mean differences (Millsap 2011; Raykov et al. 2012). Other authors have proposed other more liberal alternatives, such as a Bayesian approach to assess approximate measurement invariance (e.g., Zercher et al. 2015).

Bias might affect all steps of research aimed at developing measurement instruments. Measurement instruments are themselves affected by several types of bias. Bias can affect theoretical constructs, research procedures, or data analysis. Using a cognitive ability test with populations that do not benefit from similar school systems might lead to differences in stimulus familiarity that can explain the cross-cultural score differences. Van de Vijver and Leung (2011) distinguished three types of bias: *construct bias*, *method bias*, and *item bias*. Construct bias concerns, for example, incomplete overlap of the definition of the construct across cultures. Construct under-representation or, in other words, a poor sampling of aspects relevant to a specific construct, might lead to such a construct bias. Another source of construct bias is the transposition of Western constructs to non-Western cultures where these constructs may be less relevant or have to be defined differently. For example, transposing an interest inventory to a country where career options are limited, might lead to such a bias. As interests develop in interaction with their environment, the absence in a given environment of the possibility of exercising a certain number of professional activities could have an impact on the structure of professional interests. However, some instrument can be remarkably stable across two very different cultures, as the *Personal Globe Inventory* or the *Career Decision-Making Difficulties Questionnaire* (Atitsogbe et al. 2018). Even if construct bias is avoided, an instrument can still be affected by method bias, such as differences in social desirability or differences in stimulus or response procedure familiarity. This

bias is closely associated with the characteristics of an instrument. For example, an interest inventory might ask the respondents to rate several professions that are not equally familiar for people of different cultures. Moreover, response style, as socially desirable responding or acquiescent response bias, are affected by culture and might be an aspect of cross-cultural communication style (Johnson et al. 2011). All these sources of method bias have an impact on the mean levels measured on the assessed dimensions, and they cannot be attributed to individuals. Finally, item bias refers to differential item functioning and can be due, for example, to poor translation or inadequate item content.

Now, considering the impact of bias on equivalence, no equivalence can be attained in case of construct bias. However, in the case of method or item bias, structural equivalence and even, in some cases, measurement unit equivalence might be reached, as long as the bias affects all items uniformly (Van de Vijver and Leung 2011). For this reason, it is very important to identify these biasing effects when using a measurement instrument in an international context.

Most commonly used assessment instruments in the field of career guidance have been translated into numerous languages. For example, the *Strong Interest Inventory* and Holland's *Vocational Preference Inventory* and *Self-Directed Search* have been translated into more than 15 languages (Rounds and Tracey 1996). However, several studies suggested that Holland's hexagonal model does not replicate well across cultures (e.g., du Toit and De Bruin 2002; Long and Tracey 2006; Rounds and Tracey 1996) suggesting that indigenous interest structures should be considered (Einarsdottir et al. 2013). A more recently developed spherical model of interests and its measurement instrument called the *Personal Globe Inventory* (PGI; Tracey 2002) seem to replicate quite well across cultures and were validated in various socio-cultural contexts, such as in Japan, Serbia, or Bulgaria (Hedrih et al. 2016; Long et al. 2006). A study having investigated the measurement equivalence of the PGI across Switzerland and Burkina Faso has shown that the PGI did reach configural and metric equivalence but not scalar equivalence, suggesting that culture specific norms should be considered (Atitsogbe et al. 2018). These studies indicate that some interest models and inventories appear to be quite sensitive to the cultural context whereas the spherical model seems to be more robust. It has to be noted that many locally developed interests inventory assess culture-specific dimensions (Rossier and Fiori *in press*).

The study of the measurement equivalence of Schwartz's structural model of values is another illustration of this type of research about the cross-cultural generalisation of a measurement instrument. Schwartz (1992) defined a model of values and developed the *Schwartz Value Survey* on the basis of empirical cross-cultural studies (e.g., Schwartz and Bilsky 1990). This model defines ten values that can be represented in a bi-dimensional space. This structure was found to be very stable across cultures even if some consistent deviations that might represent some potential culture-specific characteristics have been observed (Schwartz and Sagiv 1995). More recently Heim et al. (2017) studied values of Chinese, Russian, and German students and observed that the *Portrait Value Questionnaire* (PVQ-21) did reach configural, metric, and partial scalar invariance. However, their expectations in

terms of cross-cultural differences were only partially met, suggesting that the relative importance of values could have changed due to the recent economic and cultural developments. For Schwartz (2017) the language and group terms have unique value:

but all can be located on the circular continuum and subsumed under one of the basic values. Individuals and groups differ in the priority they ascribe to particular values, but not in the content and structure of the values they recognize. (p. 129)

Taking into account these concepts of bias and of equivalence has several practical implications for researchers developing measurement instruments. For example, when developing an instrument in several cultures simultaneously, attention should be paid both to the sampling of cultures and the sampling of subjects. In order to have a diverse set of cultures and to maximise the chance of identifying cultural differences, it is desirable to select cultures as different as possible and simultaneously to maximise the comparability of the subjects across cultures. Moreover, several statistical techniques have been developed to assess equivalence of tests or items across culture. An item bias analysis verifies that individuals from different groups supposed to have *equal standing* on a particular construct have similar scores on items intended to assess this construct. This can be done by using item response theory or by analysing the measurement equivalence, using exploratory factor analyses or structural equation modelling (Leong et al. 2016; Matsumoto and Van de Vijver 2011).

Challenges of Non-discriminatory Assessment

The challenges of non-discriminatory assessment consist of identifying strengths and weaknesses of individuals being assessed without any influence due to their belonging to a specific culture or minority group. For this purpose, it might be very useful to take into account how individuals relate and interact with various systems existing in their own proximal world. However, if scalar equivalence could be attained, these precautions should cease to be necessary, but scalar equivalence is only very rarely observed. For this reason, the potentials and difficulties of culturally diverse clients might not be correctly assessed using traditional standardised measures (Schwabe et al. 2016). The challenges of non-discriminatory assessment become an even more acute topic with the important increase nowadays of migratory flows (OECD 2017) that implies that some of these people will need career guidance and counselling to sustain their social integration.

Each culture or minority group can have specificities that should be taken into account when using a measurement instrument. The principle of equity implies the recognition of this diversity and career counsellors should select measurement instruments that are adapted to these groups. Indeed, the challenge for equity in assessment implies that the measures are accurate and that the interpretations and decisions made on the bases of these measures do not discriminate any of these

groups. However, the task of a researcher designing an assessment procedure is made particularly difficult because societies themselves do not generally respect the principle of equity. A review of the principles generally recommended for cross-cultural assessment concern three aspects: competencies, intervention strategies, and respect for cultural differences (Gopaul-McNicol and Armour-Thomas 2002). An example of such recommendations can be found in the “Guidelines for providers of psychological services to ethnic, linguistic, and culturally diverse populations” (American Psychological Association [APA] 1990). For adapting tests, the guidelines of the International Test Commission (2010) should be considered. Concerning competencies in the field of cross-cultural assessment, it is necessary that career counsellors understand the limits of the assessments they use with culturally diverse groups. When interpreting the results, they should take into account cultural factors that might impact clients’ scores. When using measurement instruments with culturally diverse groups, it is of course crucial to respect cultural differences and to adapt intervention strategies or the measurement procedures to the culture of the client. Indeed, cultural practices may have an influence on an individual’s performance or response to specific assessment tools.

Non-discriminatory assessment implies that career counsellors take the influence and interaction of personal characteristics (e.g., interests, values, abilities) and environmental factors (e.g., social status) into account (Collins and Arthur 2010). Indeed, all these factors might impact the career choice and the career path of an individual. For example, several aspects of a client’s environment, like his/her parents’, sisters’, or brothers’ professions, may have a substantial influence on their vocational interests. For this reason, it is important to consider that such factors may contribute to the choice of a particular job. However, in a meta-analysis that investigated the relation between culture and vocational choice variables, Fouad and Byars-Winston (2005) observed that cultural differences do not greatly affect career aspirations but that these differences might affect the perception of career prospects, which might be in agreement with the socio-political context within which these minority groups are living. This study suggests that career counsellors should pay special attention to these perceptions that seem to be context or culture specific.

In order to promote non-discriminatory assessment or to reduce inequity, several recommendations might be given to career counsellors when working with clients in an intercultural setting. The first measure might simply be to ensure that everyone has equal access to career guidance programs. In order to reduce inequity in assessment, career counsellors should pay attention to the cross-cultural validity of the instruments they use, be sure that appropriate norms are available, use the appropriate language version, spend more time on exploration, use different types of instruments, adapt the assessment procedure, and compare the results with other information obtained using a clinical approach.

Concerning standardised measurement instruments, the cross-cultural validity should be more systematically assessed or confirmed. It is also crucial to use norms adapted to the culture or the minority group in order to ensure the fairness and accuracy of the interpretation of the client’s test results (e.g., Rossier 2005). Culture-specific norms should correct for social inequality and unequal opportunities in

societies. It is, of course, important that clients are assessed in their dominant language. The effect of the cultural environment might be especially strong if the dominant language of clients is not the usual language spoken in their environment (Gopaul-McNicol and Armour-Thomas 2002). If it is not possible to assess the counselees in their dominant language, it is necessary to determine the level of proficiency in the language used by the proposed assessment tools. A non-verbal test can be an option in some cases, even if culture-specific norms are also necessary. To assess abilities, the *Wechsler Nonverbal Scale of Ability* (Wechsler and Naglieri 2006) or the *Naglieri Nonverbal Ability Test* (Naglieri 2016) are often used.

For interests, values, or to screen contextual and personal strengths and weaknesses or resources and vulnerabilities, qualitative assessment can be very useful with diverse populations (Goldman 1992). For interest, card sorting tasks are also interesting tools and allow one to understand a counselee's criteria of choices. They stimulate vocational exploration and can be used for people with low verbal skills or who have a poor representation of vocations. Moreover, interest exploration should also expose the client to a variety of careers in a very concrete way (for example, visiting job sites or participating in training periods might be useful in such cases). This might be especially effective for clients that were never directly exposed to some specific professions. Roughly, the main idea is to minimise the chance that clients' choices are not based on an exploration and evaluation of all effective possibilities offered by their environment. This risk of a foreclosed choice is especially important for migrants and their families who might be less familiar with the vocational and educational system of their host country.

Inventories can also be used by adopting a more clinical approach; items that would not be understood could be rephrased by the counsellors in order to make them fit with the client's cultural realm, educational or social experiences:

It is therefore critical for 'culture fair' vocational assessors/examiners to be aware of the questions on each test that may present some difficulty for culturally diverse children [or clients] and to assist them with each of these questions by engaging in an item equivalency type of approach. (Gopaul-McNicol and Armour-Thomas 2002, p. 117)

Finally, when assessing migrants, it could be advisable to assess the adaptation process, by assessing counselees career development using repeated measures of competences, values, projects, barriers, etc.

In some cases, it might also be interesting to compare results of traditional psychometric tests with curriculum-based assessments and portfolios. Curriculum-based assessments consist of assessing an individual several times during a learning process or to analyse the abilities based on real-life achievements, and a portfolio is a self-evaluative tool asking the subject to list all his/her competencies and to document them. For example, leadership or organisational competencies might be documented with voluntary activities. Another concrete precaution, in the case of measurement instruments with time limits, as with intelligence measures, is to let the client continue after the time limit in order not to have only the maximum performance but also an estimation of their potential without this time constrain (Gopaul-McNicol and Armour-Thomas 2002). This seems particularly interesting

with people who are emotional or unfamiliar with the assessment situation. This type of procedure is already proposed for some instrument like the *Wonderlic Personnel Test* (Wonderlic Inc. 1983).

Finally, career counsellors should go beyond standardised tests and use, for example, a clinical perspective. Several authors, have adopted and developed narrative and contextual approaches to assess clients from diverse cultures (Busacca and Reh fuss 2017; Laher and Cockcroft 2017). Yasui (2015) developed a process of clinical practice based on cultural experiences that foster cultural exchange. The goal of such a procedure is to obtain information about various aspects of a client's life, which might be affected by cultural factors in order to incorporate this information into the career counselling process. This kind of interview might help both the client and the counsellor to understand the impact of these factors on career decisions. Moreover, career counsellors have to be familiar with the culture of their clients. All these suggestions do not warrant controlling for all bias in cross-cultural assessment but should allow reducing inequity.

It would of course be much easier to provide non-discriminatory assessment if assessment procedures were culturally equivalent. However, this would not solve all the problems and it seems very desirable in all cases to combine a standard evaluative approach with a multi-source and clinical approach. For this reason, the training of career practitioners should include multi-source career assessment combining quantitative, qualitative, and clinical evaluations. However, the endeavour of developing assessment tools usable with individuals from different cultures should be encouraged. Another way to increase the adequacy of assessment procedures would be to more systematically adapt versions of measurement instruments to fit diverse cultural realities (Leong and Brown 1995). One advantage of creating culture specific instruments would be to avoid the risks of ethnocentrism (Marsella and Leong 1995). Thus, combining the etic and the emic approaches seem to be a promising perspective. Moreover, more systematic research about constructs in the field of career guidance is needed.

Translating and Adapting Psychological Instruments

When Alfred Binet (1857–1911) published his first intelligence scale in 1905, he certainly did not pay too much attention to ascertaining that the procedures are understood in identical ways in different cultural populations. He was far from the identification of cultural parameters that may affect the operation of the presumed universal psychological process (Kitayama 2002; Munroe et al. 1981). In other words, cross-cultural methodological issues relevant to a rationale for developing international psychological devices were not a priority in the beginning of the twentieth century. Since the creation of the first (in contemporary terms) test, the accountability of “imported” measurement devices, became, and still is, a major issue in psychology theory and practice.

At least five major reasons can be found for adapting tests: (a) it is cheaper and faster than constructing a new test; (b) when the purpose is cross-cultural, it is the most effective way to produce an equivalent test, allowing comparing results across cultures; (c) lack of expertise for developing a new test; (d) sense of security, especially when the original test is well-known; and (e) fairness to examinees resulting from the presence of multiple language versions (Hambleton and Patsula 1999). These five assumptions are still controversial; but, at least one more reason should be added: the recognition of the global prevalence of American models in psychological research, since the beginning of the twentieth century until now and in particular its impact on both maximum performance and typical performance measures (Cronbach 1990).

The advances and the recognition of the importance of inter- and intra-cultural differences in human behaviour in coping with environmental needs and pressures, led to a project initiated in 1992 by the International Test Commission (2010) aiming at the development of general guidelines for translating and adapting educational and psychological tests. Since then, steps for implementing the guidelines were taken, and some paths were opened leading to a more global approach to psychological measurement. Is it psychologists' way to respond to the effects of globalisation? Or is it an opportunity for taking new theories for the development of cross-cultural tests? There are good reasons to suspect that both questions bring to mind the same answer. In general, there are many differences among cultures, among regions, among countries, but there are also commonalities and "the engagement in dialogue about international perspectives on and comparative features of educational and vocational guidance around the globe provide a comprehensive understanding of the issues faced by scholars and specialists concerned with the internationalisation of educational and vocational guidance" (Savickas et al. 2005, p. 84). Many practitioners and scholars around the world have expressed the importance that colleagues from all over world participate in the development of indigenous testing and assessment procedures, tools, and career development models (e.g., Leong and Pearce 2014). In summary, test results in conjunction with the interpretation of cultural values can be used to develop theoretical and empirical studies for the purpose of being useful to individuals who need career psychological assistance.

Testing and assessment in an international context relies on methodological requirements for cross-cultural equivalence and cross-cultural adequacy. Items and constructs should replicate well but also have the same relevance from one context to the other. In this sense, it seems desirable to propose a comprehensive framework for the implementation of the adaptation process—a process that has to take into account the specificities of the context towards which the adaptation is done. Some general steps to do *the job* are discussed based on the experience in translating/adapting psychological measures, such as *The Adult Career Concerns Inventory* (ACCI) (Super et al. 1985) or the *Career Adapt-abilities Scale* (Savickas and Porfeli 2012), translated and adapted into several languages, but also in the literature connected with translating and adapting psychological tests (e.g., Hambleton 2001; Hambleton et al. 2005; International Test Commission 2010; Oakland 2004).

Step 1. Translating an observation device into another language is more than lexical transposition

The difficulties and challenges that the researcher encounters in preparing a test to be used in another language start from the moment of the decision to translate. If the classical translation procedures are used (Gjersing et al. 2010; Warner and Campbell 1970), there is a trap: linguistic equivalence is not a guarantee that items represent exactly the same construct dimensions. Thus, in some cases the content has to be adapted to insure construct validity. This aspect calls attention to the content of the components of the dimension intended to be measured, concerning behaviour and construct interpretation and meaning. It is a kind of exercise in order to make the bridge between the understanding of items phrasing in terms of operations and content choice (function sampling). Then, a first point should be highlighted: the psychologist/translator should have an extended knowledge of theoretical literature and empirical studies related with the instrument he/she wants (or needs) to adapt.

Step 2. Draft translation of the test

The first attempt at translation should be accomplished using systematic methods and procedures (e.g., Duarte 2005; Van de Vijver and Hambleton 1996), including field-testing with the new respondents. This draft translation, as close as possible to the original version, should be administered in a non-standard way. Soliciting all kinds of opinions from the respondents (preferably, by psychologists well-versed in the theory undergirding the instrument) about the individual items, the interpretation of instructions and response alternatives, seems a good procedure for the launch of the adaptation process. However, cross-cultural applicability remains unproven. Opinions from natural groups (random sampling) are another point that should be taken into consideration; obviously, these natural groups have to belong to the target population for which the test was constructed. Butcher (1996), a researcher involved in studying personality assessment in intercultural contexts, and in particular, the use of the MMPI, refers to linguistic equivalence by using a seven-step procedure that includes translation, back translation, comparisons by bilinguals, field comparisons, adequacy with American norms, development of new norms with representative samples, and ongoing research to assess cultural validity. It seems that it was a very good intention, and scientifically very accurate and strong, but also shows unrealistic research possibilities.

Step 3. Amending

Adaptation is a sequential process of back and forward equivalence inspection and so forth. Linguistic meaning, cultural adaptation, and accurate technical information to reconstruct the translation are crucial issues at this moment in the job. The importance of field-testing to verify the acceptability in the target language is crucial. Another procedure is connected with construct validation, that implies among other the assessment of structural validity. However, this methodology has been insufficient to make available unambiguous demonstrations (Strauss and Smith

2009). It is thus of prime importance to assess construct validity within the target population after translation.

Step 4. Refinement of the adaptation process for the launching of the preliminary studies, and collection of empirical data

The support of experts in theoretical literature and empirical studies related to the instrument, in psychometrics, and experts well-versed in the test original language, as well as linguistic experts to guarantee superior standards of syntax and semantic is central to make the final revisions of the translation or adaptation process. After that, a pilot study should be carried out, using available expert participants to discuss the adapted version of the instrument, and also a sample of participants representative of the target population the test addresses. The researcher's work consists, again, in mapping convergent and divergent opinions related with the content, the format, and the response alternatives. The decision about ending the adaptation and launching preliminary studies depends on whether the researcher has found paths to answer the fundamental questions: does the construct exist, with the same components, in the adapted version? Are there differences in meaning between the two versions? Does the researcher have enough knowledge about the cross-cultural similarity of the construct? Of course, any researcher has no answers at this time of the process: evidence exists only with empirical studies. Statistical procedures after these preliminary studies may assume some importance; for example, comparisons with the results obtained with the original version, like reliability measures, and multiple-group factor analyses for checking construct equivalence.

Step 5. Administration to experimental groups

At this stage, probably the test is ready for the administration to a large group of participants representative of the target population. Linguistic procedures, elementary utilisation of psychometric apparatus, such as test and sub-test reliabilities, item-analysis, multigroup factor analysis can only provide an incomplete demonstration of equivalence. However, this phase is crucial to verify the similarity, or equivalence, between the original and the adapted form of the test. Statistical analysis to determine construct equivalence between the two versions of the test is a procedure that tests whether the same dimensions underlie the scores. Until this precise moment of the translation or adaptation process, scalar equivalence demonstrations continue submerged (Van de Vijver 2000), and only comparative empirical research can establish cross-cultural construct equivalence.

Step 6. Cross-cultural assessment

The cross-cultural study of structural equivalence is an important way of establishing the validity of the measures. Analyses of empirical evidence and data comparisons (Hambleton 1993; Oakland 2004) cover the major aspects related with situation sampling, function sampling, and ecological context. The administration of culture specific tests (Van de Vijver and Hambleton 1996) has been accomplished by construct identification, measurement, and subsequent cross-cultural compari-

sons (Van de Vijver 2015). For example, Atitsogbe and colleagues (2018) assessed the cross-cultural invariance of both the *Personal Globe Inventory* (PGI) and the *Career Decision-making Difficulties Questionnaire* (CDDQ) in Burkina Faso and Switzerland and observed that both instruments reach configural and metric equivalence, but that only the CDDQ reached scalar equivalence. This suggested that culture-specific norms have to be considered for the PGI.

Extra step. And the job done

Adaptation methodology, in general, ends when empirical studies address the evidence of construct equivalence, as well as the absence of method and item bias. However, in cross-cultural comparisons it seems important to increase accuracy of data interpretation in order to enrich and develop new methods of practice in the career psychology assessment. Blustein (2006) admitted a healthy future for testing in the design and delivery of counselling services, and “believe[s] that a significant role for a revitalized and culturally sensitive assessment process exists in expanding the reach and impact of our collective efforts” (p. 288). The role of testing and assessment in cross-cultural domains implies the design of new tools based on meaningful and culturally entrenched taxonomies, and the path is clear: not all constructs are universal, not all tests can be adapted to all cultural settings.

When assessing a person, it is important to consider what is relevant in his/her cultural setting. From this point of view, it is possible to sketch a frame for psychologists working in assessment contexts with adapted forms of psychological instruments. The most important aspect is that we have to consider the difference between the general knowledge of the instrument(s), for example, about psychometric characteristics and metrological qualities, cross-national norms comparisons, meaning of interpretation results, and so on, and the information that describes an individual belonging to a specific group; putting things this way, tests results are “viewed from an explicit cultural framework in which the meaning of the items and the nature of the scores is embedded within the cultural understandings of the client’s life space and worldview” (Blustein 2006, p. 286). To do so, an overall conception of relevant issues connected with the knowledge of culture is needed. The case of Elaine presented by Savickas following the career construction theory (see, Savickas 2004, pp. 60–68) could be used as an example. The theory of career construction “addresses how the career world is made through personal constructivism and social constructionism” (Savickas 2004, p. 43). It is assumed that the theory has a universal conception. Elaine’s problem is probably identical to other young college students around the western world, and all the steps done since the utilisation of *The Career Style Interview* (Savickas 1989) are applicable with success in a great part of the world. The problem resides exactly in contextualising and “melding subjective and objective assessment data to comprehend and co-construct each individual’s career path” (Hartung 2005, p. 389). Only a *connoisseur* of the American culture is qualified to interpret and integrate Elaine’s results of *The Career Style Interview*, vocational personality, career adaptability, and life themes into a contextualised career counselling process. Trying to adapt measurements may also induce meaningful redefinition of our constructs and promote innovation.

A second issue related with adapted measures in cross-cultural studies involves the applicability of the measures to individuals of diverse backgrounds. This issue summarises the 68 Standards specifically relevant to the assessment of multicultural and diverse populations (Association for Assessment in Counseling [AAC] 2003). Cross-national evidence is definitely an added value to test validation, but more research focused on determining metrological qualities of the measures with equivalent cross-cultural samples of diverse groups is needed: only new empirical evidence can demonstrate the relevance of the utilisation of cross-national comparisons. The point is not to succumb to the temptation of ethnocentrism interpreted as “a belief that one’s cultural ways are universally applicable in evaluating and judging human behaviour” (Baruth and Manning 1992, p. 156). Cultural differences may affect the expectations and produce several sources of qualitative interpretation biases; interpretation is only practicable if the utilisation of the assessment data conforms to available normative data.

The process of development or adaptation into Portuguese (Duarte 1995) of *The Adult Career Concerns Inventory* (ACCI) is presented. The ACCI assesses concerns with career developmental tasks in young and mature adults. The 61-item inventory yields scores for the career developmental stages of Exploration, Establishment, Maintenance, and Disengagement; and the sub-scale scores reflect developmental tasks within each stage (Crystallisation, Specification, Implementation, Stabilising, Consolidating, Advancing, Holding, Updating, Innovating, Decelerating, Retirement Planning, and Retirement Living). The 61-item instrument is a measure of the individual’s career change status assessed by responses to five items. The participants indicate for each task how much concern they feel currently, operationally assessed by responses to five items on a 5-point scale, from “no concern” to “great concern”. The ACCI scores indicate the planfulness dimensions of Super’s theoretical model of career ability (Super 1990). Planfulness is the individual’s skill to plan in a controlled way, a notion of self-esteem, and a strong awareness of the past for the preparation of the future. The reading level is established approximately at the eighth grade, although in specific situations it could be administered at lower levels of education.

The very first step for the Portuguese translation of the ACCI was as follows: a number of exercises and interviews were made in order to map the components of the dimension Planfulness, regarding behaviour and construct interpretation, and meaning of career concerns developmental tasks. The interviewees were psychologists, well versed in Super’s theory, models and concepts (Step 1).

After that, a draft translation was presented in a non-standard way. The procedure was to solicit all kinds of opinions from psychologist respondents on all items, comprehension level, interpretation of the instructions, and response alternatives. Also, opinions from a random sample of young adults, college students, and employees between 23 and 65 years of age were collected. The first translation showed inappropriateness of some item content (Van de Vijver and Hambleton 1996), particularly because of cultural adaptation. The decision not to use the occupational career fields of the original version was taken because of lack of correspondence with the Portuguese situation (Step 2).

Next, a field study was conducted in order to assess the acceptability of the translated items. This study was done with small samples, ranging from 60 to 175 participants, of male and female adult employees, of different age and occupational groups. Some problems of item formulation remained. This led to some adjustments to eliminate or re-adapt items leading to a different interpretation of the same statement (Step 3).

For the refinement of the adaptation process of the ACCI, the compatibility between the Planfulness dimensions (conceptual definition) and the operational definition measured by the ACCI (concerns with developmental tasks) was established by construct validity through correlational studies and factor analysis (Duarte 1993). The results indicated that the ranking of concerns followed the theoretical ordering and supported the original interpretation of the scores. But, only a partial conclusion can be made with respect to demographic data, the ACCI represents a clear and theoretical picture of relationships between career stages and sub-stages concerns and age (Step 4).

Construct validation implies empirical demonstrations: the criteria of construct-related validation used with the original version of the ACCI were applied to the Portuguese version. The results obtained supported the appropriateness of the theoretical model, with respect to assessment of career concerns development (Duarte 1993, 1995, 2005). The collected evidence supports the appropriateness of the theoretical model, with respect to assessment of career concerns development (Steps 5 and 6). However, the process of adaptation may also lead to new definitions of a construct and innovation.

Creating Culture Specific Measures

The psychometric procedures, such as metric and scalar equivalence, or other statistical procedures can only provide incomplete demonstration of equivalence, and do not complete the process of construct validation, nor cross-cultural construct equivalence in absolute terms. The development of instruments that are simultaneously created in several cultures could be a way for the implementation research in cross-national domain, and it can also be a way to determine national differences in the assessed variables, and/or identify specific and common international, and/or regional patterns, achieving added value and usefulness of assessment techniques.

The Work Importance Study Project (WIS) (1979–1989), under the international coordination of Donald Super (Super and Šverko 1995), constituted a very good example of ecological suitability in different ecological contexts (for more details see Duarte and Rossier 2008). The International Career Adaptability project (ICAP) (Leong and Walsh 2012) constitutes a good example of ecological suitability in different social contexts. The ICAP comprised a research project set up through an international team, and brought together researchers from 18 countries as follows: Australia, Belgium, Brazil, China, England, France, Germany, Hong-Kong, Iceland, Italy, Japan, Korea, Netherlands, Portugal, South Africa, Switzerland, Taiwan, and

U.S.A. This international team did not start by creating a measure in one country and “then translate it for use in other countries. Instead, they wanted to jointly make a measure” (Savickas and Porfelli 2012, p. 664) considering different cultural settings simultaneously to create *The Career Adapt-Ability Scale (CAAS)*. Briefly, the project began with a literature review trying to outline a conceptual framework of career adaptability that distinguished among adaptability, readiness, resources, responses, and results. After that, the team decided to continue in order to construct a measure of career adaptability resources. After, in *viva voce* meeting the group settled on an international measure, in English, and later translated for other native languages, composed of 44 items. A research methodology group designed the psychometric protocol: a series of hierarchical confirmatory analyses conducted to select 24 items that were relevant across all countries. “The results suggested that the CAAS measures the same construct across all countries, but that the CAAS does not reach scalar invariance, implying that norms have to be developed for each language version” (Rossier 2015, p.155). This also implies that latent mean level of adaptability cannot be compared across groups.

In order for a better understanding of how and why cultural context affects the construction of life, skilled test developers with personal knowledge of the culture within which they are operating should develop career instruments. Confronting theory, construct interpretation, and meaning in career management is a global enterprise toward building a fair society. Such confrontation can be translated into methods of research that focus more on integrating ideas on career measurement and on exploring relationships among such measures (Flores and Bike 2014; Watson et al. 2005). The search for what is common and specific across cultures is a way to achieve contextual meaningfulness.

New Perspectives

Van de Vijver and Poortinga (2002) clearly rejected the idea of description of the maximisation of cultural context. They emphasise the importance of abstraction in cross-cultural research together with the minimisation of cultural context. At least “as long as [it does] not make the behaviour studied incomprehensible or irrelevant” (p. 253). They reinforce the idea that only with a deep knowledge of daily contexts (it is assumed that daily context is related with the knowledge of beliefs, values, habits, symbols, expressions) is it possible to reduce culture to a set of centre variables for the construct and proceeding culture-comparative research. This rationale for abstraction is relevant in career psychology field, namely when career assessment is used and evoked. Career assessment was rooted and grew upon the ground of the individual differences and psychometric traditions in psychology, emphasising objective measurement of quantifiable person variables, normative standards, and verifiable realities (Arbona 2014). Nowadays, based on more integrative theoretical and career assessment approaches (e.g., Busacca and Rehfuss 2017; Savickas et al. 2009; Stoltz and Barclay *in press*), career assessment is not a cumulative

process of interpretation of the assessment data; instead, it integrates environment variables that, beyond adding incremental validity to the assessment process, consider also the cultural context. The relationship between a multi approach in counselling and recognising the plurality of contextual/cultural knowledge should take into account (Duarte 2017). In short, the notion of career assessment has different characteristics depending upon the cultural specificities. Dropping it out from core variables set (e.g., assessment infused within the career counselling process) diminishes its cultural meaning. In this way, it is possible to compare the effect of psychometric assessment, not reducing assessment (nor evaluation) to abstract generalities but connect it with the way of thinking in the different cultures, and put “the emphasis on contexts and culture” (Guichard and Lenz 2005, p. 26). The contemporary comprehensive approaches multi-source assessment taking into account the socio-economical context and the cultural of the counselees. This approach implies to go beyond the positivistic cross-cultural psychology and consider new alternative or complementary methodological principles, such as adding using a variety of methods and combining different approaches and sources of information to study psychological group differences.

Final Remarks, or the Need for Integrated Approaches

Changing contexts and competitive pressures force the demand for innovation in the field of cross-cultural testing and assessment activities. The importance of links between cultural background and individual’s (*idiographic*) assessment seems to be one of the cues. The integration of both etic (in the sense of universal, to a certain extent, universal in their applications, not as an *imposed* etic) (Berry 1969) and emic approaches or knowledge (providing the utilisation of assessment data) can encourage proactive and innovative forms of testing in an international context (e.g., Fetvadjev et al. 2015). Therefore, attention needs to be given to the context, both emic-etic conceptualisations of universal variables and culture specific criteria.

The establishment of cultural equivalence can be detected by a clear understanding of methodological procedures: methodological supplies for cross-cultural equivalence have their own rules, in the specification of the notions of equivalence, and the notions of bias. The challenge is the integration of the psychometric or psychological procedures for assessment in an international context, getting out from a “technocratic” perspective of knowledge (the assumption that tests are universal in their applications) to enter into the development of culture “networks” which encourage exchange and knowledge-sharing.

Critical attention should be given to the equity principle underlying non-discriminatory assessment. The purpose here is to take into account environmental factors within the assessment process in order to avoid any discrimination due to cultural factors. This goal is however difficult to reach knowing those societies themselves do not respect this equity principle. But several techniques, which sometimes imply to adopt a new perspective on testing and assessment, may help career

counsellors. Thus, combining a clinical and a psychometric evaluation might help to bring these etic and emic approaches into an assessment process. Moreover, equity in testing and assessment implies of course the use of multicultural counselling competencies by career counsellors (Collins and Arthur 2010). The available evidence tends to suggest that when using assessment techniques cross-culturally it is essential to develop a thorough understanding of the theoretical literature and of the empirical studies related with the psychological instrument, as well as the understanding of the “new” cultural context, or cultural competence for the understanding of the individual’s needs.

Incorporating Vygotsky’s (1987) historical conception of dynamic testing into modern psychology, in contrast with conventional or psychometric approaches used only to provide diagnostic information, an alternative and more integrative approach could be considered. Regarding the consequences of globalisation, in what seems to be the new societal needs, it is mandatory to recognise the desirability of a greater proximity to culture in testing, that is to say, the use of testing and assessment considering different cultural background. Cross-national evidence is an added value to test validation and could be used in the understanding of multi-faceted profile more adapted to local, regional, or countries situations.

The Work Importance Study project opened a gate for testing in an international context and demonstrated the applicability of measures developed across cultures. Twenty-First century, and following the path of Donald Super, an international team of vocational psychologists, crafted an operational definition for the linguistic conception of career resources. The future? Keep the gate open, considering scientific pertinence, ecological meaningfulness, societal needs, comparing results obtained with cultural diversified populations, developing non-discriminatory assessment devices. Testing and assessment in an international context focused on the appropriateness of the measures chosen on the basis of psychometric and cultural criteria; testing and assessment linked to intervention and encompassing the integration between the individual and the ecological context in order to help with knowledgeable counselling; testing and assessment as a form of testing hypotheses with cultural representative samples. In sum, testing and assessment in an international context is viewed as a teamwork task to achieve success in what concerns the analytical (analysing, comparing, and evaluating results), the practical (applying, utilising), and the creative (inventing and designing comprehensive research) issues in the field of career guidance.

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Chapter 29

Career Maturity Assessment in an International Context



Mark B. Watson

Abstract This chapter describes the development and adaptation of career maturity within the context of macrosystemic influences. The chapter initially describes the historical context within which the construct of career maturity was developed and the modernist times that the construct reflected. A review of research illustrates how this initial construct of career maturity has been challenged over time. In particular, the westernised and middle class foundations of career maturity have resulted in questions about the relevance and validity of the construct, particularly in relation to multicultural and post-modern contexts. In addition to issues such as cultural relativity and cultural validity, the chapter describes issues of cultural specificity and the psychometric issue of conceptual equivalence. The chapter concludes by considering how the construct of career maturity has adapted in recent decades as well as the need for it to further adapt.

Keywords Attitudinal career maturity · Career maturity · Cognitive career maturity · Cultural relativity · Cultural specificity · Cultural validity

The Xhosa-speaking people of South Africa have a saying, *xa umculo utshintsho nomduda uyatshintsha*, which means that when the music changes so does the dance. The saying provides an appropriate metaphor for describing the development of the construct of career maturity and its assessment since its introduction over 60 years ago (Super 1955). This chapter describes the development and adaptation of career maturity against the macro factors that changed the musical score to which it danced. The first section of the chapter describes the historical development of career maturity and its assessment within the modernist times in which it was conceived. The second section describes factors that changed the tune, with a specific emphasis on the relevance and validity of transporting career maturity from its westernised, middle-class, modernist roots into multicultural, post-modern contexts. This section raises issues of cultural relativity, cultural validity, cultural specificity,

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as well as psychometric issues concerning conceptual equivalence. The third section of the chapter considers how career maturity and its assessment will need to adapt if it is to stay in step with the present times within which individual career development takes place.

The Development of Career Maturity

Development of the Construct

The development of career maturity (originally termed vocational maturity) reflects the movement of career psychology from a pre-modernist to a modernist perspective of career behaviour. Within that perspective there was a shift over time from a singular, point-in-time definition of career readiness towards a more flexible, process-oriented definition that emphasised the developmental nature of an individual's career behaviour and the fact that different types and levels of readiness are appropriate for different developmental ages and stages. Thus, career maturity needs to be understood in terms of its systematic relationship to time (Vondracek and Reitzle 1998), with different stages of development requiring the successful completion of age appropriate tasks. Career maturity (or career developmental readiness) requires that an individual complete the following attitudinal and cognitive developmental tasks: gain an appropriate knowledge of self; gain an appropriate knowledge of careers; be able to integrate the knowledge of self and careers; demonstrate effective career decision-making; and be able to plan for a career.

To understand career maturity as a construct one needs to consider the historical context in which its conceptual development occurred. The construct of career maturity was by and large contextually sensitive to the times in which it was developed. As a construct it reflected the stable and orderly work world of the middle of the last century (Savickas 2005). It was a time when the Protestant work ethic was dominant, when the career choice process was largely defined as occurring in late adolescence, and when career research was predominantly focused on white, western, middle class and male samples. In short, it was an appropriate construct for the realities of the work world of that time. It was also a time in which modernist perspectives of career psychology were the norm, a time when it was believed that individuals' test scores represented a way forward in understanding their career development.

This meant that career maturity could be operationalised and assessed and that individuals could be compared with others in the same developmental stage. Super's (1984) extension of the construct of career maturity in later years allowed for this comparison to be made across the lifespan. It should be noted that Super (1955) also originally proposed that an individual could be interpreted ipsatively but, as Patton and Lokan (2001) pointed out, most research and development of career maturity has focused on a normed interpretation of the construct. As will be seen in later

sections, an ipsative comparison would allow for a more qualitative assessment and a contextualised exploration of an individual's career maturity.

If career maturity was appropriate for the work context of the last century, it has been increasingly criticised as less appropriate for the changing world of work in which individual career development now occurs. Vondracek and Reitzle (1998) made the important point that any stage-based model of career development that also has a matching component rests on at least two assumptions that are questionable for the present times: appropriateness and stability. A career development stage model implies that there are age-appropriate transition times between stages, while a matching model implies that there is sufficient stability both within the individual and the context. Both these assumptions are challenged by an increasingly complex and transient work world in which it has become harder to define universal transition points (Busacca and Rehfuss 2017a). This applies to westernised and non-westernised contexts. Rather than predefined normed changes, the construct of career maturity now needs to address constant change as a norm in itself.

Complicating this picture is the fact that for many cultural groups, opportunities, economic conditions and the cultural perspectives of the family can impact negatively on their career development. The conception of career maturity as representing what Vondracek and Reitzle (1998) refer to as “some internal clock, some timekeeper” (p. 7) fails to sufficiently accommodate factors external to the individual that may prescribe to such ontological development. As Savickas (1995) stated, “context not only matters, but it is an integral part of career development” (p. 34). Failure to be contextually sensitive emphasises another criticism of career maturity as a construct—that it is value-laden in that it prescribes what the norm for career maturity should be. Despite criticism of career maturity lacking universal meaning, Hackett and Watkins (1995) have noted that there has been consistent and often useful research of the construct.

Research and Measurement

Research on career maturity as a construct and on its assessment tools has been continuous for over half a century. There have been various reviews of this research (e.g., Niles 1998; Patton and Lokan 2001; Savickas et al. 1984; Swanson and D'Achiardi 2005) and the reader is advised to refer to these sources for greater detail. Much of this research has focused on construct validation and the correlation of career maturity with diverse variables. Research has focused on intrapersonal variables such as gender, socioeconomic status, vocational identity, career decision and indecision, work role salience (Patton and Lokan 2001) and personality (Raskin 1998).

There is a lack of consistency in both American and international research of the possible correlates of career maturity such as age, gender and socioeconomic status. Age differences in career maturity development may be dependent on the type of career maturity studied (i.e., attitudinal or cognitive) and by contextual factors such

as the prescribed decision points of formalised education. Thus, while career development theory would imply chronological career maturity development, Patton and Lokan's (2001) review suggests that this may occur more with attitudinal than cognitive career maturity. The relationship of age and educational level to career maturity is discussed further on in this section.

Similarly, the research on gender and career maturity has produced inconsistent findings dependent on the type of career maturity (i. e., attitudinal or cognitive) investigated. While most research indicates that females are more career mature than males, this gender difference may be more evident for cognitive than attitudinal career maturity (Patton and Lokan 2001). Age may be a moderating variable in gender differences in career maturity, with gender differences evident at high school level no longer evident at college or university level (Whiston and Brecheisen 2002).

The relationship between socioeconomic status and career maturity seems less significant, both in high school and college age populations (Patton and Lokan 2001). Again, where a relationship has been established, this may be dependent on the type of career maturity being researched. Thus, socioeconomic status has been reported as related to the cognitive scales of career maturity measures. The confounding of cultural variables with socioeconomic status is discussed elsewhere in this chapter.

The inconclusiveness of research findings on possible correlates of career maturity is generally recognised. Patton and Lokan's (2001) comprehensive review of research in this field concluded that the difficulty in establishing significant trends can be attributed to the lack of systematic research, the research methodology employed (most frequently cross-sectional) and the limited nature of the sampling (usually convenience samples of small size).

Understandably, given the sequential, developmental nature of career maturity, there have been several attempts to relate the construct to time, specifically to age and educational level. Savickas et al. (1984) concluded that time perspective is a critical variable in career maturity. Over a decade later, a special section of *The Career Development Quarterly* (Niles 1998) examined the issue of timing in terms of individuals' interactions with their context. This latter reference represents a movement from construct validation within a modernist perspective, with its focus on the interrelationship of theoretical variables, towards attempts to relate career maturity to the contexts (cultural, educational, historical and socioeconomic) that impact on the individual's readiness to make a career choice.

While Patton and Lokan (2001) noted the sustained momentum of career maturity research, they also criticised most of this research as being unsystematic and difficult to generalise because of limited sample sizes. There has also been consistent reinforcement for Super's (1990) earlier call for validation of the construct (Swanson and D'Achiardi 2005). It would seem that career maturity finds most support in maturational contexts, that is in contexts that provide individuals with the opportunities and stimulus for career development. Clearly, the more congruent the career culture is to the theoretical underpinnings of the construct the more supportive research findings are of the construct. It is a different matter when cultural

contexts differ considerably from the western, middle class roots of the construct as will be seen in the next section of the chapter.

Research that has focused on career maturity measures remains inconclusive and even controversial. Swanson and D'Achiardi (2005) concluded that over 40 years of such research using a wide variety of career maturity measures has largely been unsatisfactory. At the core of this concern is the construct validity of the career maturity measures. Swanson and D'Achiardi cited research that indicates that career maturity measures do not assess career development tasks and transitions but rather intellectual ability. Patton and Lokan (2001) expressed similar concerns in their review of research on several career maturity measures. They reported numerous psychometric issues related to Crites's (1965) original Vocational Development Inventory and its revision, the Career Maturity Inventory (Crites 1978). Further, Hackett and Watkins (1995) pointed to the fact that little has been done to address concerns raised by Savickas (1990) about the construct validity, criterion-related validity, convergent and discriminant validity of the Career Maturity Inventory's Attitude Scale.

There have been similar concerns raised about Super's Career Development Inventory (Super et al. 1981). Savickas (1990) called for research on the criterion-related validity of the inventory's scores as well as attempts to increase the scales' reliability. Hackett and Watkins (1995) concluded that the reliability and stability of the inventory's scales are questionable. This is particularly the case when career maturity measures are used in cultural contexts that differ from the ones in which they were developed, as will be seen in the following section. Since this chapter in the first edition of the International Handbook of Career Guidance in 2008, research on the concept and measurement of career maturity has lost momentum (Sharf 2013) or has evolved into other definitions of career readiness (Watson and Stead 2017). In a review of 25 years of the Career Development Quarterly annual reviews from 1988 through to 2012, Sampson et al. (2014) analysed the headings and sub-headings used in these reviews and established that 'career maturity/adaptability' was ranked bottom out of 25 headings and subheadings.

Cultural Challenges to Career Maturity

Cultural Challenges

Much has been written on the macro-changes that occurred in the world of work and their impact on career psychology as a discipline. This section describes how cultural factors have challenged the predominant modernist conceptualisation of career maturity whose definition and operationalisation as an assessment tool occurred at a time when the dominant cultural perspective in career psychology was western, middle class and largely male. This definition offered a singular interpretation of career developmental constructs to which all individuals were adapted—a "grand

narrative” (Savickas 1993, p. 211) for all. As such, the construct of career maturity was de-contextualised in terms of the diverse cultural groups to which it was applied. In this regard, Vondracek and Reitzle (1998) made the common-sense point that “career maturity, as well as career development in general, have meaning only in relation to the contexts and historical time in which they are observed” (p. 14).

Super himself was amongst those who recognised that the challenge of multiculturalism has not been adequately addressed. In an interview conducted in 1993 (Freeman 1993) he posed the question as to what career might mean within different cultures and reflected that:

Career development, for example, in some of the African and South Asian countries that I know is really a matter of fitting into what the family wants, what the family needs. But generally our notions of career development are somewhat different. (p. 263)

Super’s comment suggests that career counsellors and researchers who work in culturally diverse contexts need to explore the universality or not of the career constructs they might adopt and adapt. There are those who would argue that career constructs are not universal and that career assessment is a psychosocial process in which individuals are compared to externally defined criteria such as career maturity (Watson et al. 2005). This argument suggests that the generalisation and assessment of career maturity across different cultural groups may not be possible (Evans and Kelchner 2017). It raises the issue of construct equivalence; that is, whether a construct like career maturity is meaningful to an individual’s cultural perspective (Leong and Gupta 2008).

There has been considerable comment on the construct equivalence of career maturity. At a symposium that addressed the cross-cultural application of career maturity and other measures, delegates pointed out that construct equivalence should not be equated with linguistic equivalence (Watson et al. 2005). It seemed that the main focus in most countries adopting American career measures has been on normative, scale and linguistic equivalence. There was general agreement that construct equivalence was a primary and urgent psychometric issue but that it took a secondary, post-hoc position to other forms of equivalence.

Construct equivalence is not the only consideration. Leong (1991), Leong and Brown (1995), and Leong and Serafica (2001) provided structure to the discussion of career maturity assessment in different cultural contexts by identifying three more critical constructs: cultural relativity, cultural validity and cultural specificity. Cultural relativity suggests that career counsellors and researchers explore how cultural differences may impact on the understanding of what constitutes career maturity within a specific culture. When this exploration is psychometric in nature it requires differentiation between the two constructs of cultural validity and cultural specificity. Cultural validity can be defined as the process of validating the use of westernised career measures on other national groups by means of construct, concurrent and predictive validity. It is, in a sense, a post-hoc approach as one starts with an established measure and then explores its cultural goodness of fit. This has been the predominant approach in career assessment research in different cultural contexts. Cultural specificity, on the other hand, explores concepts and constructs

that may be specific to a cultural group. It is a more grounded approach as it seeks to explore the specific career perspectives of a particular culture. The lack of sufficient focus on cultural specificity may reflect on practical research issues such as the limited resources in most countries to address this issue (Watson et al. 2005).

There are several assumptions inherent in career maturity measures that are problematic when considered in different cultural contexts. One assumption is the conception of an age-related maturation process that does not accommodate some cultural beliefs in a specified point in time for maturation that is ceremoniously endorsed (Watson 2006). Before this time, adolescents are not expected to think of adult responsibilities such as future employment. A second assumption is that there can be linguistic equivalence for westernised constructs. This becomes problematic in cultures where there is no language to describe a construct or where there are several words that describe a construct differentially. Take, for example, the Xhosa-speaking people of South Africa who have four words that relate to the meaning of work alone. A third assumption in career maturity assessment is that independent thought and planning, individual achievement and a general self-sufficiency are valued aspects of career development readiness. These aspects all emphasise an individualistic perspective and become problematic in cultural contexts that emphasise a collectivist perspective.

This third assumption has been much discussed in the career literature, not only in terms of individualism and collectivism but also in terms of independence and interdependence (Hardin et al. 2001). While individualism and independence have been considered key terms in the definition of career maturity, many cultures promote a belief in collectivism and interdependence (Hartung et al. 2010). Clearly one needs to be careful of overemphasising (Savickas 2003) or oversimplifying (Stead 2004) this dichotomy. Nevertheless, this remains a consistent theme in the career literature. An example of this is Black South Africans, most of whom subscribe to a collectivist definition of self (Watson 2006). This is illustrated in the Xhosa saying, *intaka yakha ngoboya bezinye*, whose literal translation is that a bird builds with other birds' feathers. Thus, all people are interdependent; it takes a village to raise a child. This is evident in the reflections of a 20-year-old Xhosa-speaking female on her career decision-making process:

At the age of 18 I knew exactly what I wanted to become and my mind was made up. I remember talking to my uncle about becoming a psychologist. He was against it. In his view he told me that psychology and social work were the careers of white people. He said to me, "Do you know any black psychologist?", and at that time I did not know any. I said no. He said, "Have you ever asked yourself why it is like that?" and I said "Because black people were only allowed to do either nursing or teaching during the apartheid era". He told me that I should do medicine because it was the best.

A collectivist concept of self places the locus of self externally, as the point of contact with other people. This has implications for career development in that the decision-making process is much influenced by significant others, resulting in a decision that is more external than internal in its locus of control. While this belief could result in a low score on a career measure, Hardin et al. (2001) suggested that higher interdependence should not be viewed as an inherent deficit. Embedding

one's career identity within one's family and community may represent culturally appropriate career maturation (Akhurst and Mkhize 2006; Watson 2017) and collectivist decision-making may represent career maturity rather than developmental lag (Watson 2006).

This discussion on cultural contextualisation suggests that the prevalence of American career theories and measures remains a significant challenge to the international community (Watson et al. 2005). It has represented a mono-directional rather than an interactional influence. Yet career psychology could gain from exploring how counsellors and researchers from other cultures interpret and assess career constructs such as career maturity. As Watson et al. stated, such interaction could demonstrate that similar ends can be achieved in different ways.

Research and Measurement

The career literature identifies career maturity as a continuing source of controversy when applied in multicultural contexts (Worthington et al. 2005). The issue of cultural challenges to career maturity and its assessment has been identified by Patton and Lokan (2001) as contributing to the invigoration of career maturity research and the reader is referred to several reviews of this extensive body of research (Leong and Serafica 2001; Patton and Lokan 2001; Watson and Stead 2006; Worthington et al. 2005). Several themes emerge from these reviews. One theme is the limited nature of this research, with its predominant focus on American ethnic minority groups and its limited focus on cross-cultural comparison studies.

Another theme is the consistent finding that when non-westernised cultural groups are compared to westernised groups they invariably record lower career maturity scores. There is probably a confounding of socioeconomic status with culture in these studies. Most of the studies reviewed concluded by querying the validity of assessing career maturity on the cultural group sampled. Consistent with the theoretical discussion of individualism and collectivism, research suggests that the definition of independence is too unidimensional and does not accommodate the interdependence evident in collectivist cultures. Research has also found that cultural differences moderate the meaning of career maturity. This has led to the call for within-group research rather than comparative research in order to establish what the developmental trends in a cultural group are. Such a call also applies to career practice where Busacca and Rehfuss (2017b) and Patton and McMahon (2014) call for career counsellors to use clinical judgment and subjective interpretation of psychometric scores rather than the comparison of clients with normed and referenced groups. There has also been research that has established that career maturity is influenced by macro-contextual factors such as social and political systems and that career maturity may be influenced by the interaction of the individual with these contexts and circumstances.

Concomitant with this body of research has been psychometric research on career maturity measures. This has also been reviewed in the four reviews referenced

earlier. Most studies concluded that there is insufficient psychometric evidence to support the use of established career maturity measures on diverse cultural groups. Several researchers have pointed to additional developmental tasks that may be required in different cultures that westernised career measures do not tap. In short, the call has consistently been for the revision of what career maturity measures assess or the exploration of alternative forms of assessment.

Some researchers have suggested an ipsative and more qualitative interpretation of career maturity measures rather than their dismissal. Others have suggested that the reformulation of the item content within an interview structure may address concerns about construct equivalence. These suggestions do not seem to address the central issue that one may be starting from the wrong conceptual base. They raise the basic question as to why one would use test items that emphasise individualism when confronted with a collectivist client. This leads to the more critical question of whether the construct of career maturity as it is defined within modernist career theory can be adapted in a more culturally sensitive manner. The next section considers this issue and explores the significant work that Mark Savickas has written in this regard.

The Adaptation of Career Maturity

Changes in the Construct

A good starting point to this section of the chapter is Savickas's (1993) simple statement that "yesterday's solutions are today's problems" (p. 207). Clearly career maturity as a construct is out of step and there is a need to re-evaluate its usefulness and how it has been assessed. A singular understanding of career maturity is no longer possible in the multicultural contexts in which career counselling and assessment must occur. The present author also queries the adaptation of the standard items of career maturity measures for multicultural use. Such suggestions do not sufficiently tackle the core challenge to the construct; that is that it represents a modernist, normative perspective of individual career development that is no longer valid. In addition, the term maturity itself suggests a value-laden interpretation of career development that fails to address the meaning of what constitutes maturity within different cultural settings.

The Xhosa-speaking people of South Africa have a saying, *akukho nto itheni ebonga theni*, which means that there is nothing new under the sun. So it is with Savickas's (1997) proposal that the construct of career adaptability replace that of career maturity. It brings the construct of career maturity and its assessment full cycle, back to earlier formulations of Super's (1984) in which he called for the reconstruction of career maturity to career adaptability and the recognition of the influence of contextual factors. This proposal reflects on the present broader movement within career psychology from a modernist to a postmodernist perspective.

Thus it seems appropriate to consider the implications of replacing career maturity, specifically given the cultural challenges to its present utility. As Savickas (1997) stated: “the cultural climate for switching from maturity to adaptability seems right” (p. 255). There has been considerable endorsement of career adaptability as a more contextually rich construct than career maturity.

The challenge for career psychology has been to conceptualise what constitutes meaningful and mature behaviour in different contexts and whether there is a construct that can be applied across developmental ages, in different life roles and within different cultural contexts. Career adaptability describes a more holistic meaning to developmental career readiness. It suggests that an individual should be able to change in order to meet change; that career readiness represents an ongoing process of changing to meet contextual circumstances rather than a maturation of prescribed behaviours. This incorporation of adjustment to change helps move the earlier concept of career developmental maturation away from its linear roots and its predictable, formalised developmental tasks.

Savickas (1997, 2002, 2005, 2012) has argued that Super’s career developmental theory will become more integrated if career adaptability rather than career maturity becomes its central construct. Proposition 14 of career construction theory (Savickas 2002) provided a definition of career adaptability in terms of the individual’s readiness and available resources to cope with present and future tasks of career development. Career readiness still remains a central concept in this proposition but the definition also includes the concept of adaptive fitness in terms of an individual’s attitudes, beliefs and competencies. Watson and Stead (2006) have commented on the potential of the concept of adaptive fitness for use in multicultural contexts, particularly as it acknowledges that individuals need to construct their career development within multilayered macro and micro contexts that include, amongst other factors, their culture, race and ethnicity.

Research and Measurement

Patton and Lokan (2001) identified the debate around the reformation of career maturity as contributing to a resurgence of research in this field. This body of research focused on the middle part of the continuum described in the conclusion to the chapter in which career counsellors and researchers seek to renovate the construct of career maturity so that it better reflects on the post-modern perspectives that have developed within the discipline. The career literature on newer constructs that would replace career maturity, such as career adaptability and the embedded perspective of Blustein and Noumair (1996), remains more theoretical and conceptual, with the continuing development and refinement of these constructs for two decades (e.g., Savickas 1997, 2002, 2005; Savickas and Porfeli 2011). However, research on these alternative constructs and their assessment is still at a developmental stage. In addition, the subjective, qualitative and often narrative nature of post-modern concepts of career readiness do not translate as readily into formalised

research as objective, quantitative modernist career measures do. For instance, most major career texts devote space to the description of career narrative approaches but report little related research. The very nature of post-modern career theory, practice and assessment, as well as its present stage of development, calls for discussion at a process rather than a definable research level. In essence, post-modern career constructs will not be as measurable as career modernist constructs were, with the consequence that literature in this field often includes case study material. Perhaps post-modern shifts in the conceptualisation of critical concepts such as contextualised career readiness will result in less of the quantitative research which has dominated the career literature in the past and move the discipline towards more qualitative research and assessment in the future. If it does, we may not evidence the proliferation of research that quantitative assessment so readily stimulated.

Shifting the construct of career readiness towards a post-modern understanding has assessment implications. Career maturity is a modernist career construct whose assessment has provided structured boundaries and definition to the career counselling and research process. The construct has been used by career counsellors to help make objective what is increasingly being viewed as a subjective experience. The movement in career psychology towards postmodernism requires the counsellor to deconstruct the results of career measures within the realities of their clients' contexts (Watson 2006, 2017). An example of such deconstruction and indeed reconstruction is Savickas and Porfeli's (2011) revision of the Career Maturity Inventory in an adaptability form. The utility of deconstructing established career measures needs further debate in the literature. Career measures themselves are constructed within a certain cultural framework and the further that framework is from the career client, the greater the deconstruction that may be required. Watson (2006, 2017) questioned at what point deconstruction of a career measure invalidates the construct that the measure supposedly assesses.

What are the alternatives to psychometric assessment? One is that measurement becomes narrative. Savickas (2002) suggests a structured interview for the assessment of career adaptability. He has provided four questions for career counsellors to use that explore and assess the client's adaptability: career salience (the importance attached to the work role in relation to other life roles); decision-making strategies and career control (self-determination beliefs, decisional competence and compromise); career coping strategies (career convictions and decisional style); and problem solving skills and career confidence.

Conclusion

There seems to be broad consensus that career developmental constructs need to pay greater attention to contextual factors that may impact on them. There is less agreement on what to do with the specific construct of career maturity. Opinion seems to vary along a continuum from those who promote its continued use in diverse cultural contexts to those who call for its replacement (Savickas 1997, 2002,

2005; Vondracek and Reitzle 1998). In between are those who propose an eclectic compromise in which career constructs can be renovated and career maturity measures can be interpreted from a post-modern perspective. This chapter aligns itself with calls for its replacement rather than continued efforts at establishing the viability of career maturity. The music has changed, so should the dance.

There are, however, questions that need to be considered in the replacement of career maturity. One is the extent to which general career developmental principles would still hold in any reformulation of the concept of career readiness. Savickas (2005) would argue that certain competencies still determine any redefinition of career readiness. Similarly, Patton and Lokan (2001) believed that there are critical developmental principles that Super proposed that need to be accommodated in the reformulation of career readiness.

Reformulation needs to be considered at a theoretical and an assessment level. There are several innovative theoretical concepts and models that would assist in redefining career readiness and in integrating contextual factors such as culture with individual career development. Besides Savickas's reformulation of Super's construct of career adaptability, Blustein and Noumair (1996) suggested that an embeddedness perspective would help "nest psychological constructs into a broad context that combines social, cultural, historical, intraindividual, and organizational influences" (p. 437). The latter authors believe that an embeddedness perspective would encourage career counsellors and researchers to prioritise the relational and cultural aspects of an individual's career development. There are also theoretical models that place contextual factors at the centre of career development and, thus, individual career readiness. One such model is the developmental-contextual model of Vondracek et al. (1986). Another is the systems theory framework of career development of Patton and McMahon (1999, 2014).

While the construct of career maturity can be theoretically de-constructed and re-constructed in order for it to move from a modernist to a postmodernist perspective, it remains debatable whether the present assessment of career maturity will suffice in the multicultural contexts within which career development occurs. Such quantitative assessment contains item content that is firmly embedded in modernist thinking and which fails to sufficiently recognise contextual and systemic factors.

There is a need for career counsellors and researchers to constantly adapt their understanding of career readiness in order to be in step with the realities of the contexts within which their clients' and research participants' career development occurs. Savickas (2005) viewed career counselling as a safe place in which a client's career narrative can be edited. To change the metaphor, we need to see clients dancing on the realities of their own dance floors rather than put them through prescribed dance steps on a stage that we have created.

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Chapter 30

Interest Assessment in a Cross-Cultural Context



Chun Tao, Saurabh Gupta, and Terence J. G. Tracey

Abstract The assessment of interests has served as the cornerstone for the field of vocational psychology in helping individuals learn about themselves, the world of work, and make occupational and educational decisions. While interest models have been developed and well assessed in the United States, the application of these models and associated measures to other cultures can involve many problems that require careful evaluation and interpretation. This chapter focuses predominately on the issue of cultural equivalence. We first highlight the considerations of construct equivalence in cross-cultural research generally and in interest assessment specifically, followed by a review of major models of vocational interests and their cross-cultural applications. Overall, the literature on measures and models are not supportive of construct equivalence of RIASEC scales across cultures. Gati's model appears to have more cultural equivalence but this is possibly attributable to its relative simplicity. There is promising support for cultural equivalence of the Personal Globe Inventory, assessing interest based on the spherical model, but more work is needed to examine the validity of this measure and model. Finally, implications of structural differences and interest assessment across cultural contexts are briefly discussed.

Keywords Vocational interests · Cross-cultural assessment · Cultural equivalence
The assessment of interests has served as the cornerstone for the field of vocational psychology, especially in the United States, for the better part of a century. Interests have served as crucial information in helping individuals learn about themselves, the world of work, and make occupational and educational decisions. At least with

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respect to the United States, the assessment of interests has been well done and rivals assessment in most any area of psychology (Fouad 1999). Given this, it is not uncommon for these interest instruments to be used in other cultures. While such applications can be cost effective, the problems involved in applying models and measures created in one culture to a different culture have received ever increasing attention in the literature (e.g., Ben-Porath 1990; Berry 1989; Buss and Royce 1975; Irvine and Carroll 1985; Prediger 1994). The issues involved in cross-cultural measurement are many and they continue to make application difficult. Care must be taken to thoroughly evaluate any application. This chapter will focus predominately on the issue of cultural equivalence, as it is easily misunderstood. We first highlight the considerations of construct equivalence in cross-cultural research generally and in interest assessment specifically, followed by a review of major models of vocational interests and their cross-cultural applications, and a brief discussion on implications of structural differences and interest assessment across cultural contexts. The terms cross-cultural and international are used interchangeably but it is recognized that cultures can often be more specific than nationalities. Examples are the diverse ethnic cultures within the United States. So, the discussion is not limited, nor should it be, by examining only national differences and similarities.

Construct Equivalence in Cross-Cultural Assessments

A common approach to cross-cultural assessment is where a measure is developed in one culture, then translated into the language of a second (or adapted to another context if the language is the same) and administered in that second culture. The scores of the sample in the second culture are compared to those obtained in the first culture and conclusions are drawn about similarities and differences made (e.g., interest scores in the arts are higher in the second culture). However, unless the measures are equivalently representing the same underlying construct, such comparisons yield inaccurate conclusions. Artistic interests in one culture may not at all look like or be similar to those in another and thus the comparison of scores is invalid. Another common application is that a measure is translated and used in a second culture to investigate the relation of the construct with another construct (e.g., is there a relation of artistic interests and occupational choice?). In this case, both the measure itself (artistic interests) and the behaviour it is intended to predict may be very differently manifested in the second culture. Again, any conclusions made may be invalid given any of these possible and unexamined measure differences.

A central component in any cross-cultural assessment is thus *construct equivalence* (Hambleton 2005; Harkness 1998). Can it be claimed that the construct is equivalently represented across different cultures? This is a central and often overlooked aspect. It is very common for measures developed and based in one culture to be administered in another culture with the implicit assumption that this administration is equally valid. In many cases, this involves translating one instrument

into another language. Even with very careful attention to issues of translation, there is no assurance that the same construct is being equivalently represented. For example, applying a three-factor measure of happiness originally developed in U.K. to Iran with linguistically equivalent translation, the construct of happiness was found comprised of six factors instead of the original three—life satisfaction, joy, self-esteem, calm, control, and efficacy (Liaghatdar et al. 2008). Indeed, this is true even in contexts where there is no language change but that there is a cultural difference (e.g., different ethnic groups in the U.S.). Without explicit examination of construct equivalence, it is likely that inappropriate measures may be applied that would yield misleading results. Construct equivalence, however, is never something that is demonstrated; rather, it is something that is approximated with continued work. Providing support for the construct validity of any measure involves providing a case for the theoretical basis of a scale using the nomological net (Cronbach and Meehl 1955), wherein certain theoretically defined relations (both convergent and divergent) are supported. This is not an easily accomplished process in one culture and it becomes more complex when cross-cultural examination is involved.

The determination of construct equivalence involves a dynamic tension between etic and emic issues, where etic refers to aspects that apply across cultures (more universalisms) and emic refers to aspects that are specific to individual cultures (Berry 1979). Etic examinations involve examination of the generalisability of a measure in other cultures involving questions of both intra-measure relations (e.g., Does the measure have similar structural relations in other cultural contexts?) and extra-measure relations (e.g., Does the measure have relations to other measures of similar magnitude?). Construct equivalence can be evaluated to the extent that both intra- and extra-measure examinations provide similar answers across cultures. However, failure to find similar patterns in measures across cultures does not necessarily indicate that the construct is not appropriate in cross-cultural contexts. Lack of a measure's construct equivalence could be indicative of either an inappropriate construct or an inappropriate operationalization of the construct. Translating items from one measure into another language or context may not produce equivalence because the items are not the most appropriate for the second culture. The construct still may apply but better items, more in line with the specific culture may be needed. So, it is very possible that construct equivalence can be established with very different items and scales, each uniquely suited to a particular culture (i.e., emic issues). Constructs can be equivalently represented with very different measures.

These issues make it especially difficult to establish construct equivalence of any measures. In this chapter the focus will be mostly on the simpler aspect of construct equivalence, that of structural similarity. If the intra-measure relations (i.e., structural relations) are similar across cultures, one has some support for the equivalence of the construct. It should be noted again that construct equivalence across cultures is never something that is concluded but it is something that is ever approximated.

After this very brief introduction to issues of cross-cultural examination of construct equivalence, attention is given to interest assessment. Most of the interest measures, models, and constructs have been developed and researched in the United States.

Holland's Typology

Holland's (1973, 1985, 1997) theory of career choice is the most widely studied and influential theory of vocational interests in history (Borgen 1986; Swanson and Gore 2000; Tracey and Rounds 1993), and it remains a cornerstone of theory development and career counselling practice. Holland's is considered a person-environment typology (Rounds and Tracey 1990), which articulates some broad, defining principles. First, people and environments can be classified according to six categories or types: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Second, individuals, for whom these measured categories are said to constitute work personalities, tend to seek work environments that capitalize on these traits. Lastly, work performance is a product of the interaction between a person's work personality and the demands and rewards of the workplace environment (Swanson and Gore 2000). Among several extensions of this theory is the notion of congruence, which is an index of the degree of fit between a person's work personality type and the demands and rewards of the work environment. The aim of career counselling in the vocational decision-making process is to guide exploration of careers that correspond to a person's vocational type. This is presumed to facilitate career satisfaction (Tranberg et al. 1993) and achievement (Assouline and Meir 1987). However, the validity of these assumptions has not been free of controversy. Notably, Spokane (1985) touched off a debate with the assertion that measures of congruence (for a review see Brown and Gore 1994) were rather poor predictors of academic and career outcomes. Several years later the debate continued in a special issue of *Journal of Vocational Behavior* (Tinsley 2000) devoted to various reviews and theoretical and empirical analyses of the person-environment fit model. However, recent work both with very large samples of college students (Tracey and Robbins 2006; Tracey et al. 2012) and meta-analytic research (Nye et al. 2012, 2017) has demonstrated a strong relation between interest congruence and performance. Also, Wille et al. (2014) demonstrated the stability of the congruence-performance relation over 15 years. Hence the support for the congruence-performance relation allays these initial concerns. The person-environment model and congruence constitute the foundation upon which the contemporary practice of vocational guidance is built. With this basic framework in mind, attention can now be turned to the various structural models that represent distinct uses of Holland's typology, with associated theoretical and practical implications.

Holland's Hexagonal Structure

Holland (1973, 1985) articulated a structural hypothesis, which takes the shape of a hexagon, with the six RIASEC types located at the vertices of the polygon as seen in Fig. 30.1. It is often interchangeably referred to as a circular structure because, as

Fig. 30.1 Spatial representation of Holland's and Gati's models of RIASEC types

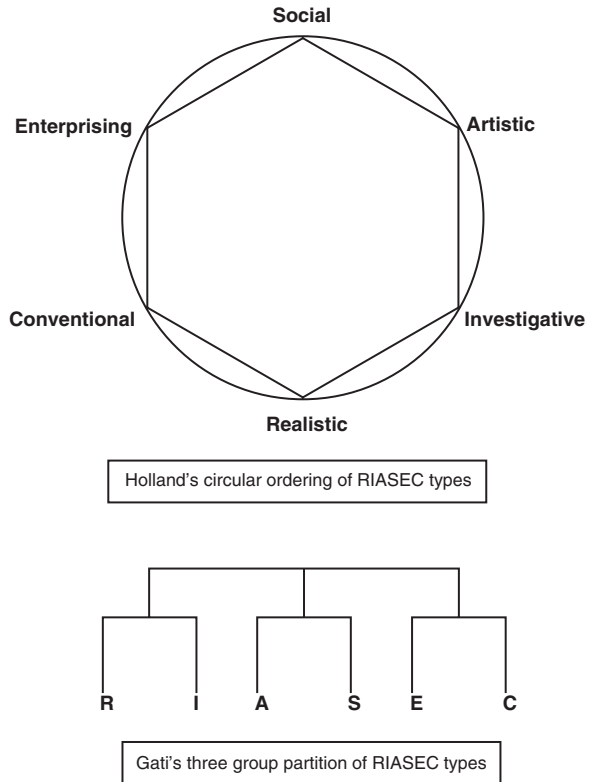
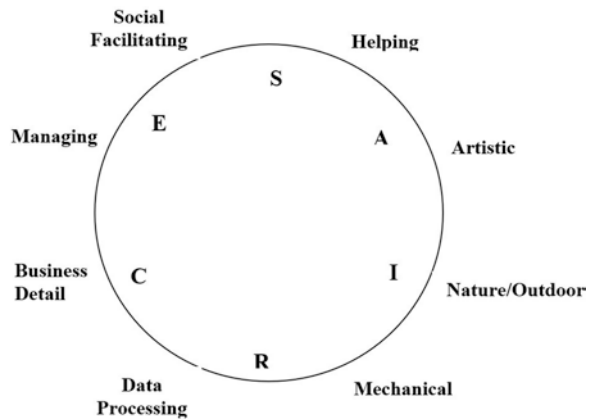


Fig. 30.2 Circular arrangement of PGI octant's along with RIASEC types



can also be seen in Fig. 30.2, a circle can be super-imposed onto the equilateral hexagon, with the types distributed equally (every 60° apart) around it. Holland's hexagonal structure has meaning for the theoretical relations among the variables in the model. The relative proximity among the types in the model reflects the strength

of their relations. This also implies a specific ordering of variable relations in the model. For example, the correlations between variables adjacent to one another in the model (R-I, I-A, A-S, S-E, E-C, and R-C) should be greater than variables in alternate relation to one another, or one step removed (R-A, I-S, A-E, S-C, E-R, and C-I). Further, variables in alternate relation to one another should be more highly correlated than those variables that oppose one another on the structural model (R-S, I-E, and A-C). Finally, it follows that all adjacent relations should be greater than all opposite relations. This circular ordering is important with respect to the concepts of profile differentiation and consistency and in determining person-environment match. It provides information about what interests are similar and different and this can prove useful in career decision-making.

The circular arrangement of RIASEC scores has received good support in U.S. contexts. In a structural meta-analysis, Tracey and Rounds (1993) found support for the claim that the RIASEC scales were fitted by the circle across a variety of scales for U.S. samples. They found that there was no difference in fit of the circle across gender or age (with the lowest ages being greater than 14 years old). They did however demonstrate that the fit of the circular ordering to non-U.S. samples and ethnic U.S. samples was less strong, raising doubts about construct equivalence across cultures. Subsequent examinations provided some support for construct equivalence of the RIASEC circular structure in the U.S. ethnic groups (Gupta et al. 2008), in Germany (Nagy et al. 2010), and in Romania (Iliescu et al. 2013).

In another structural meta-analysis of RIASEC scales that focused on cross-cultural structural equivalence, Rounds and Tracey (1996) found that except for Iceland, no country showed a better fit for Holland's hexagonal structure than that found in the United States. However, Japan and Israel demonstrated roughly comparable levels of fit as compared to U.S. benchmark samples. Notably, the authors were surprised to find that the fit of the circular order model of the hexagon was significantly worse even in countries that were linguistically similar to the United States and with similar occupational structures (e.g., Australia and Canada). In general, Rounds and Tracey (1996) found, "that regardless of the level of analysis, the cross-culture structural equivalence of Holland's circular order model was not supported" (p. 324). The model fit differences were particularly pronounced when the U.S. samples were compared to the international samples as a whole. On this score, the authors found that 94% of the U.S. benchmark samples displayed a better fit than the international samples. In seeking to account for this rather unexpected finding, the exploration of potential moderator variables such as the gross national product or certain cultural values (individualism-collectivism) of a country failed to provide any viable explanations. A final meta-structural analysis of Chinese data by Long and Tracey (2006) also revealed a poor fit of the RIASEC data to a hexagon. These results indicate that construct equivalence has not been established and that care should be taken in using and interpreting these RIASEC measures in non-U.S. contexts. The scales are measuring different things across cultures as indicated by the varying degrees of fit to the circular model.

Recent advances in assessment of interests based on the RIASEC model involve the development of picture-based descriptive assessment tools, such as the pictorial

version of the Personal Globe Inventory in the U.S. (Enke 2009) and the Pictorial and Descriptive Interest Inventory in Croatia (PDII; Šverko et al. 2014). Similar to verbal RIASEC measures, the pictorial version of the Personal Globe Inventory (Enke 2009) and the PDII (Šverko et al. 2014) demonstrated acceptable fit to the circular structure. The use of graphic representations of occupations may reduce the linguistic bias or misinterpretation of verbal stimuli in cross-cultural interest assessment and extend application to a younger population. While the PDII presents a promising novel evaluation tool in Croatia and is available in both Croatian and English (Šverko et al. 2014), its psychometric features with the English version in other cultural contexts warrants future examination.

Gati's Partition Model

Gati (1979, 1991) introduced his three-group partition model (see Fig. 30.1) for the structure of vocational interests as an alternative to the reigning hexagonal structural model posited by Holland (1973). Gati cited what he considered to be several conceptual and empirical problems with the better-established hexagonal and circular models and offered the partition model as an option that better accounted for the relations among the variables in the model. Although the focus of this chapter precludes extensive discussion of the empirically based assertions about the fit of competing models to data, it should suffice to say that the advent of more sophisticated methods of structural analysis (Hubert and Arabie 1987; Rounds et al. 1992; Tracey and Rounds 1993) cast real doubt about Gati's (1979, 1991) claims.

The structure of interests articulated by Gati has both theoretical implications and meaning for the career guidance process. In brief, the structure, which looks like an inverted tree, indicates that the variables paired together at the bottom are more highly related than any other two variables, as would be reflected in a correlation matrix. For example, according to the arrangement of the variables in the model, R and I are more highly correlated than R and A, R and S, R and E, R and C and even I and A.

For the purposes of career guidance in selecting a desired occupation, one can start at the top where no specific choice preference is indicated. Then the decision-maker may select from one of the three clusters. After selection of a cluster is made, the decision-maker may then select from among one of the broad interest types within the cluster. Finally, a more detailed exploration of specific careers within the selected interest type may take place. However, if the career decision-maker finds no career in which she/he is interested, she/he may take a step back up the "tree" or hierarchy and explore careers within the other type in the same cluster. Alternatively, after the administration of an interest assessment measure, the respondent's dominant RIASEC type may be identified. Careers representing the dominant type may be explored. If this perusal of possible careers fails to pique the interest of the respondent, then the other type in the same cluster can be explored further.

The structural meta-analyses of Tracey and Rounds (1993) demonstrated that Gati's model did not fit U.S. samples as well as the Holland hexagon but it did fit the data better in international contexts although there was still a good deal of variability. Subsequent structural meta-analyses by Rounds and Tracey (1996) and Long and Tracey (2006) also supported this conclusion. These results indicate again that there is questionable construct equivalence of RIASEC measures across cultures, but that there may be some equivalence across non-U. S. cultures with respect to Gati's partition model. This model certainly cannot be assumed valid as there still was a good deal of variability with its fit varying across countries (e.g., adequate fit in Germany in Nagy et al. 2010 and in Romania in Iliescu et al. 2013; poor fit in Serbia in Hedrih 2008). Gati's model is much simpler than Holland's hexagon and it is this simplicity that better fits across non-U.S. cultures. However, the simplicity also means that it makes few predictions (see Tracey and Rounds 1993 for a discussion) and thus has limited utility.

Spherical Structure of Vocational Interest

The spherical model is associated with the *Personal Globe Inventory* (PGI, Tracey 2002), which is a three-dimensional, spherical model, with 18 scales and assesses vocational activity and occupational preference as well as perceived competence, or self-efficacy. Two rather notable findings served as precursors in the development of the PGI: (a) that the six RIASEC types typically used in most contemporary interest measures were arbitrary and (b) that support was found for a third substantive dimension in mapping interests. With regard to the first finding, Tracey and Rounds (1995) found that people responded to occupational titles such that an analysis of the placement of the titles revealed that they were uniformly distributed around the circle, rather than clustering around the six RIASEC vertices. As a result, the number of types is arbitrary; there is no natural clustering around the six RIASEC types. So, any number of types can be used to represent interests, not just the six RIASEC types. Tracey and Rounds proposed an eight-type octant model and found that it fit the data at least as well as the more traditional six-type model.

The eight types are presented in Fig. 30.2 (with the RIASEC types superimposed for comparison purposes). Tracey (2002) found that the octant type model fit well in U.S. samples and somewhat better than that found for the six-type model. Tracey et al. (1997) found that this octant circular model fit a sample of Japanese college students better than the six type RIASEC circular model. Other research has also supported the eight-type circular model in application to non-U. S. contexts by both the standard forms of the PGI (Darcy 2004 for Ireland; Long et al. 2005 for China; Šverko 2008 for Croatia; Hedrih 2008 for Serbia; Akbarzadeh 2010 for Iran; Caulum et al. 2011 for Singapore; Wilkins et al. 2013 for Jamaica and Trinidad; Leung et al. 2014 for Hong Kong; Etzel et al. 2016 for Germany; Holtrop et al. 2015 for the Netherlands; Vardarlı et al. 2017 for Turkey) and the abbreviated version – the PGI-Short (Tracey 2010 for the U.S.; Zhang et al. 2013 for China). There has also been

unpublished evidence for validity support of the PGI in Slovenia, Macedonia, France, Italy, Malaysia, Philippines, and Portugal (Tracey 2016). Further, a recent multi-national study using a mini English version of the PGI-Short across 74 countries demonstrated satisfactory fit for most of the countries except for Bangladesh, Cyprus, Puerto Rico (Gloesenberg et al. 2019). Notably, culture plays a role in the fit of interests such that the higher levels of individualism at the country level, or the lower levels of power distance (the degree of acceptance of unequal power distribution by less powerful members) and uncertainty avoidance (the degree of discomfort with uncertainty and ambiguity), the better fit to the eight-type circular model (Gloesenberg et al. 2019; Tao et al. 2019). These findings yielded for the octant type model in the U.S. and in other countries provide promising support for construct equivalence. Certainly, more research is needed for more confidence to be placed in construct equivalence of the octant type model, especially in the extra-measure relations.

The possibility of an octant circle being more valid cross-culturally than the RIASEC circle raises the issue of specificity of interests. As noted above, the six-type circular model did not fit well cross-culturally. However, a much simpler three-group partition model of Gati (1979, 1991) did fit well. The initial data with the eight-type circle shows good fit cross-culturally. Perhaps the greater specification of types in the eight-type model leads to a better fit across cultures. The six-type model may have more gaps and holes as applied to different cultures. For example, Social is divided into two different types in the octant model, Social Facilitating and Helping. The two types of social interests may apply better in other cultures than the one broad Social type.

The other aspect of the spherical model is the inclusion of the dimension of prestige. Tracey and Rounds (1996) found that this dimension was also present in interest data and constructed a model incorporating this dimension as independent of the octant interest circle. The full representation of the PGI model is depicted in Fig. 30.3. The resulting spherical structure is characterised by high-prestige occupation and activity scales located in the upper hemisphere, while their low prestige counterparts are found in the lower hemisphere. As can be seen in Fig. 30.3, there are the octant basic interest types around the equator of the sphere and five types on each of the hemispheres mentioned above representing higher and lower prestige.

Initial examination of this model has provided structural support in U.S. contexts (Tracey 1997, 2002) across gender and across ethnic groups of high school and college students. Given the importance of prestige in many cultures, it is expected that the inclusion of this dimension adds important information to an interest profile. The spherical model fit the data well in Japanese (Long et al. 2006; Tracey et al. 1997), Irish (Darcy 2004), Chinese (Long et al. 2005; Zhang et al. 2013), and Serbian (Hedrih 2008) contexts supporting this claim; however, an overall poor fit was found in Jamaican and Trinidad contexts (Wilkins et al. 2013) and some deviations to the spherical model at the scale level were evidenced in a study in Germany (Etzet et al. 2016). Therefore, the spherical model shows some initial promise of construct equivalence across cultures and more nuances need to be unravelled of its cross-cultural applications.

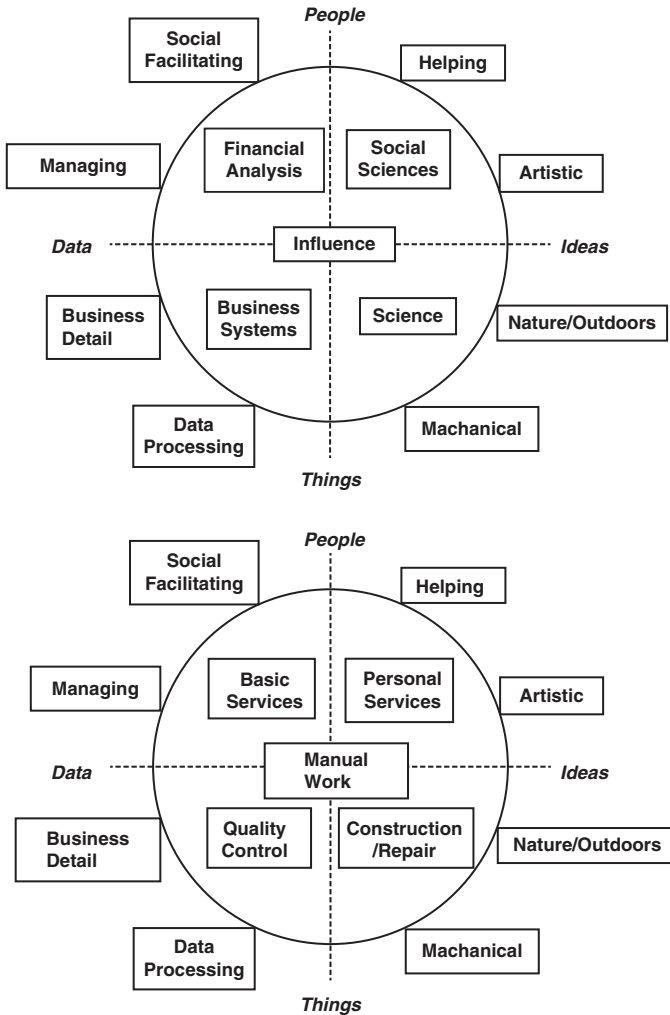


Fig. 30.3 PGI spherical model of the 18 scales. Top depicts upper half (higher prestige), and bottom depicts lower half (lower prestige). Adapted from “Personal Globe Inventory: Measurement of the spherical model of interests and competence beliefs”, by Tracey (2002). With permission from Elsevier

Hierarchical Structure

Up to now very broad categorisations of interests have been discussed. The RIASEC types are very general aggregations of interests. Day and Rounds (1997) made an important distinction between basic interests and general occupational types such as the RIASEC types-Basic interests were homogeneous content scales that were more specific than the six RIASEC types or the octant types. They created a catalogue of

28 basic interest types (cf. Day and Rounds (1997) for a listing of these types) and argued that given the problems of the structure of the RIASEC circle, that the greater specification of the basic interests can result in greater generalisability across groups. While their discussion did not apply specifically to cross-cultural contexts, it appeared warranted to make such examinations. Nagy et al. (2010) found preliminary support for the hierarchical model among a student sample in Germany. However, there have not been many examinations of construct equivalence of these 28 basic interests across cultures. One study in Iceland taking an emic approach derived 28 scales on basic interests from an upper secondary education sample and 35 scales from a university sample; together, the 35 basic interest scales encompassed a majority that were close to the basic interests identified in the U.S. as well as the interest domains unique to the Iceland context (Einarsdóttir et al. 2013). These limited findings point to the potential that it is at these basic interest levels where cultures would vary most, at the more specific and concrete level. Cultures should have the most impact on constraining or enhancing specific behaviors and activities. As such, the more specific interests should be more amenable to cultural influence and thus vary more across different cultures. Different cultures may thus have very different patterns of interest at this basic level, but at a more general level, perhaps the octant level or the sphere level, there may be more equivalence, indicating construct equivalence at a more general level but differences at the specific level. The same homogenous basic interest scales may not be in evidence across all cultures but when the separate basic interest scales are aggregated into more general scales there may be evidence for construct equivalence. While this equivalence of more broad categories is conjecture with respect to the interest domain, a similar pattern has been demonstrated in the personality area. Broader assessment of personality, that is, the five-factor model, has been found to generalize across culture more than the more specific facet scales and behaviors (McCrae and Costa 1999). Culture is viewed as having an effect on the more basic behaviors and not larger aggregations such as broad interest types (McAdams and Pals 2006).

Such a representation would enable account to be taken of cultural specificity in the different structure of the basic interests along with construct equivalence at a more global level. The circular model of the RIASEC types may not be an appropriate representation of the general interests. The three-partition model of Gati and the octant model appear viable representations with the octant model superior in its greater specificity. Further examination of the construct equivalence of both basic interests and general interests across culture appears warranted.

Meaning of Structural Differences

Certainly, if there are differences in the structure of interests across cultures, claims of construct equivalence are inappropriate. The measures are representing different constructs and care should be taken in usage and interpretation. For example, simple comparison of mean scores between two cultures should be avoided because there

is no common construct involved. The two groups are responding to different scales and are interpreting the items differently. Hence saying that one culture scores higher makes little sense as one is comparing apples with oranges.

The issue arises regarding what should be done when there is a need for interest assessment in contexts where there is no validated measure. For example, one uses a measure that has been adapted to a particular culture, typically through language translation but there is no information regarding its construct equivalence. As noted by Watson et al. (2005), it cannot be expected that there will be strong evidence of construct equivalence for all cultural contexts. Alternatively, researchers may aim to address emic issues and thus identify interest factors unique to a specific culture. Primavera et al. (2010) adopted an emic and item-level approach so that they identified three dimensions of interests among Filipino high school students – general interests, prestige, and sex-type dimensions; moreover, they found stronger implications from the prestige and sex-type dimensions compared to the interest dimensions established in the Western culture. A similar approach with a student sample in Iceland using indigenous interest items revealed four dimensions, with two of them resembling some of the Western interest dimensions (i.e., People-things, sex-type, prestige) and others specific to the sociocultural and ecological contexts in Iceland (Einarsdóttir et al. 2010). While it is desirable to have culture-specific measures of interests (and other things), it is not always practical. As such, interest measures may need to be applied. Certainly, the measures with the best fit to the cultural contexts should be used. In addition, individuals with explicit knowledge of the culture should provide interpretation so as to strive to modify the test meaning as needed (Watson et al. 2005).

Are Interests Important?

Evaluating the presence of construct equivalence is important but does not carry any information about the behaviors involved such as choosing different activities, majors or occupations. Even if it is possible that some interest models are equivalent across culture, this does not imply that the behaviors linked to interests are also equivalent. It is anticipated that there will be greater evidence of behavioral differences in occupational choice across cultures than in interests themselves. Having a culturally equivalent measure of interests does not imply that interests will be equally related to occupational choice. Once cultural equivalence has been established subsequent research is needed to establish the validity of extra-measure relations. Preliminary support was found by the overall similar associations between interests and personality types in U.S. and the Netherlands (Holtrop et al. 2015).

A larger issue is the relative importance of interests in a cross-cultural context. Interests generally are viewed as providing a motivational or guiding function for behavior (e.g., Hesketh and Rounds 1995; Silvia 2006). As such, interests can shape occupational and career behaviors, such as work performances (for a review, see Nye et al. 2012), but clearly cultures shape occupational and career behaviors. In

cultures where there are fewer constraints on behavior, it is expected that interests will be more strongly related to occupational choices and behaviors. However, in other contexts where there is less freedom in choice, it is expected that interests would not be as salient in occupational choice. Family and societal influences can affect choices in some contexts more than interests (e.g., Gupta and Tracey 2005; Leong et al. 1998). While interests may be validly measured in these contexts, the interests alone may not be related to occupational choice itself. For example, interests, competence, and prestige together rather than each of the components alone were found to be more strongly associated with high school students' choice of subject areas in Hong Kong (Leung et al. 2014). A recent meta-analysis in the U.S. context (Su and Rounds 2015) highlighted the association between interests and choice of occupation could vary by gender and by the specific vocational fields such that women's choice of working in the mathematical fields were more related to their interests in the subject whereas their engagement in the engineering fields were much less likely despite their endorsement of such interests. In fact, the congruence between interests and work environment, an important indicator of the person environment fit have been found to be a stronger predictor of performance than interests alone (Nye et al. 2012, 2017). Nonetheless, whether to include interests or not rests on thorough assessments of the occupational choice making process in specific contexts. Some of these issues have been touched on by Guichard and Lenz (2005) in their focus on context specifics.

Conclusion

Overall, it is imperative to assess construct equivalence of interest measures. However, it is not possible to expect that this will be done for all contexts. Hence, care must be taken in selecting the best measures and models and interpreting measures. The literature on measures and models are not supportive of construct equivalence of RIASEC scales across cultures. Gati's model appears to have more cultural equivalence but this is attributable to its relative simplicity. There is some promising support for cultural equivalence of the *Personal Globe Inventory*, but more work is needed to examine the validity of this measure and model. It needs to be reiterated that all measures and models require incessant examinations of validity relating to both internal and external relations. Test validity, especially in cross-cultural contexts, is never attained but always successively approximated.

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Chapter 31

Vocational Interests: Revisiting Assumptions About Their Development and What They Predict



Kevin A. Hoff, Jessamyn G. Perlus, and James Rounds

Abstract Vocational interest assessments are a unique tool in that they are used to predict outcomes far into the future. The use of interest assessments for predictive purposes is supported by decades of research showing that vocational interests are highly stable over time and predict several important career and academic outcomes. Yet new research findings have led to a better understanding of why interests are important and how they develop and change with age. In this chapter, we review recent research on the development and predictive validity of interests with a focus on career guidance implications. The chapter is organised into two parts. The first part reviews research on the development of vocational interests. The second part reviews research on the predictive validity of interests for a variety of career and academic outcomes. A major conclusion is that interests are surprisingly strong predictors of performance-related outcomes (e.g., job performance and career success), but are not as consistently associated with satisfaction-based outcomes (e.g., job satisfaction) as popular literature would suggest. The chapter concludes by reviewing theoretical and practical implications aimed at better understanding the interest development process and the outcomes associated with interest fit.

Keywords Interest development · Mean-level change · Interest fit · Job performance · Career success

Vocational interest assessments are a unique tool in that they are used to predict outcomes far into the future—in both research and practical settings. The use of interest assessments for predictive purposes is supported by decades of research showing that vocational interests are highly stable over time and predict several important career and academic outcomes (Low et al. 2005; Nye et al. 2012, 2017; Rounds and Su 2014; Van Iddekinge et al. 2011). Yet new research findings have led to a better understanding of why interests are important and how they develop and change with age (e.g., Hoff et al. 2018). In this chapter, we review recent research

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on the development and predictive validity of vocational interests with a focus on career guidance implications.

This chapter is organised into two parts. The first part reviews research on the development of vocational interests, focusing on continuity and change across the life course. Recent meta-analytic findings are emphasised that show interests change in meaningful ways from adolescence to adulthood, with implications for the interpretation of interest assessments with clients of diverse ages. The malleability of gender differences across the life span is also examined. The second part reviews research on the predictive validity of vocational interests for a variety of career and academic outcomes. A major conclusion is that interests are surprisingly strong predictors of performance-related outcomes (e.g., job performance and career success), but are not as strongly linked to satisfaction-based outcomes (e.g., job satisfaction). These findings challenge several influential theories of work behaviour and highlight the need to rethink the importance of interests in shaping human behaviour. The chapter concludes by reviewing theoretical and practical implications aimed at better understanding the interest development process and the outcomes associated with interest fit.

Vocational Interest Development

Vocational interests are defined as “trait-like preferences to engage in activities, contexts in which activities occur, or outcomes associated with preferred activities that motivate goal-oriented behaviors” (Rounds and Su 2014, p. 98). An important feature of this definition is the word, *trait-like*. Similar to personality traits, vocational interests endure across the life span. Meta-analytic research has shown that interests possess high levels of stability from adolescence to adulthood, showing greater rank-order stability than personality traits (Low et al. 2005; Roberts and DelVecchio 2000). However, this does not imply that interests are incapable of changing. Stability indices are independent from measures of change; high stability does not preclude the possibility of change. Indeed, our recent meta-analysis showed that vocational interests change in meaningful ways during adolescence and young adulthood (Hoff et al. 2018). In this section, we review these novel findings and discuss how they contribute to existing research and theory on continuity and change in vocational interests. Practical implications for the interpretation of interest assessments by career guidance counsellors are discussed throughout.

The Stability of Vocational Interests

Stability can be defined in two ways: rank-order stability and profile stability. Rank-order stability reflects continuity in the relative ordering of individuals within a group based on individual differences in interest scores. Rank-order stability is

therefore a measure of inter-individual continuity. On the other hand, profile stability reflects intra-individual continuity, the extent to which an individual’s interest profile remains the same over time. Both types of stability are important for the practical use of vocational interests. For interest assessments to have predictive power, they must retain the ability to differentiate between individuals based on the relative ordering of scores within a group (i.e., rank-order stability). In addition, interest assessments must reliably differentiate interest scores within individuals over time (i.e., profile stability).

Low et al. (2005) quantitatively reviewed research on the stability of vocational interests. In their meta-analysis of 66 longitudinal studies, the authors found that vocational interests are remarkably stable in terms of both rank-order and profile stability. Vocational interests showed higher rank-order stability than personality traits from ages 12 to 30 (c.f., Roberts and DeVecchio 2000). Another important finding was that the rank-order stability of interests generally increased with age from early adolescence (age 12) until young adulthood (age 22–25), when stability levels plateaued (see Fig. 31.1). In other words, the rank-ordering of individuals’ interests within a group becomes increasingly stable throughout adolescence and the college years, but stability levels do not continue increasing during young and middle adulthood. This suggests that interests shift around more during adolescence

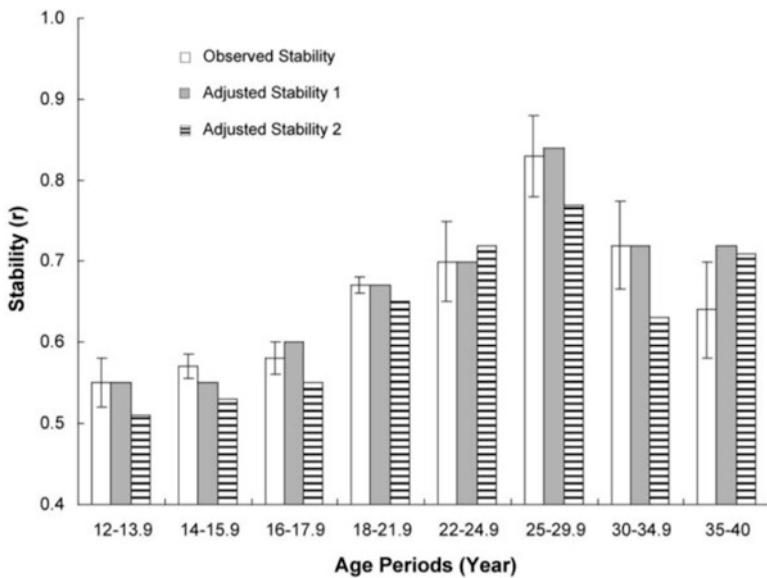


Fig. 31.1 Population estimates of mean vocational interest stability across age categories. Error bars indicate 95% confidence intervals for each age group. Observed Stability = unadjusted estimates; Adjusted Stability 1 = adjusted estimates with controls for time interval; Adjusted Stability 2 = adjusted estimates with profile correlations excluded and controls for time interval. (Adapted from “The Stability of Vocational Interests from Early Adolescence to Middle Adulthood: A Quantitative Review of Longitudinal Studies,” by Low et al. 2005. Copyright 2005 by the American Psychological Association)

than during young adulthood. Nonetheless, stability indexes simply indicate the extent to which changes are occurring at different age periods. The Low et al. results do not offer insight into *how* interests change with age, in terms of the direction and magnitude of changes in different interest categories. In addition, the findings do not reveal whether there are gender differences in developmental trends (i.e., whether women and men's vocational interests change differently as they age).

Developmental Changes in Interests

There are two primary ways to assess developmental changes in vocational interests: mean-level change and individual differences in change. Mean-level changes reflect normative changes at the population-level, or how interests change *on average* during different age periods. Individual differences are deviations from a population's mean-level changes over time; do some individuals increase in their interest intensity, while others decrease? It is important to consider both types of change to understand the diverse pathways that people experience over the course of development. However, most existing longitudinal research has focused on mean-level changes in vocational interests. In the following sections, we review findings from our recent meta-analysis of longitudinal studies tracking mean-level changes in vocational interests (Hoff et al. 2018). We also discuss research on related constructs (e.g., interest in school subjects, career aspirations, personality traits) to present an integrative picture of interest development during adolescence (~ages 11–18) and young adulthood (~ages 18–30).

Adolescence

The period of adolescence can be separated into early (ages 11–14) and late adolescence (ages 14–18). Early adolescence is marked by relatively rapid decreases in vocational interests. In our meta-analysis of mean-level changes in vocational interests, Hoff et al. (2018) found declining scores in almost every RIASEC¹ interest category from ages 11 to 14. This can be seen in Fig. 31.2, which shows cumulative changes in each interest category from early adolescence (~age 11) to middle

¹Holland's (1959, 1997) RIASEC vocational interest typology is the most widely used theoretical framework for interest measurement. Holland's typology describes people according to their resemblance to six vocational personalities and environments: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). *Realistic* interests involve working with hands, tools, and materials. *Investigative* interests involve scientific and research activities. *Artistic* interests involve self-expression and creativity typically associated with the performing, written, and visual arts. *Social* interests are activities that involve helping and nurturing. *Enterprising* interests involve selling, managing, and social influence typically in a business context. *Conventional* interests involve the ordered and systematic manipulation of data with clear standards.

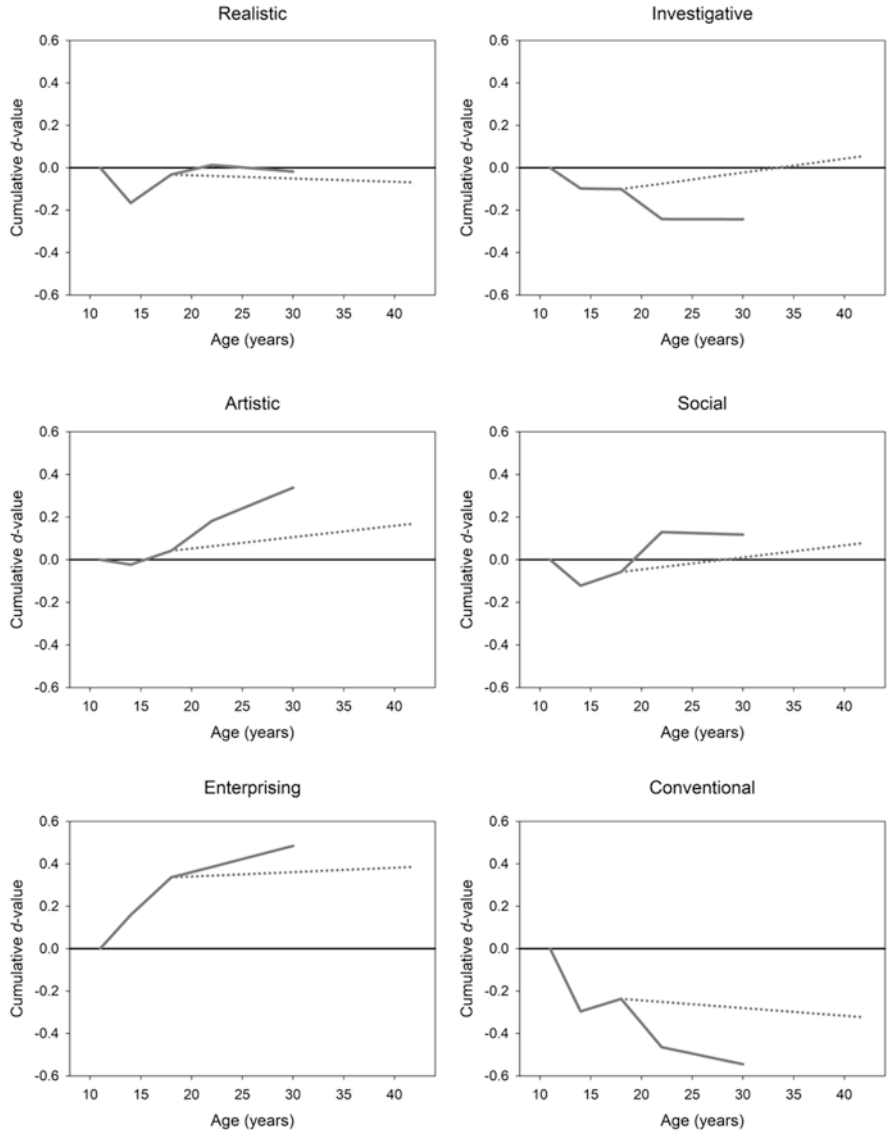


Fig. 31.2 Cumulative changes in RIASEC vocational interests from adolescence to adulthood. Solid lines represent cumulative effect sizes (d-values) from ages 11–14, 14–18, 18–22, and 22–30. Dotted lines represent effect sizes for the 18–42 age category, which included only studies with long retest intervals spanning late adolescence through middle adulthood. (Adapted from “Normative Changes in Interests from Adolescence to Adulthood: A Meta-Analysis of Longitudinal Studies,” by Hoff et al. (2018). Copyright 2017 by the American Psychological Association)

adulthood (~age 42). The only exception to this pattern was enterprising interests, which tended to increase during early adolescence. Nonetheless, the overall finding was that students who responded to interest assessments at age 13–14 tended to like fewer activities than when they were 11–12 years old. In other words, the normative trend of early adolescence appears to be decreasing vocational interest intensity.

Studies on the development of other motivational constructs have found similar decreases during early adolescence. For example, studies have reported mean-level declines in school subject interest intensity, self-esteem, and competency beliefs during this age period (Bong et al. 2015; Dotterer et al. 2009; Frenzel et al. 2012; Renninger and Hidi 2016; Wigfield et al. 1991). In addition, research on personality development suggests that students become less agreeable, conscientious, and emotionally stable during early adolescence (Denissen et al. 2013; Soto et al. 2011; Van den Akker et al. 2014).

Future research is needed to better understand why these decreases occur during the transition from childhood to adolescence. Several factors likely contribute to the declines in mean-level vocational interest scores (Hoff et al. 2018). For example, early adolescence is marked by an increased emphasis on school grades and educational content that becomes more complex and hierarchical (Eccles et al. 1993; Renninger and Hidi 2016). Students also begin to make connections between school subjects and careers during this time. If students experience boredom or difficulties in school subjects, they may report less interest in associated career areas. In addition, peer influences can be particularly influential during early adolescence. Gender stereotypes may lead students to report less interest in occupations and work activities that conflict with traditional gender roles (Gottfredson 1981, 2005).

Yet the declining interest scores that define early adolescence are only temporary. Our meta-analysis also revealed that during late adolescence, mean-level interest scores increase in almost every RIASEC category (see Fig. 31.2; Hoff et al. 2018). This finding leads to a major practical implication for the interpretation of interest assessments during adolescence. Rather than viewing the decreases of early adolescence as negative or harmful, these changes can be viewed as temporary reorganisation and preparation for growth. Students likely increase their adaptive capacities by overcoming the educational and social challenges of early adolescence. Research on adolescent personality development also supports this normative trend. Studies have shown that after decreasing during early adolescence, conscientiousness and openness increase rapidly in late adolescence (Denissen et al. 2013; Soto et al. 2011).

Counsellors, teachers, and parents can benefit by recognising this *deficits-breeds growth* perspective (Baltes et al. 1999) when working with adolescents and their parents to develop educational and career plans. Although interest assessments are given to students of diverse ages, results generally do not account for age differences in interest scores. Information about normative changes during adolescence can be used to provide context for assessment results and anticipate future changes in interest levels. For example, when interpreting interest assessments with 13- or 14-year-old students, practitioners should expect that interest levels will increase in most areas over the next few years. Using different assessment methods, such as

interest card sorts or emoji-based scale anchors (Phan et al. 2019), may also be helpful when working with adolescents.

Alternatively, practitioners could choose not to use vocational interest assessments until the end of late adolescence. Asking students what careers they are interested in is not likely to be productive until they have sufficient knowledge about what different careers actually entail. Early adolescents may simply report their interests based on occupational stereotypes (Gottfredson 1981, 2005). In place of interest assessments, more effort could be made to educate students about the world of work. Younger students could benefit by conducting informational interviews or job shadows based on their developing career aspirations. Practitioners are also encouraged to use O*NET, the Occupational Information Network website hosted by the U.S. Department of Labor (O*NET; Peterson et al. 1999). O*NET offers a free online interest inventory (i.e., the Interest Profiler; Rounds et al. 2010), and also classifies thousands of jobs in terms of interests (RIASEC coded), values, job tasks, education required, and several other variables. Thus, even without using the Interest Profiler, O*NET contains a host of useful information that can be used to educate young students about the world of work.

Young Adulthood

As mentioned, previous research has indicated that vocational interests stabilise during young adulthood (Low et al. 2005), but this does not mean that they become fixed. Our meta-analysis on mean-level change revealed a consistent pattern of change across composite People and Things² interest dimensions (Hoff et al. 2018). In three separate age periods spanning young adulthood (ages 18–22, 22–30, and 18–42), interests involving People tended to increase (social, enterprising, and artistic), whereas interests involving Things either remained constant (realistic and social) or decreased (conventional). This suggests that during young adulthood, many people gradually become more interested in activities and work environments that involve helping, leading, and influencing people. Career guidance counsellors and others who work with secondary and post-secondary students can benefit by anticipating these changes.

Understanding why vocational interests change during young adulthood is an important area for future research. Although few studies have addressed this question with vocational interests, there has been considerably more research on mechanisms underlying personality trait change. Personality traits and vocational interests are interrelated over the course of development, so age-related changes in interests

²Another classification system that relies on Holland's typology is Prediger's (1982) two-dimensional model of People-Things and Data-Ideas. These dimensions were initially proposed to be bipolar. However, recent studies by Tay et al. (2011) and Graziano et al. (2011) have shown that these dimensions are better represented from a bivariate perspective. In other words, an interest in People does not necessarily imply a lack of interest in Things; and similarly, one can be interested in activities that involve both Data and Ideas simultaneously (Woodcock et al. 2013).

can be viewed from an integrative perspective (Ackerman 1996; Ackerman and Heggstad 1997; Armstrong and Vogel 2009). As people-oriented vocational interests increase during young adulthood, mean-levels of agreeableness, conscientiousness, and emotional stability also tend to increase (Roberts et al. 2006). These personality increases have been labeled the maturity principle because they occur in trait domains associated with social maturity (Roberts and Mroczek 2008). Social maturity is valued in a variety of interpersonal settings, which incentivises the development of such traits (Hogan and Roberts 2004; Nye and Roberts 2013).

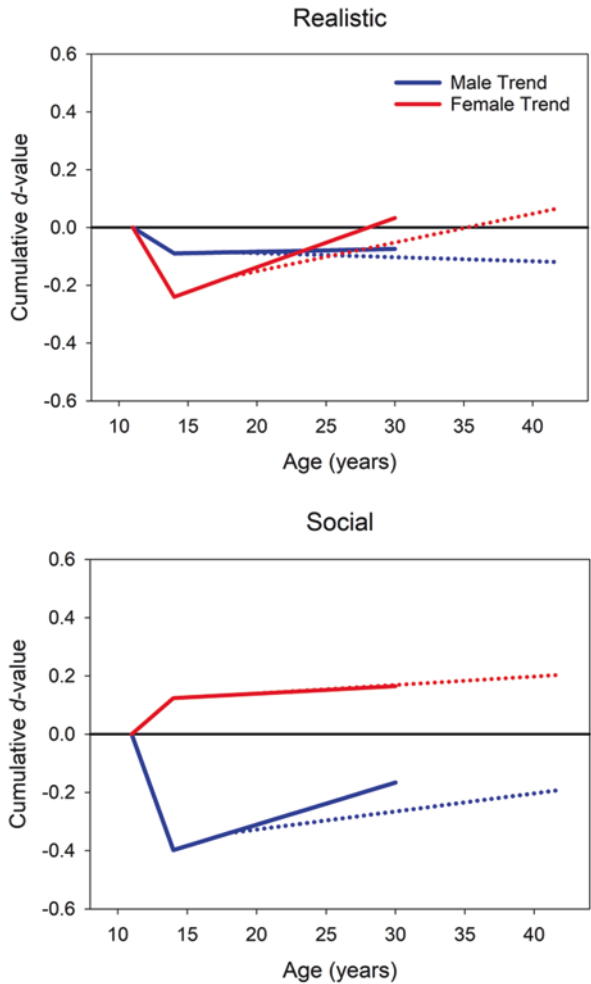
Longitudinal studies on personality development have identified work transitions as an important influence on change (e.g., Clausen and Gilens 1990; Lüdtke et al. 2011; Nye and Roberts 2013; Roberts et al. 2003). For example, a large-scale study by Specht et al. (2011) found that young adults became more conscientious after beginning their first job, and older adults became less conscientious after retiring. Conscientiousness is positively associated with several important work outcomes (e.g., job satisfaction, income, and occupational status; Judge et al. 1999), so it is not surprising that conscientious levels are related to work transitions. Reward structures at work may also help explain why People-oriented vocational interests increase during young adulthood. Longitudinal studies tracking changes in interests across work transitions are needed to better understand the dynamic relations between interests and work experiences. More broadly, it is important for career guidance practitioners to recognise that vocational interests can change during adulthood as individuals gain work experience.

Gender Differences Across the Life Span

There are large gender differences in vocational interests, particularly in realistic and social interests. Men have substantially stronger realistic interests than women ($d = .84$), while women have much stronger social interests than men ($d = -.64$; Su et al. 2009). These two differences are among the largest gender differences of all psychological variables and have been well-documented in the literature (Lippa 1998, 2010; Su et al. 2009; Su and Rounds 2015). However, fewer studies have examined how the size of these gender differences varies with age. This question has important implications for educational initiatives aimed at reducing the gender disparity in certain STEM career fields (Su and Rounds 2015). Interventions targeting vocational interests can benefit from knowing when gender differences first emerge and how they change with age (e.g., Karabenick and Urdan 2014).

The Hoff et al. (2018) meta-analysis addressed this research question by comparing mean-level changes in realistic and social interests between samples of men and women. Our results led to two important findings about the magnitude of gender differences across the life course. First, as shown in Fig. 31.3, gender differences in realistic and social interests widen substantially during early adolescence, as both boys and girls lose interest in work activities typically associated with the opposite gender. However, during late adolescence and young adulthood, gender differences in realistic and social interests gradually decrease in magnitude. Together, these two

Fig. 31.3 Gender differences in realistic and social interests from adolescence to adulthood. Solid lines represent cumulative effect sizes (d-values) from ages 11–14 and 14–30. Dotted lines represent effect sizes for the 18–42 age category which included only studies with long retest intervals spanning late adolescence through middle adulthood. (Adapted from “Normative Changes in Interests from Adolescence to Adulthood: A Meta-Analysis of Longitudinal Studies,” by Hoff et al. (2018). Copyright 2017 by the American Psychological Association)



findings suggest that gender differences in vocational interests reach a lifetime peak during early adolescence. Yet after this age period, women gradually become more interested in realistic activities, while men gradually become more interested in social activities. Large-scale cross-sectional comparisons also suggest a gradual reduction in the size of gender differences with age (Morris 2016; Su et al. 2009).

Future research is needed to understand the causes and consequences of declining gender differences in vocational interests. Existing theories of interest development generally do not address age-related changes in interests (Hidi and Renninger 2006; Holland 1997; Renninger and Hidi 2016). However, one theory on the development of career aspirations helps explain these novel findings (Gottfredson 1981, 2005). Gottfredson’s theory of circumscription and compromise proposes four stages in the development of occupational aspirations. In the first two stages (span-

ning ages 2–8), children begin to learn about sex roles and their application to careers. In the third stage spanning early adolescence (ages 9–13), Gottfredson emphasises the role of social expectations and values in shaping aspirations. During this time, students become highly concerned with peer approval, potentially causing gender differences in vocational interests to increase. Yet in the fourth stage (age 14+), Gottfredson argues that aspirations depend less on peer approval and more on one's unique, internal self (1981). This helps explain why gender differences decline during young adulthood. Nonetheless, it is important to recognise that gender differences in vocational interests do not disappear in middle adulthood. The differences in realistic and social interests are large enough that they persist, to at least some extent, throughout the entirety of the life span (Su et al. 2009).

The Predictive Validity of Vocational Interests for Work Outcomes

Vocational interest assessments are among the most popular career guidance tools. For example, roughly four million high school students take the ACT Interest Inventory each year in the United States (American College Testing Program 2009), which is just one of several popular interest measures (e.g., Interest Profiler – Rounds et al. 2010; Self-Directed Search – Reardon and Lenz 2015; Strong Interest Inventory – Donnay et al. 2005). Assessment results are used in a variety of decision-making processes, such as what to study in college, what job to pursue, and where to work. The reliance on interest assessments for these types of decisions is predicated on the assumption that *interest congruence*—the fit between a person's interests and their environment—predicts important outcomes in educational and work environments. Although this assumption is supported by considerable research in certain areas, interest fit does *not* predict all outcomes equally. Next, we review research and theory on the predictive validity of vocational interests for a variety of important work outcomes. The central conclusion is that interests are better predictors of performance than satisfaction. Career guidance practitioners can benefit by reconceptualising the importance of interests in this way.

Theoretical Assumptions About the Importance of Interest Congruence

Holland's (1959, 1997) Theory of Vocational Personalities and Work Environments is the most widely applied theory of vocational interests. A core proposition of Holland's theory is that people have a basic motivation to seek out environments that allow them to express their interests, skills, and abilities. Holland argued that a variety of important work outcomes (e.g., job satisfaction, tenure, and success)

depend on the degree to which an individual's interests matches the characteristics of their environment (i.e., interest fit/congruence). The environment can be construed in a number of ways resulting in different types of Person-Environment (P-E) fit, such as fit with one's supervisor, organisation, or occupation. Holland's theory is most concerned with fit at the occupational-level, as he argued that occupations are composed of people with similar personalities and interests. According to Holland's theory, individuals who more closely resemble the distinctive characteristics of their occupation should be more satisfied with their jobs, stay longer, and perform better.

Other major theories of P-E fit make similar predictions about the outcomes associated with better interest fit. Schneider's (1987) Attraction-Selection-Attrition model and Dawis and Lofquist's (1984) Theory of Work Adjustment are two notable examples. Both theories have had a major influence on research in vocational and organisational psychology. The Attraction-Selection-Attrition (ASA) model is similar to Holland's theory in that it focuses on the role of vocational interests, goals, and values in guiding people towards organisations composed of like-minded individuals. Self-selection processes lead to homogenous workplaces, so employees with similar interests to their coworkers should experience higher levels of job satisfaction and performance. In contrast, individuals with interests that do not fit their environment are more likely to leave their job (Schneider 1987). The Theory of Work Adjustment (TWA) makes similar predictions, but focuses more on the demands that individuals and organisations exert on each other (and whether each side can meet the demands). According to TWA, the primary outcomes of interest fit are employee satisfaction and job tenure (Dawis and Lofquist 1984).

Importantly, none of the three P-E fit theories discussed above propose hard distinctions between the positive outcomes associated with interest fit. Performance, satisfaction, and job tenure are often lumped together without specifying whether vocational interest fit is more closely related to any of these outcomes compared to the others. This is problematic because empirical research has revealed important distinctions in the strength of correlations between vocational interests and various work outcomes.

Job Satisfaction

Research suggests that vocational interests are moderate predictors of job satisfaction. Three published meta-analyses have examined the relationship between interest congruence and job satisfaction (Assouline and Meir 1987; Tranberg et al. 1993; Tsabari et al. 2005). In all three studies, positive correlations were found between congruence and satisfaction, but the confidence intervals included zero (Assouline and Meir 1987: $r = .21$, 95% CI $[-.08, .50]$; Tranberg et al. 1993: $r = .20$, 95% CI $[-.06, .45]$ Tsabari et al. 2005: $r = .14$, 95% CI $[-.03, .30]$). Thus, previous research has failed to show a statistically significant relationship between interest congruence and job satisfaction.

There are several different ways to interpret these findings (e.g., Tinsley 2000). On one extreme, it can be argued that previous studies are flawed or limited in some way, so their results should be ignored. Or on the other extreme, the non-significant results can be interpreted to suggest that interest congruence is not important for job satisfaction; employees need not be interested in order to be satisfied. A middle ground also exists between these two perspectives: being interested may be more important for some people than others. The strength of the correlation may also vary across different types of jobs. These possibilities challenge some of the most basic assumptions of vocational psychology and career guidance.

All three previous meta-analysis reported wide confidence intervals around their estimated interest-satisfaction correlations. This suggests that there are likely important moderators that affect the strength of the relationship between interest congruence and job satisfaction. One possible moderator is the extent to which different people value being interested in their work. Locke's (1969, 1973) Value-Percept model of job satisfaction argues that value fit is more important than interest fit in determining job satisfaction. Some people care more about their salary, job autonomy, or location compared to whether they are interested in their job. From this perspective, interest congruence can be viewed as one type of value, among many others, that helps determine whether people are satisfied with their job. The extent to which employees value being interested in their work may vary within occupations, depending on an employee's age, gender, socio-economic background, or other unidentified moderators.

There may also be important moderators that vary between occupations. Characteristics such as job complexity, salary, and occupational prestige may influence the strength of the interest-satisfaction relationship. For example, research has shown that the predictive validity of cognitive abilities for performance is stronger for more complex jobs (Schmidt and Hunter 1998), and that personality traits predict job performance differently depending on the contexts in which jobs are performed (Judge and Zapata 2015). Between-occupation moderators have yet to be identified in the study of interests and job satisfaction. However, recent research suggests that the homogeneity of employees' interests within different occupations may be a particularly important consideration.

Homogeneity—the extent to which individuals in the same occupation share the same interests—is a key assumption of person-environment fit theories (Holland 1997; Schneider 1987). Holland emphasised the use of congruence indices that capture fit between the interest profiles of individuals and occupations to predict work outcomes such as satisfaction (Holland 1997). Occupation-level congruence indices assume that there are common interest profiles of employees within specific occupations, which differ from the profiles of other occupations. Previous research has supported the homogeneity assumption in the context of employee personality (King et al. 2016; Schneider et al. 1998). However, some researchers have questioned whether interest profiles within occupations are sufficiently homogeneous (e.g., Zytowski and Hay 1984). For example, Dolliver and Nelson (1975) found substantial interest variation within occupations and characterise homogeneity as an

oversimplification. Despite these critiques, the homogeneity assumption has persisted.

Perlus et al. (2016) examined the homogeneity of interests in occupations using four large datasets. The results provided mixed evidence demonstrating varying levels of homogeneity within occupations. In some cases, a large proportion of employees in the same occupation reported the same dominant interest (measured as a first letter interest code). For example, 82% of male fine artists had dominant artistic interests, and 82% of female auto mechanics had dominant realistic interests. However, in other circumstances there were practically even distributions with each of the six RIASEC codes represented relatively equally among the sample (e.g., female radiological technologists and female chiropractors did not have dominant interest codes). These findings contradict the foundational assumption of interest homogeneity. A continuum of homogeneity exists in the interest profiles of different occupations—which also varies by gender—thus limiting the extent to which congruence indices can capture interest fit at the occupational level.

Given this finding, it is important to address the continuum of occupational homogeneity in career guidance research and practice. For example, the Self-Directed Search manual recommends exploring all iterations of interest high codes for occupations (e.g., exploring jobs that are Realistic-Investigative and Investigative-Realistic) to widen the scope of potentially good-fitting jobs (Reardon and Lenz 2015). Alternative ways of defining congruence or describing occupational environments could also aid clients with their career choices (e.g., using multiple interest profiles for heterogeneous occupations). Measuring interests at a greater level of specificity (e.g., basic interest scales) may achieve a better sense of how an individual would ‘fit’ with an occupation. Individuals are attracted to occupations that interest them, but the decision to select and remain in a particular occupation is often more complicated. Future research should consider if the degree of occupational homogeneity is a moderator of the interest-satisfaction relationship, and explore the role of additional factors influencing homogeneity such as abilities, job tenure, job complexity, or labor market conditions.

It is vital for career guidance practitioners to be aware of the relationship between interest fit and job satisfaction. If their goal is to aid clients in finding satisfying work, values assessments may be more appropriate (e.g., O*NET’s Work Importance Profiler; McCloy et al. 1999). Meta-analytic research suggests that there is a stronger relationship between value fit and job satisfaction (Kristof-Brown et al. 2005; Verquer et al. 2003), compared to interest fit (Assouline and Meir 1987; Tranberg et al. 1993; Tsabari et al. 2005). This is consistent with the perspective of viewing interest fit as a type of value that varies in importance for different individuals. It is also notable that Song et al. (2016) found that interest fit predicts certain facets of job satisfaction better than others. Specifically, vocational interests appear to be stronger predictors of intrinsic satisfaction (e.g., satisfaction with the work itself) than extrinsic satisfaction (e.g., satisfaction with pay, promotions, or supervisor). Values assessments are generally better suited to predict these extrinsic facets of job satisfaction.

Job Performance and Career Success

Unlike job satisfaction, a vast body of research supports a strong relationship between vocational interest fit and job performance. Three recent meta-analyses have summarised studies on this relationship. Van Iddekinge et al. (2011) examined the relationship between interest congruence and job performance among eight studies and found a corrected correlation of $r = 0.15$. The Nye et al. (2012) meta-analysis also examined this relationship and found a corrected correlation $r = 0.36$. The primary studies included in these two meta-analyses partially overlapped and both meta-analyses agreed that interest congruence predicted performance. However, the two meta-analyses disagreed on the magnitude of validity correlations for congruence indices compared to interest scale scores. A recent meta-analysis by Nye et al. (2017) sought to resolve differences in previous findings. Their analysis of 92 studies with 1858 total correlations revealed that interest congruence ($r = 0.32$) was a stronger predictor of performance outcomes than interest scores alone ($r = 0.16$). Moreover, the authors found that congruence indices using more than one interest type in their calculations have higher validity than indices using just the first-letter code.

Other, more specific aspects of job performance include task performance (i.e., how well an individual carries out their job duties), organisational citizenship behaviour (OCB; i.e., behaviour that helps the organisation beyond job tasks), persistence (i.e., staying in the job or organisation), and counterproductive work behaviour (CWB; i.e., behaviour that harms the organisation such as absenteeism or theft). The Nye et al. (2017) meta-analysis found strong correlations between interest congruence and task performance ($r = 0.27$), OCB ($r = 0.36$), and persistence ($r = 0.26$), but weaker correlations between congruence and CWB ($r = 0.19$). Essentially, these findings suggest that employees whose interests match their occupational environment are more likely to successfully perform job duties, demonstrate commitment to their organisation, and remain in the job longer.

Vocational interests are also highly related to aspects of career success. Career success can be separated into two broad components: *subjective* and *objective* career success (Heslin 2005). Subjective career success refers to individuals' personal evaluations of their careers. Similar to job satisfaction, it is usually self-reported and not highly related to vocational interests. On the other hand, objective career success refers to aspects of individuals' careers that are observable and can be directly measured. Objective measures of success typically capture upward mobility in careers (e.g., salary, promotions, or occupational prestige) and are therefore closely related to job performance.

Vocational interests are particularly strong predictors of salary, among the various measures of objective career success. Several large-scale studies have shown that individuals who are more interested in their work tend to earn more than their peers (Huang and Pearce 2013; Neumann et al. 2009; Su 2012). For example, with a sample of 400,000 high school students, Su (2012) showed that vocational interests measured at the end of high school were strongly correlated with income

11 years later. Interests accounted for substantially more variance in income levels (83%) compared to personality traits (5%) and cognitive abilities (12%). Su (2012) also found that vocational interests predicted occupational prestige and several indicators of academic success (i.e., degree attainment, college persistence, and college grades). Although cognitive ability was more important than interests for predicting these latter outcomes, interests were substantially more important than personality traits (Rounds and Su 2014).

Together, these findings highlight the usefulness of interest assessments for predicting job performance, academic accomplishments, and career success. Given these findings, career guidance practitioners should discuss interest assessment results as more important for predicting future performance than satisfaction. This does not mean that being interested in one's job is irrelevant to job satisfaction. Rather, interest fit is just one of many factors that determine whether an individual is satisfied with their job. It is also possible that job performance mediates the relationship between interest fit and satisfaction. On average, employees who are more interested in their work perform better; and as a result, they may become more satisfied. Longitudinal studies are needed to investigate this possibility and to establish other causal links between interests and work outcomes.

Conclusion

Recent research findings have led to new knowledge about how vocational interests develop and the outcomes associated with being interested in one's work. We have argued that these new findings challenge two core assumptions about the nature of vocational interests, with implications for theory and practice. First, the career guidance field could benefit from a more comprehensive theory of vocational interest development that integrates findings on stability and change across the life span (Hoff et al. 2018; Low et al. 2005). Current theories of interest development primarily focus on how new interests develop, not how existing interests change over time (e.g., Hidi and Renninger 2006; Holland 1997; Lent et al. 1994; Renninger and Hidi 2016). The implicit assumption has been that interests do not change once they are developed, or that changes are small and unimportant. Our recent meta-analysis casts doubt on this assumption, but future research is needed to better understand the consequences of age-related changes in vocational interest levels.

Second, practitioners can benefit from rethinking the importance of vocational interest fit when working with clients. Research has consistently revealed that interest fit is a strong predictor of job performance and career success (Assouline and Meir 1987; Nye et al. 2012, 2017; Rounds and Su 2014; Stoll et al. 2016; Su 2012; Tranberg et al. 1993; Tsabari et al. 2005). The practical implications of this finding are clear. Being interested in a job is just one factor, among many, that helps determine whether employees are satisfied. Values assessments should be used to help clients find satisfying jobs because they account for factors like working conditions, job autonomy, and opportunities for advancement. On the other hand, interest

assessments should be used to guide clients towards occupations where they will likely perform better and make more money.

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Chapter 32

Values and Life Role Salience and Their Assessment in Career Counselling



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Abstract This chapter examines the concepts of values, work values, life roles and role salience in career guidance and counselling. The methodological issues in their measurement are discussed (direct and indirect assessment, ranking and rating of values) and an overview of the main assessment instruments is presented. Finally, the use of values and role salience measures in traditional and postmodern approaches are discussed. An all-round approach, viewing values both as a person and a context variable, and utilising the advantages of both quantitative and qualitative assessments, is recommended.

Keywords Values · Work values · Life role salience · Career assessment

Values are among the crucial constructs in career psychology. They are seen as “primary variables that influence the occupational choice process” (Brown 2002, p. 49), and “central to our understanding of both the meaning of work and the reasons why people work” (Rounds and Jin 2013, p. 417). A recent meta-analysis confirms that “exploring and clarifying values is an important aspect of career counselling” (Whiston et al. 2017, p. 180).

The importance of values has been recognised in almost all career theories. Differential, developmental and constructivist approaches particularly stress the importance of values in career choices and development. In traditional, trait-oriented approaches values are seen as part of the broader construct of career personality (Holland 1997) and are used as a matching variable in search for adequate occupations (Dawis and Lofquist 1984). In developmental and constructivist approaches values are seen as an important aspect of self-concept (Super 1957) and as an essential source of meaning of work and career (Savickas 2014). The dynamic relation

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between values and life roles is recognised both in developmental and constructivist approaches (Savickas 2014; Super 1957).

This chapter deals with the assessment of values and role salience in career counselling. It has four major sections. The first section offers basic conceptualisation of values; it outlines their definitions, taxonomy and relations with similar constructs. The second section describes the concept of life roles and explains how the salience of certain life roles may reflect some deeper, underlying values. The third section discusses methodological issues in assessment of values and life roles and provides an overview of the instruments and measures most commonly used in career guidance and counselling. The fourth section discusses the use of values and role salience measures in traditional and postmodern approaches to career counselling.

Values: Basic Explanations

The Concept of Values

Two of the most frequently cited definitions of values come from anthropologist Kluckhohn and psychologist Rokeach. According to Kluckhohn (1951) a value is a “conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action” (p. 395). Rokeach (1973) saw a value as an “enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (p. 5). Rokeach also argued that values are integrated in a values system—“an enduring organisation of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of importance” (1973, p.5). Both definitions imply that values are prescriptive and form the core around which other, less central and less enduring beliefs and attitudes are formed. Based on these views, a number of definition variants followed in the literature. They have stressed five common features of values, which Schwartz (1994) summarised as follows:

A value is a (1) belief (2) pertaining to desirable end states or modes of conduct, that (3) transcend specific situations, (4) guide selection or evaluation of behaviour, people, and events, and (5) is ordered by importance relative to other values to form a system of value priorities. (p. 20)

Values are hypothetical constructs discernible from the goals a person considers important in life. Accordingly, Šverko and Vizek-Vidović (1995) operationally defined values as “general and relatively stable goals that an individual tries to attain” and *work values* as “general and relatively stable goals that people try to reach through work” (p. 5). On similar grounds, Wils et al. (2011) conceptualised work values as “desirable and trans-situational goals that act as guiding principles for an individual’s work life” (p. 447).

Life and Work Values

Each individual has a core of values which determines his or her preferences for certain goals or certain ways of attaining these goals. As these goals can be attained through general life activities or through work, a distinction between general life values and more specific work values has been often made in the literature. General values include universal constructs, such as freedom, beauty, world peace, or hedonism and typically belong to the traditional topics of social survey research. Work values, however, are tied to occupational settings and they portray the importance of work-related goals, such as economic security, social interaction, or ability utilisation. As such, they have received more attention from researchers and practitioners in the area of vocational and organisational behaviour.

Although life values and work values have been traditionally investigated separately, arguments have been raised in favour of an integrated prospect. Brown held that the “values system contains all the values held by individuals, including their cultural values and work values” (Brown 2002, p. 48) and that “all values influence career decision making because of interactions with other life roles” (Brown 1996, p. 343). Support for both assumptions is given by Schwartz (1996) who emphasised the influence of the wider cultural value system on the occupational sphere. He suggested that theorists and counsellors may benefit from considering how culture shapes a value system, rather than focusing on single work values. Schwartz (1999) also stressed the cultural values approach to the analysis of work centrality and work values. His research (Ros et al. 1999; Schwartz 1999) showed that general values correlate with work values of similar content.

In an attempt to systematise possible relations between life and work values, Roe and Ester (1999) offered three perspectives. One is that values have a particular cognitive structure which produces a structural similarity between general values and work values. This assumption is partly corroborated by Elizur and Sagie’s (1999) research. The second perspective is that general values produce work values; that is, work values emerge from projection of general values onto the domain of work. However, although several research studies found expected relations between general values and work values, the direction of causality remained uncertain. The third view is that work values are the sources from which general values develop. In contemporary business, work values seem to spread easily through such channels as management literature, international conventions, multinational companies and employment laws. However, there is little empirical evidence to support this thesis.

Regardless of which view will prove correct, life and work values are certainly interdependent. Most authors agree that work values are expressions of basic values in the work setting (Elizur 1984; Elizur et al. 1991; Nevill and Super 1989; Ros et al. 1999; Šverko and Vizek-Vidović 1995).

Taxonomy of Values

The taxonomies proposed by various authors exhibit considerable variation in the number and types of values included. Thus, among the work values inventories presented later in this chapter, the *Work Aspect Preference Scale* (WAPS) surveys 13 work values, while the *Minnesota Importance Questionnaire* (MIQ) and the *Values Scale* (VS) include 20. Apart from differences, the taxonomies contained in three inventories have also much in common. The most agreed-upon work values, those contained in at least two of the three inventories, include: ability utilisation, achievement, advancement, activity, authority, creativity, independence, life style, money, personal development, social relations, security, variety and working conditions.

There have been attempts to classify work values into like groups. The most popular a priori classification differentiates among three groups of work values: *intrinsic* (arising from the content of work, such as ability utilisation or altruism), *extrinsic* (representing the outcomes of work, such as security, high income) and *concomitant* (related to factors which accompany working, such as social relations). The distinction between intrinsic and extrinsic values has been found useful in various studies, such as the analysis of generational differences in work values (Twenge et al. 2010), or the prediction of mid-life satisfaction (Chow et al. 2017).

Empirical classifications based on factor analysis, however, give somewhat different and more elaborate classifications. The factorisation of 20 “needs” measured by MIQ rendered six distinct values types (Lofquist and Dawis 1978): Achievement, Comfort, Status, Altruism, Safety and Autonomy. These value dimensions have been further categorised by reinforcer preference into three classes: preferences related to the external environment (safety and comfort values); preferences related to reinforcement provided by other people (altruism and status); and preferences related to intrinsic or self-reinforcement (achievement and autonomy). These six values can be also paired as bipolar opposites (Dawis 1996): achievement vs. comfort, status vs. altruism and safety vs. autonomy.

Elizur et al. (1991) analysed work values data collected from a large number of respondents from eight countries. With multidimensional scaling they distinguished two basic facets of values: modality of outcome and system performance contingency. By the modality of outcome, a trichotomous classification of work values is proposed: instrumental outcomes such as hours of work or benefits; cognitive outcomes such as interest and achievement; affective outcomes such as relations with associates. The system performance contingency is conceptualised as dichotomous, comprising resources such as working condition, subsidized transportation or meals; and rewards such as pay, achievement or status. The study also revealed substantial structural similarity across the nations, with minor differences attributable to culture.

The facet approach was further developed by Lyons et al. (2010). They applied confirmatory smallest space analysis (SSA) on the work values ratings of a large sample of Canadian workers. The SSA suggested a three-dimensional cylindrex structure composed of three facets. The modality facet comprised four types of

work values: cognitive (intrinsic), instrumental (extrinsic), social/altruistic and prestige.

An extensive cross-national examination of work values structure was carried out by researchers from a number of countries collaborating in the multinational *Work Importance Study* (Super and Šverko 1995). A series of factor analyses carried out in various countries have resulted in a set of similar factors. Table 32.1 presents the factors identified in some of the countries. As their number and names suggest, very similar factors were identified in all countries. Šverko (1987, 1995) performed a more detailed cross-nation comparison of factor structures by analysing the whole data pool obtained in the countries participating in the WIS. He found a high degree of factor congruence across the national samples and concluded that the data supported the assumed universality of the factor structure of values. However, given the potential limitations of inferring the factor structure equality from the congruence indices alone (Dolan et al. 2009; Meredith 1993), the finding would need a confirmation with a more appropriate approach such as the exploratory structural equation modeling (Perera et al. 2015).

It might be objected that the instruments used in cross-cultural analyses were all developed in Western culture. However, recently a group of researchers from Taiwan (Sung et al. 2017) used both qualitative and quantitative methods to develop the *Work Values Assembly* (WVA) scale rooted in local culture. After a thorough analysis of their data, the authors concluded: “Although the WVA scale was based on work values dimensions that reflect local culture, this study also found that the work value dimensions in the WVA scale are also highly similar to those for Western society” (p. 16).

In the realm of general values, an early taxonomy was proposed by Allport and his colleagues (1970) and Vernon and Allport (1931). Their *Study of Values* measured six values (theoretical, economic, political, aesthetic, social and religious), all

Table 32.1 Value dimensions identified in the factor analyses of Values Scale in some of the countries participating in the Work Importance Study

Belgium (Coetsier and Claes 1995)	Canada (Casserly et al. 1995)	Croatia (Šverko 1995)	Italy (Trentini 1995)	South Africa (Langley 1995)	USA (Nevill and Super 1986a)
Self-realisation	Personal achievement and development	Orientation toward self-actualisation	Self-orientation	Inner orientation	Inner-oriented
Material career progress	Economic conditions	Utilitarian orientation	Material orientation	Material orientation	Material
Group orientation	Social orientation	Social orientation	Social orientation	Humanism and religion	Group-oriented
Autonomy	Independence	Individualistic orientation	Independence	Autonomous life-style	
Challenge	Physical activity and risk	Adventurous orientation	Challenge		Activity and risk

taken from Spranger's (1928) typology. Rokeach (1973) extended the taxonomy: his *Value Survey* contains 18 terminal and 18 instrumental values. According to Rokeach, terminal values refer to the beliefs or conceptions about ultimate goals or desirable end-states of existence (such as happiness or wisdom). The instrumental values refer to the beliefs or conceptions about desirable modes of behaviour (such as honesty or responsibility), which are instrumental for attainment of the terminal goals.

Since 1990, Schwartz's (1992, 1994, 1996, 2012) and Schwartz and Bilsky (1987, 1990) theory has received growing attention. His value taxonomy focuses on the type of motivational goals that values convey. From the three universal requisites of human condition (needs of individuals as biological organisms, requisites of coordinated social interaction and survival needs of groups) Schwartz derived ten broad and basic values: Self-direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence and Universalism. They are presented in a circular arrangement which reflects dynamic relations among the values: the adjacent values are similar in their underlying motivations, while distant or opposite values are more antagonistic. An extensive examination of these relationships, led Schwartz to propose a simple two-dimensional bipolar structure of values. One underlying dimension, called Openness to change versus conservation, opposes self-direction and stimulation values to conformity and tradition values. The other dimension, called the Self-enhancement versus self-transcendence, opposes power and achievement to universalism and benevolence values. Support for this theoretical structure and its cross-cultural universality came from extensive research comprising samples from 67 nations (Schwartz 1992).

Although the taxonomies of values appear quite different in the number of values and their content, former research with the *Rokeach Value Survey* yielded a configuration which is quite similar to that postulated by Schwartz (cf. Schwartz and Bilsky 1987, 1990). Moreover, a few attempts to provide a taxonomy that is applicable for both work and general life values (e.g., Elizur and Sagie 1999; Ros et al. 1999) suggest that such an endeavour is promising.

Ros et al. (1999) proposed four distinctive types of work values that parallel the two Schwartz basic value dimensions. Using factor analysis, they identified four basic work values types: extrinsic, intrinsic, social and prestige. In the prestige region are values whose attainment demands a personal superiority in a comparison with others (achievement, advancement, status). The work values in the intrinsic region are values that contribute to a sense of personal growth (meaningfulness, responsibility, use of abilities). Extrinsic and social values are by definition similar to the instrumental and affective values in the typology of Elizur et al. (1991). Those four types of values were empirically related to basic dimensions of general values measured by the *Schwartz Value Survey*. Extrinsic work values correlated positively with conservation values and negatively to openness to change values, whereas intrinsic work values correlated negatively with conversation and positively to openness to change. Social work values correlated positively with self-transcendence values and negatively with self-enhancement values, whereas prestige work values correlated negatively with self-transcendence values and negatively with self-enhancement values.

Values, Needs and Interests

Values are frequently conceived as a construct arising from basic personal needs. Rokeach (1973) saw values as cognitive representations of underlying needs that take into account social demands, Katz (1993) as culturally influenced manifestations of needs and Brown (1996) as cognitive structures that allow satisfaction of needs in socially acceptable ways. On the other hand, Lofquist and Dawis (1978) conceived values as “source traits” that underlay “surface traits” they called needs. In their theory, work values are higher-order factors comprised of lower order factors, which are referred to as needs.

Super (1995) and Super and Bohn (1970) integrated the view on all three motivational constructs. He saw values and interests all derived from needs, which represent a lack of an important constituent of well-being. In order to satisfy their needs, individuals define particular goals or objectives (values) and try to attain them by engaging in specific activities (interests). Therefore, for Super, values are objectives sought to satisfy needs; and interests are preferences for specific activities through which individuals attain values and meet their needs (Super 1995). Similarly, within the Career Construction Theory, needs are seen as “tensions” or gaps in smooth life course that need to be filled to feel more whole; values are seen as “intentions” or articulated aspirations arising from unfulfilled pasts; interests are “attentions” or personal focus on activities and objects that relieve personal tensions and serve personal intentions (Savickas 2014). Therefore, constructivist and developmental perspectives point to the same flow of motivational forces: “needs shape values and values determine what may become interesting” (Savickas 2014, p.15). The similar view was proposed by Rokeach (1968). For him, values and interests are both cognitive representations of needs and both guide action, and there is a hierarchical relation between values and interests. Interests are narrower than values, represent just one of the many manifestations of values and are specifically related to the attractiveness of certain objects.

The majority of studies that examined relations between interest and values yielded expected and theoretically sound relations between them (e.g., Rottinghaus and Zytowski 2006; Sagiv 2002; Salomone and Muthard 1972; Super 1962; Šverko and Babarović 2006). However, the magnitude of overlapping between these constructs was generally small (e.g., Breme and Cockriel 1975; Leuty and Hansen 2012; Sodano 2011), indicating that values and interests are related but distinctive psychological constructs (Rottinghaus and Zytowski 2006).

The Atlas Model of Individual Differences has provided a framework for integration of different career-related constructs into interest space (Armstrong et al. 2008; Armstrong and Rounds 2010; Rounds and Armstrong 2014). The results showed a logical distribution of values, needs and personality around interest circles. The authors suggest that such joint representations of career-related constructs can be helpful in better understanding connections between individual difference variables.

Life Roles and Their Salience

The Concept of Life Roles

Individuals occupy various positions in their life, such as worker, parent, student, or partner. Each of these positions can be conceived as a *role*, comprising a set of behaviours that are shaped by the expectations of others. When formalised, expectations become norms, often involving subtle punishments and rewards that encourage the expected behaviour. Individuals generally tend to comply with the expectations and norms and thus they enact their roles. Hence, roles can be defined as a pattern of behaviours, rights and duties, which an individual is expected to perform in a given social situation.

The concept of roles has long had a prominent place in social sciences. Mead (1934) used it to explain the roots of social behaviour; Linton (1936) gave it central place in anthropology; Newcomb (1950) built it into his theoretical approach to social psychology; Parsons (1951) considered it essential in the sociological explanation of social action and structure; and Katz and Kahn (1966) defined human organisations as role systems. In a related vein, Super (1980) interweaved the concept of life roles with his theory of career development.

In the last version of his developmental career theory, nowadays known as the Life-Span, Life-Space Theory, Super (1980, 1990) and Super et al. (1996) brought forward a contextual perspective, that is, the view that career development can be properly understood only in the context of all life roles enacted by an individual (Šverko 2006). The work role, although of central importance for many people in many cultures, is only one among many life roles that comprise an individual's "life space". Super considered the life space as a constellation of social functions arranged in a pattern of roles, which are played in four theatres (home, school, work and community). He identified nine primary roles (child, student, worker, partner, parent, citizen, homemaker, leisurite and retiree) that most people play through their lifetime. Some roles are enacted early in the life course (e.g., that of child), others later (e.g., that of student), or still later (e.g., that retiree). To illustrate the role-dynamics across the life span, Super (1980) devised a Life-Career Rainbow, which graphically portrays how the life role constellation changes with life stages.

At some stages of their life, individuals are called on to play a number of roles at once, for example, that of worker, spouse, homemaker, parent, citizen and many others. However, not all of them are equally important to an individual; usually two or three roles are salient, or relatively more important and other roles are peripheral. The salient life roles constitute the core of a person; "they are fundamental for a person's identity and essential for his or her life satisfaction" (Super et al. 1996, p. 129). When enacted simultaneously, the roles interact and impact on each other. The role interaction can be supportive, supplementary, or compensatory, but it can also be conflicting and stressful when the role demands are incompatible or too demanding for the available person's resources. However, as the Life-Career Rainbow depicts, the accumulation of roles and their demands varied across an

individual's life span. As Super put it (1980, p. 288) "roles wax and wane in importance" in accordance with the developmental tasks, which individuals encounter at different life stages. Therefore, to understand an individual's career, it is important to know the salience of her or his life roles and their temporal change.

Life Role Salience

Interest in role salience began with the focus on the work role, once considered central in most peoples' lives. A number of related constructs reflected this focus, such as "work as central life interest" (Dubin 1956), "job involvement" (Lodahl and Kejner 1965), or "career salience" (Greenhaus 1973). Super (1981), however, stressed the need for "a multidimensional model of work salience, in which work is seen as one role which, for real understanding, must be seen in relation to other roles" (p. 31). The Work Importance Study (WIS), an international project launched by Super, sought to conceptualise such a model of role salience (see Super and Šverko 1995). In the WIS, role salience was defined as relative importance of any role in relation to an individual's other important life roles. Based on the discussions among the WIS participants, a structural model of role importance emerged (Super 1981). This triangular model (see Fig. 32.1) assumes three basic criteria of a role importance: (a) commitment, referring to one's affective attachment to a role; (b) participation, a behavioural component, which refers to the amount of time and energy devoted to a role; and (c) knowledge, a cognitive component, which refers to the information gained through direct or vicarious

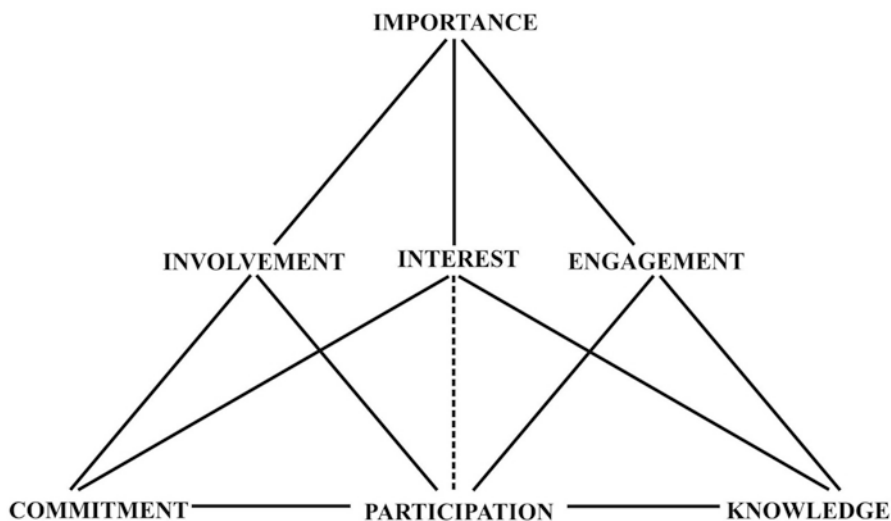


Fig. 32.1 WIS model of role importance. (Adapted from Super 1981)

experience in a role. Twofold combinations of the criteria define the concepts at the intermediate level: involvement with a role (commitment with participation), interest in a role (commitment with knowledge) and engagement (participation with knowledge). All together they define the role importance, the integrative term subsuming all of the component criteria. This model served as a starting point in the development of the *Salience Inventory*, the WIS instrument for assessment of role salience, which is described later.

Values and Role Salience

It is common-sense that the salience of certain life roles reflects some deeper, underlying values. Super (1981) stated that the importance of work role “depends upon individual values and upon opportunities which the labour market and society at large offer for the attainment of those values.” (p. 30). Based on this notion, Šverko (1989) elaborated and tested a model of work-importance determinants, which is shown in Fig. 32.2. In this model, which is grounded in a cognitive, expectancy-theory framework, the central place is given to work values. The perception of their attainment possibilities in work is proposed as the main determinant of work importance (as shown by arrow *d*), moderated by the importance of work values (shown by the arrow *e* directed toward the arrow *d*). Work values are formed through socialisation process (arrows *a* and *b*), while perceptions of their attainment possibilities are additionally influenced by an individual’s own experiences, real or vicarious, from the world of work (arrow *c*).

A correlational study involving large samples of Croatian high-school students, university students and adult workers (Šverko 1989) provided support for the model, in particular for its part dealing with the relationship of work values and importance of work. The study revealed that (a) the perceived attainment possibilities for all

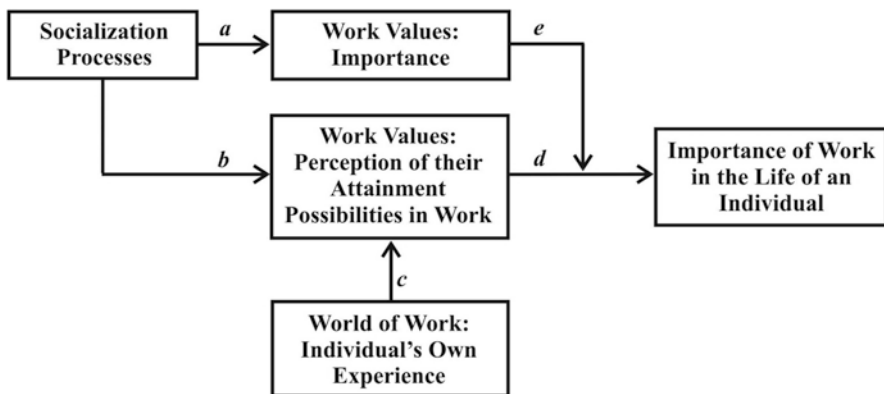


Fig. 32.2 A model of work importance determinants. (Adapted from Šverko 1984)

values correlated substantially with the importance attached to work and (b) the magnitude of these correlations varied with the importance that the individuals assigned to particular values: the values considered more important tended to have higher correlations of their attainment perceptions with the work importance. Essentially the same results were obtained in a replication study with six Australian samples (Lokan 1989).

Although this model was formulated to explain the individual differences in the importance of work role, it obviously has a wider appeal—as a model explaining individual differences in the importance of any life role. Thus, according to this model, the importance of a role depends on an individual's perception of possibilities for attainment of his or her salient values through that role. A similar view has been adopted by Brown and Crace (2002). In explaining the theoretical underpinnings of their *Life Values Inventory*, they stated: “The salience of a single role can be determined by the extent to which that role satisfies crystallised, highly prioritised values” (p. 3).

Assessment of Values and Life Roles

In value assessment, several issues need to be considered. Among them is the dilemma of whether people are able to estimate directly the importance of their values and whether it is more adequate to estimate values by ranking or rating the important priorities, particularly when having in mind cross-cultural perspectives.

Direct and Indirect Assessment of Values

In the *direct* approach people are asked to estimate the importance of number of values. This self-report approach, which is typically used in values inventories, is based on the belief that people are conscious of their values. However, some authors argue that people might be unaware of their values, or might have problems in articulating their value hierarchy (Colozzi 2003; Maio and Olson 1998; Meglino and Ravlin 1998; Šverko and Vizek-Vidović 1995). In such cases, *indirect* measures of values can better depict personal values. In an indirect approach, scenarios that posit different value-conflicts are presented to participants, followed by a possible list of actions. The examinees have to read each scenario and to choose the action they would prefer to do if they were in the same situation (e.g., Baron and Spranca 1997; Kopelman et al. 2003; Mumford et al. 2002; Peng et al. 1997; Ritov and Baron 1999). Indirect measures of values may have advantages as respondents could willingly or unwillingly mask their values, but sometimes they have been referred to as effort- and time-consuming.

Rankings and Ratings of Values

In direct value assessment, respondents can estimate the importance of particular values by ranking or rating. Well-known instruments apply either a ranking (e.g., *Rokeach Values Survey*, *Allport-Vernon-Lindzey Values Study* and *Minnesota Importance Questionnaire*) or a rating method (e.g. *Schwartz's Values Survey*, *Super's Work Values Inventory*, *WIS Values Scale*, *Crace & Brown Life Values Inventory* and *Pryor's Work Aspect Preference Scale*).

A debate on the relative merits and drawbacks of each approach has been extensively addressed in the literature (Alwin and Krosnick 1985; Dawis 1991; Krosnick and Alwin 1988; Maio et al. 1996; McCarty and Shrum 2000; Ng 1982; Oishi et al. 1998; Rankin and Grube 1980). The advocates of ranking stress that this approach is conceptually close to the cognitive process of choosing among different life goals. However, the ranking procedure forces people to choose among two values even if they find them equally important. Such forced differences in importance of values tend to distort the stability of the value hierarchy, particularly in its middle range. Further, ranking of values may be a difficult task for respondents, particularly when the number of values is greater than just a few. Moreover, ranking provides information on the value hierarchy, but not on the level of importance of values. Such ipsative scores indicate only relative importance of values, rather than the absolute importance, and therefore account only for intraindividual differences in the personal value systems.

On the other hand, the rating of values can also be seen as meaningful and parallel to daily life as it reflects the importance assigned to various goals and activities. The importance is assessed in an absolute sense, on a Likert-type scale. Such ratings provide normative scores, which allow various statistical analyses on both an interindividual and an intraindividual level (Karpatschhof and Elkjær 2000). In addition to psychometric qualities of the rating scales, the ease of their application also matters. The respondents' task to estimate the importance of each value on a rating scale is much easier than the ranking of values. Besides, if respondents feel that some values are equally important, they can rate them equally important. However, this potential advantage of ratings easily turns into a disadvantage when measuring values. Values are by definition important life goals and thus people tend to rate them all very important. This yields value ratings with a highly negative asymmetric distribution and restricted range, which can reduce both interindividual and intraindividual differences in values.

The empirical studies on value measurement methods have not universally shown the superiority of either rankings or ratings (Alwin and Krosnick 1985; Krosnick and Alwin 1988; Maio et al. 1996; Rankin and Grube 1980). Some researchers have proposed renovated ranking and rating procedures which lessen their initial weaknesses. For example, Oishi et al. (1998) applied a method of comparison in pairs where values are compared with others in regard to the level of

importance. The 7-point scale ranging from -3 to 3 is used to specify to what extent is one value more important than the other. This ipsative procedure reflects the relative difference in the degree of importance of two values, and also permits respondents to endorse two values equally. On the other hand, Schwartz (1992) proposed an alternative rating procedure, called most-least rating. This procedure assumes pre-scanning of items and identifying the most and least important ones, prior to the rating of values. Owing to the pre-scanning of all items, this procedure provides values scores that are more differentiated and not so skewed and thus improves the psychometric characteristics of the rating method (McCarty and Shrum 2000).

Rankings, Ratings and Cross-Cultural Universality of Measurement

The discussion on ratings and rankings also spreads to the field of cross-cultural comparison of values. For some authors, normative measurement is preferable in cross-cultural study of values (Maio et al. 1996; Ng 1982). Normative value scales allow interindividual analysis which is essential in cross-cultural research. Besides, normative scales are more resistant to cultural specificities. When the content of a value inventory is not representative of all values held in a culture, the ranking of offered values would not represent the real hierarchy of values, as some more important values may be omitted (Ng 1982). Another serious problem of the ranking procedure is the interdependence of items: the importance of one item is expressed relative to others. If the meaning of an item differs across cultures, it will reflect on the whole hierarchy of values. For the same reasons any modification of an ipsative scale (e.g., shortening or lengthening, or adaptation of some items) will generate incomparable results (Ng 1982). Thus, normative scales have methodological advantages and provide greater flexibility in cross-cultural research.

However, the preference for normative measurement is not universal. Some authors claimed that normative scales are more sensitive to cross-cultural differences in response style, which can obscure the comparison of values across cultures (Oishi et al. 2005). Others proposed the behavioural scenario method as better than either the ranking or rating method. With precisely defined behavioural scenarios, measurement of values avoids problems arising from culturally different value meanings and from different reference groups with whom participants compare when estimating the importance values (Peng et al. 1997).

In conclusion, both ipsative and normative methods have their own advantages, depending on the phenomenon one is trying to understand. Ipsative measurement would be appropriate if one is trying to understand clients' personal values and related life or career choices, while normative measurement should be considered if one is interested in comparing values held by different groups, such as occupations, cultures, or else (Meglino and Ravlin 1998; Thompson et al. 1982).

An Overview of Existing Instruments

Measurement of values has its roots in the 1920s and 1930s. After an era of extensive ability assessment, focus of test developers centred on motivation and personality constructs. Seminal work in the field of values assessment was done in 1931, when Allport and Vernon published the first instrument for measurement of personal values—the *Study of Values*. Super developed the first standardised instrument for assessment of work values. Initially prepared for the Career Pattern Study (Super et al. 1957), the instrument was later revised and published as the *Work Values Inventory* (Super 1970, 1973). From then on, numerous values inventories have been created. However, not many measures of life roles salience have been developed so far. In the brief overview that follows, several values measures and one measure of life role salience are presented. We decided to present only newer measures that are more frequently applied in the career context.

The *Minnesota Importance Questionnaire* (MIQ; Rounds et al. 1981) is a measure of work-related needs and values. It measures 20 vocationally relevant “need” dimensions: Ability Utilisation, Achievement, Activity, Advancement, Authority, Company Policies and Practices, Compensation, Co-workers, Creativity, Independence, Moral Values, Recognition, Responsibility, Security, Social Service, Social Status, Supervision-Human Relations, Supervision-Technical, Variety and Working Conditions. The relative importance of “needs” is assessed by comparison in pairs (administration time 30–40 min), or by comparison in pentads (administration time 15–25 min). In addition, the rating scales are provided for assessment of the importance of each need. The rating scales can be used to consider individual normative value profiles or to convert the comparative rankings to an absolute scale (Doering et al. 1988; Stulman and Dawis 1976), which allows interindividual comparisons and the usage of parametric statistics. Scoring is also possible at the level of six more general dimensions (Achievement, Altruism, Comfort, Safety, Status and Autonomy) that have been found to underlie 20 needs. In addition to MIQ, which measures the importance of work facets, two other questionnaires were developed to measure presence of the same work facets and satisfaction with them: the *Minnesota Job Description Questionnaire* (MJDQ) and the *Minnesota Satisfaction Questionnaire* (MSQ). Those three instruments provide a set of commensurate measures for reinforcers, needs/values and satisfaction, all referring to the same work facets (Dawis 2005). Thus, MIQ is the first questionnaire that clearly incorporated value assessment in the P-E fit model.

The *Work Aspect Preference Scale* (WAPS; Pryor 1981, 1983, 1999) is a measure of adults’ and adolescents’ work aspect preferences. It measures 13 work values: Altruism, Co-workers, Creativity, Detachment, Independence, Life style, Management, Money, Physical activity, Prestige, Security, Self-development and Surroundings. Each work value is represented with four specific work aspects. Respondents have to rate the importance of each work aspect on a 5-point scale ranging from 1 (*quite unimportant*) to 5 (*extremely important*). The administration time is approximately 10–20 min. The personal value scores are expressed as a sum

of responses to the four items representing each value. The instrument may be useful in career counselling, rehabilitation of disabled individuals or in research on personal and work values, career development and job satisfaction.

The *Values Scale* (VS) is a multi-scale, Likert-type instrument that assesses the importance both of work values (such as advancement and working conditions) and more general, personal values (such as personal development and life style). It was developed in 1980s by an international consortium of researchers collaborating in the Work Importance Study (WIS; see Super and Šverko 1995), and subsequently adapted in Australia, Belgium, Canada, Croatia, Israel, Italy, Japan, Poland, South Africa and the US. The generic version tapped 20 values while the number of values in the national versions varies between 18 and 21. The VS description is available in the WIS monograph (Super and Šverko 1995) and in the manuals accompanying the national versions (e.g., Coetsier and Claes 1990; Fitzsimmons et al. 1986; Langley et al. 1992; Nevill and Super 1986a; Šverko 1987). Preceded by a phrase “it is now or will be important for me to...”, the items are simple statements such as “to do work that takes advantage of my abilities (ability utilisation), “to get ahead” (advancement), “act on my own” (autonomy), “help people in need” (altruism), “have a high standard of living” (economics), “living according to my ideas” (life style), etc. There are five statements for each of the values. Respondents are asked to indicate the importance of each statement on a 4-point rating scale and their scores are derived by adding their importance ratings over five items composing each value. The VS can be administered to high school, college and adult populations in about 30 min. Although the instrument has been widely used both in research and counselling, there was no attempt to revise the instrument or renew its standardisation.

The *Salience Inventory* (SI) is a multi-scale, Likert-type instrument that measures participation in, commitment to and value expectations from each of the five roles: student, worker, citizen, homemaker and leisure-seeker. Developed in 1980s by the international consortium of researchers collaborating in the Work Importance Study (WIS), the instrument was subsequently adapted in Australia, Belgium, Canada, Croatia, Italy, Japan, Poland, South Africa and the US. The instrument development is described in the WIS monograph (Super and Šverko 1995) and in the manuals accompanying some of the national versions (e.g., Coetsier and Claes 1990; Fitzsimmons et al. 1986; Langley 1990; Nevill and Super 1986b). The SI comprises three components or measurement scales. The Participation scale is behavioural in content; it contains items asking respondents to state, for example, how much time and effort they devote to activities or thinking about various roles. The Commitment scale is affective; it asks subjects to state, for example, how committed they are to being good in the various roles. The third component, the Values Expectation scale, asks respondents to estimate how much opportunity they see for the realisation of each of a range of values in each of the five roles. The Participation and Commitment scales have 10 items each and the Values Expectation scale contain 14 items. Since they apply to each of the five roles, the SI comprises 170 items in total. It takes about 35–45 min to complete the instruments. A summation of scores across the items of each of the scales renders scores which reflect an indi-

vidual's importance attached to each of the five life roles. Although the SI has been widely used both in research and counselling, there was no attempt to revise it or renew the standardisation.

The *Life Values Inventory* (LVI; Brown and Crace 2002; Crace and Brown 2002a, b) measures personal life values and their attainment in three major life roles. It measures 14 life values: Achievement, Belonging, Concern for the Environment, Concern for Others, Creativity, Financial Prosperity, Health and Activity, Humility, Independence, Interdependence, Objective Analysis, Privacy, Responsibility and Spirituality. In the first part of the inventory, each of 14 life values is represented with three specific values (e.g., Creativity is represented with "coming up with new ideas", "being creative" and "discovering new things or ideas") and respondents have to rate each specific value on a 5-point rating scale to estimate the degree to which it currently guides their behaviour. After completing the first part of the inventory, respondents have to rank 14 life values, presented in the second part of the instrument. Finally, in the third part of the instrument, they have to choose and rank the values they wish to fulfil in each of three major life roles: Work, Important Relationships, and Leisure and Community Activities. The inventory is self-scored and provided with advice for interpreting the results and managing particular life situations, like managing career and life roles development, transitions or stress. It takes about 20–30 min to complete the questionnaire. The instrument yields both ipsative and normative scale scores and thus accounts both for intraindividual and interindividual differences. As the authors suggest, the LVI can be helpful in broad life areas: career counselling, retirement counselling and planning, leisure counselling, couples counselling, team building, or other life situations which involve decision making and interpersonal relations (Brown and Crace 2002).

The *Work Values Questionnaire* (WVal; Consiglio et al. 2016) is newly developed scale designed to measure work values within the realm of the Schwartz (1992) theory of basic personal values. It consists of ten clusters of five items where each item expresses one of the ten basic values in the work context. The values and the number of items that operationalise each value (in parentheses) are: Achievement (5), Power (4), Benevolence (6), Universalism (4), Security (5), Tradition (6), Conformity (7), Self-Direction (3), Stimulation (5), Hedonism (5). The clusters of five values are formed of items with similar levels of social desirability. The respondents must rank the items in each cluster according to how important they consider it to be (from 1 – the most important, to 5 – the least important). Accordingly, each value is compared with all other nine values from one to five times. The authors believe that ranking of values within the clusters has several benefits: it enables respondents to compare the importance of each value with several others without having to rank many items at the same time; it forces respondents to express their preferences among different work values that may be subjectively close in their importance, yielding better discrimination; and it can minimise effects of social desirability and faking strategies. The first validation study (Consiglio et al. 2016) showed good reliability of WVal scales and confirmed structural and construct validity of the questionnaire. It gave strong support for the applicability of the

Schwartz basic value theory to the work setting. However, replication studies in other samples and cultures are needed to provide firmer evidence for using the WVal in applied settings.

Values and Life Roles in Career Guidance and Counselling

Values assessment has long been utilised within both career guidance and counselling. However, the view of their role has changed depending on the prevailing theoretical paradigm. This change in the role of values mainly reflects a move from traditional (modern) to what has been termed a postmodern approach to career guidance and counselling.

The Role of Values in the Traditional, Trait-Oriented Approach

Early approaches have emphasised values as person variables that influence individuals' career choice and development. Traditionally, vocational guidance was seen primarily as a process of helping individuals to match their personal traits with those required by occupations in order to enhance their satisfactoriness and satisfaction. By applying the matching paradigm, vocational guidance practitioners assisted their clients in choosing the appropriate career track; that is, the one that was believed to be well matched or congruent with the client's traits. The traits used for matching have changed, however, over the years. In the beginning, during the first decades of the twentieth century, abilities (what a person can do) and interest (what a person likes to do) were used as matching variables. Later, in the 1950s, work values (what a person considers important in work) were added as the third matching variable.

Two streams of research have fostered the use of values in career counselling. The first stream focused on the occupational differences in values. Studies using the Allport-Vernon *Study of Values* (Cantril and Allport 1933; Stone 1933; Vernon and Allport 1931), Super's *Work Values Inventory* (i.e., Carruthers 1968) or *WIS Values Scale* (Šverko et al. 1987), as well as other instruments (e.g., Feather 1982; Rosenberg 1957; Simpson and Simpson 1960) have all shown pronounced values differences among individuals with differing occupational preferences, choices, or attainments. For example, it has been found that individuals preferring, choosing, or attaining business occupations were generally high on utilitarian orientation and material values; people choosing medical occupations, social work and teaching appeared to be high in social values, in particular on altruism; while individuals choosing architecture, art and literature stress self-expression and autonomous lifestyle. Although it is possible that the type of occupational activity pursued may reinforce certain values, it is quite probable that a choice of the occupational activity pursued is at least in part influenced by an individual's value system.

A related line of research was based on the idea of a person-environment (P-E) fit, or congruence, the approach especially stressed by the Theory of Work Adjustment (Dawis 1996; Dawis and Lofquist 1984). The assumption is that individuals seek work environments that are tuned to their work personality structure, including abilities, needs and values. The degree of fit between a person's personality structure and occupational reinforcer patterns is supposed to predict job satisfaction. The studies with the *Minnesota Importance Questionnaire* support this proposition: Rounds (1990) and Rounds et al. (1987) reported that the congruence among personal and environmental characteristics explained from 3% to 30% of the variance in satisfaction. For comparison, according to meta-analytic studies, the congruence among peoples' interests and work environment explained only up to 5% of the variance in satisfaction (Spokane et al. 2000; Transberg et al. 1993; Tsabari et al. 2005). Thus, it seems that work values provide stronger linkage to job satisfaction than vocational interests, at least for adults (Rounds 1990).

These two lines of research laid the groundwork for assessment of values differences in career counselling. Most career counsellors assess clients' values as a person variable, along with abilities, interests and personality traits. They accept the tenet that people look for certain values in their work and that careers offer varying opportunities for attaining these values. Thus, exploring the clients' values typically has served as the first step in a counselling process aimed at channelling the client's inclinations towards occupational environments deemed congruent with their values. Moreover, assessing personal values constitutes an important part of computer-assisted career guidance (CACG) systems, such as the system for integrative guidance information (SIGI) or the Occupational Information Network (O*NET).

The Role of Values in Developmental and Constructivist Approaches

Values and life role salience are also used within wider developmental approaches to career planning. Although values are relatively stable characteristic, individuals may also change their values during their life course (Savickas 2014). Different social contexts may offer different opportunities for value attainment. For example, the same values cannot be attained in school and in work, and jobs and positions differ in opportunities for value fulfilment. Further, different life stages and engagement in different life roles may also reorganise personal value priorities. Becoming a parent or starting a new job may very likely give rise to different values. Any career or life transition may lead to changes in values priorities. To fully understand personal career, it is important to be aware of the dynamic nature of values and life roles.

Developmental approaches are designed to help clients understand the meaning of their careers in the life span, within the larger framework of multiple life roles.

One example of such approaches is Super's Career Development, Assessment and Counselling Model (C-DAC), which relies on collecting a large array of information about the client, including detailed information about their values, role salience and values expectations related to various life roles. The model assesses clients' interests and expressed preferences "as basic status data to be viewed in the light of career maturity, the salience of life roles and the values sought in life as moderator variables" (Super et al. 2001, p. 74).

The developmental perspective has been further developed within the constructivist framework. The career construction perspective focuses on constellation of individual's motives, rather than looking at each one independently (Savickas 2014). This holistic approach tends to be not just a summation of information on personal interests, values and needs, but more as a joint picture of their prominence and relevance during certain period of time. Career construction theory aims to "add a long view of the client's motives" (Savickas 2014, p. 7) which can enrich psychological portraits and can help in clarifying career choices. As career is seen as individual's progression through the course of working life, the purpose of constructivist approach to career counselling and research is to explore the unfolding of individuals' careers by studying life histories. This idiographic approach focuses on personal meaning given to certain life experiences, rather than on individual differences on career-related traits, as in the nomothetic approach. Understanding vocational behaviour from the subjective perspective involves autobiographical narratives in which individuals tell stories about their life history and current circumstances (Savickas 2014). This method offers a view of the person in context and leads to understanding the individuality and uniqueness of personal career.

The career construction counselling is based in narrative approach. In several sessions, client narrates personal life history which gives meaning to personal career and life as a whole. By narrating earliest memories, individuals refer to their needs; by portraying personal role models and their characteristics, individuals express their values; by describing favourite magazines and TV shows, they denote their interests; and by narrating their favourite stories they integrate their needs, values and interests into purposeful action and life and career construction.

Therefore, in career constructivist approach, values are not assessed, but are narrated. A Structured Career Construction Interview is used to explore values as manifested in real behaviour (Savickas 2014, 2015). Value inventories, as all self-report measure, are sensitive to intentional or unintentional masking of values (Šverko and Vizek-Vidović 1995). While responding to inventory items, people may not be fully aware of their values, or may want to present themselves at best, by not being fully sincere. Savickas (2014) suggests that values assessed through career construction interview are operative and more strongly related to career behaviour. In the post-modern era a strong emphasis was put on qualitative career assessment, which is believed "to better accommodate the increasing complexities and subjectivity, of individual career development in the twenty-first century" (Patton 2015, p. VII).

Values as a Context Variable

At the turn of this century, the interest in career-related applications of value assessment has been shifted from individual work values to “cultural values”, that is, the values which are typical of certain cultural groups (Carter 1991; Brown 2002). As career guidance has evolved in many countries and became a world-wide phenomenon, questions have been raised about applicability of career theories and approaches to different contexts. Besides, in developed countries, in particular the U.S., where the main theoretical models were formulated, an increased awareness of needs of diverse populations (differing in race, ethnicity, gender, socioeconomic class, sexual orientation, age, or geographic origin) has heightened concerns about the cultural relevance of career theory and practice (e.g., Fitzgerald and Betz 1994; Kerka 2003; Leong 1995; Leung 1995; Wehrly et al. 1999). These developments and the need for better understanding of cultural differences, have stressed the importance of values and life roles as two fundamental elements of subjective culture (Triandis 1994). It was suggested that their appropriate assessment as a “context variable” offers perspectives for enhancing the cross-cultural relevance of career theory and practice (Hartung 2002, 2006). These trends may open new prospects for a wider use of the general values inventories and measures of role salience, along with the qualitative approaches for exploring the role of cultural values in career choices (Kantamneni and Fouad 2014).

Concluding Remarks

Postmodern approaches emphasise the crucial importance of meaning making, narratives and client’s construction of her or his own life and career. They also favour qualitative approaches to value assessment and stress the importance of values as a context variable. With all these emphases, values take on added relevance in career assessment and counselling. But, this is not to say that the traditional view of values as a personal variable should be dismissed as outdated, as it is all too often implied. Recent views encourage integration of qualitative and quantitative approaches to career assessment interventions (e.g., Sampson et al. 2015; Watson 2017). Therefore, an all-round approach, viewing values both as a person and a context variable and utilising the advantages of both quantitative and qualitative assessments, is strongly recommended. Such an approach, which takes into account the unique advantages of various perspectives, may further enhance the assessment and the role of values in career guidance and counselling.

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Chapter 33

Abuse and Misuse of Psychometrics as a Threat to Vocational Psychology



Peter McIlveen and Harsha N. Perera 

Abstract Psychometrics—the science and technology of measuring psychological constructs—is a definitive feature of vocational psychology and career development. For a century, vocational psychology has produced and refined measures for research and practices in diverse industry sectors, including education, training, selection, and recruitment. We overview the philosophical foundations of post-positivism in contrast to an anti-psychometrics discourse emanating from critical scholarship so as to raise concerns that this critical commentary threatens the public’s understanding of psychometrics, their ethical use, and utility. It is time for psychology to advocate for its science and technology, and push back against the iconoclastic rhetoric of its protagonists in the struggle for knowledge/power.

Keywords Psychometrics · Career assessment · Postmodernism · Standardized testing · NAPLAN

A red rose. Is it a beautiful thing? Most people would agree a red rose is a beautiful thing. Most people would recognise its unmistakable rosy scent and its luxuriant velvet petals. For these people, the rose’s scent, sight, and softness may evoke thoughts, memories, future wishes, and perhaps emotions and behaviours. About all these things we may agree but the experience of the rose will be inherently individual. So common is humanity’s shared adoration of the rose that its scent is reproduced for all to share in the form of perfumes, soaps, and other aesthetic pleasures. Such exquisite sharing is only possible by the similarities of humanity, those human characteristics that allow humans to know the world in common, yet, all the while, knowing that everyone has a slightly different experience and way of knowing.

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Therein, the paradigm of post-positivism in vocational psychology knows commonality in humanity with hues of individual differences. Conceptualising psychological phenomena, formulating these as theoretical constructs, and arriving at agreed forms of description and observation, is normal science to an adherent of vocational psychology and career development. Formulating measures of these constructs underpins the technological practices of psychological assessment—psychometrics. The science that is vocational psychology has informed the practices of career development for than 100 years. A good science (and scientist) welcomes critique, counter-argument, counter-factual, and evidence that renders a hypothesis rejected. This is the hallmark of hypothetico-deductive science (Popper 1935/2005).

Vocational psychology emerged intellectually richer because of the so-called postmodern turn (Savickas 1993) that began as a revolutionary critique to repurpose the science and profession (Richardson 1993; Savickas 1993), with some moderated enthusiasm (Savickas 1994). Progressively, postmodernist thinking that influenced psychology (Berger and Luckmann 1966), broadly (Gergen 1992, 2001; Kvale 1992; McAdams 1997; Prilleltensky 1997, 1998), and vocational psychology, specifically (Blustein 2001; Richardson 2000), brought about transformative perspectives (Savickas 1995) for renovating theory (Patton and McMahan 2014) and models of practice (Brott 2001; Polkinghorne 1992; Savickas 1992, 1993, 2001). For this intellectual boon, there is no regret. Postmodernist thinking challenged and induced vocational psychology into the birth of a new era that ushered in theories and practices emanating from the paradigms constructivism and social constructionism (Young and Collin 2004; Young and Popadiuk 2012). These momentous changes were brought about by critical thinking from within psychology and vocational psychology. Unfortunately, now there is an anti-scientific cacophony emanating from the academic discourses of education that springs from postmodernism and threatens to erode one of psychology's and vocational psychology's greatest technologies: psychometrics.

Psychology has produced no less than a century of contributions to knowledge and practices for education, but now it is susceptible to the critical hail of revisionists aiming to deconstruct post-positivist ways of knowing and doing evidence-based education. Blatant critical rhetoric is now focused on a treasury of knowledge accreted by researchers and practitioners who have given much to education by way of their science and technology. In the name of critical scholarship, iconoclasts fix their gaze on high profile large-scale assessment and psychometric tools used for educational policy research and development, such as the Program for International Student Assessment (PISA) for OECD nations and within our Australian context, the National Assessment Program Literacy and Numeracy (NAPLAN). The problem is that these arguments fallaciously conflate psychometrics with governmentality. Of course, the former may fall victim to the latter, but such intellectual violence in no way excuses misuse and abuse of psychometrics. Pernicious critical scholarship is writ large in media and academic literature and we cite examples of the critical literature in which NAPLAN is the focus.

The Rose in Post-positivism

All the sub-disciplines of psychology would have something to contribute to knowledge of the human experience of the problem of the rose, and all would admit that there are subtle unknowable individual differences between person to person, but all would theorise about that which makes us common (i.e., human). The post-positivist paradigm assumes that reality can be known and reported as experience shared among people with some degree of fuzziness due to individual and situational differences. The abiding quality of post-positivism is that it invites critique (Popper 1935/2005). The hypothetico-deductive method articulated by Popper requires scholars to make every reasonable attempt to reject a hypothesis drawn from a particular theory. If a theory stands up to scrutiny and continues to make sense of a phenomenon more so than other theories, then that theory is taken as a preferred approximation of reality. To empiricists who measure, the “unknown” is known as “error”; to a post-positivist, error is a way of affirmatively knowing what is not the case; it is an observe image of reality.

The post-positivist science and technology, psychometrics, is born of “individual differences”. In post-positivist statistical terms, what “variation” is known about a given phenomenon is “explained variance” and that variation which remains unexplained is “residual variance”. According to the tenets of its ways of knowing, post-positivism is honest enough to definitively describe what is not and tentatively describe what possibly is. Such a stance is scientific.

Post-modernist Elision Is But an Illusion

Ironically, postmodernism would require no precision and specificity in its discourse because its inherent slipperiness eschews critique, even from itself. Postmodernism is too broad a term to be definitively meaningful. One definition is an intellectual movement of scepticism and loss of faith in cultural and social institutions, evinced as an incredulity and criticism of grand meta-narratives (Lyotard 1979/1984). This postmodern incredulity is a lack of trust, of belief, or even faith—an apostasy of sorts. Science is, however, and has always been, a discipline of trial and error, not of faith and doctrine. Science wears the criticism of postmodernists who are intent on deconstructing its ontological and epistemological foundations. It is as if postmodernism invented sceptical thought. The fact is that scepticism, the philosophy, and the sceptical questioning attitude that is quintessentially a feature of scientific thought were present long before postmodernism.

All the while postmodernist scholars rail against the agreed standards of what constitutes knowledge according to post-positivism because their espoused criticism creates new perspectives (Gergen 1992, 2001). This is little more than intellectual violence whereby the adherents of one discipline aim to epistemologically eradicate “the other”. What is patently evident is that postmodernism has failed to

produce any substantive theory of pragmatic worth from these new perspectives. And, new perspectives these may be; however, a barren wasteland of empty ideas is not something to behold. Critical theorists' guerrilla methodology is a hit and run approach to undermining other ways of knowing but it offers nothing in return for its aggression, for it is easier to destroy than to create. Critical theorists will name its offenders "colonisers", yet they fail to name themselves "guerrillas" with a revolutionary intent to obliterate the epistemology of the colonisers. With what would these critical theorists replace current knowledge and cherished tradition? Ask them. One may suspect that the answer will be little more than another volley of criticism.

One postmodernist acolyte, Michele Foucault—a veritable genius—refused to define his position on many contentious topics. His critique of mental illness in "The Birth of the Clinic" (Foucault 1994) is a touchstone for critical thinkers because it wrought a powerful argument that, quite rationally, brought the epistemology of psychiatry and clinical psychology into question. *The Birth of the Clinic* was a powerful force for good in the era of de-institutionalisation. It inspired new perspectives on mental illness, conceptualising it as a social construction in a discourse driven by the epistemology of the "medical model". Great good came from this intellectual treatise on the power of discourse and power/knowledge. Indeed, the theories and practices of the mental health professions changed for the better. But, it was not the criticism that enabled patients to leave the institutions; it was, ironically, breakthroughs in medical science that produced new medications with lower side-effect profiles (e.g., Prozac); it was breakthroughs in psychological science that produced new therapies focused on changing thoughts and behaviours necessary for living in the real world (e.g., behaviour therapy) and community mental health services that enabled individuals to live a better quality of life.

The "gold standard" of postmodern philosophy is the things that constitute the ordinary, day-to-day experiences of life—otherwise known as reality to most folk—are not really real; these things are ephemeral, on the surface, a pastiche, relative, contestable, and inevitably someone else's property acquired by colonisation. In other words, a postmodern view is that one's reality cannot be one's own and it cannot be real because experiences in the moment are a fleeting embodied flourish of discourse experienced "as if" real.

A radical outcome of postmodernist views on what is reality and knowledge is that one's sense of oneself is not personally possessed, despite one's experiences of knowing oneself and possessing oneself. According to the postmodern vision, one's sense of self is merely a reflection of interactions with others while immersed in a discourse established by powers beyond oneself and others. Apparently, a sense of purchase over oneself, as a self, is a pragmatic lie propagated by discursive dynamics beyond conscious awareness. The postmodernists have it that the choices one makes are determined by external powers; one has no volition because thoughts have been set up to arrive at conclusions according to some arcane powers beyond one's imagination; one is just a victim, an automaton influenced by external powers who control knowledge and, therefore, power. This line of postmodernist thinking

makes way for scholars who argue against the primacy of lived reality and that everyday notion otherwise known as “the individual”.

The most pernicious outcome of postmodernism is that the individual is no longer responsible for being. The individual is abnegated, abrogated, absolved, and, ultimately, absented from reality. This is an invitation to nihilism. Only self-responsibility and living an ethical life in relation to and in agreement with others can resolve such nihilism. Relations and agreement require, by definition, an agreed set of standards as to what is real, relatable, and reasonable to one another, rather than a relativist revisionist stance that leaves a nobody standing nowhere knowing nothing. To where will such philosophy end up? At the edge of Nietzsche’s abyss?

That your lived, daily experience affirms to you that you are a someone knowingly knowing something is reason to doubt postmodernist (un)reality and (un)knowledge. As a mere human, you are unable to know the future (Hume 1748/2007); however, you are able to know your experiences of the present in the present, and in relation to others and the physical world, real and imagined—and this is necessary and sufficient to be in the moment. What you do with in that “reality” is your choice and, therefore, the reality you produce for yourself by your actions in relation to others and the physical environment, is you producing your life experienced as real to you. This is not a solipsistic take on reality, for it assumes that reality cannot be known in absence of others. Dispense with doubting Descartes and his *cogito ergo sum*, for doubt cannot be formed without a language to construct the very questions that compose doubt. Descartes could not have raised the doubts without the very language in which they were composed. No one human can create a language in the absence of another person if the other is to understand that language. It is possible for one human to create a language that is known only to that single human whereby that one talks with himself. This language of autopoiesis is a nihilistic pit, a trap of narcissism; it has no way of testing its veracity beyond its own logic, can know only itself, and thereby collapses into a singularity that has no connection to the universe—it is an existential black hole.

To be sure: doubt is intrinsic to post-positivism. Doubt is a definitive feature of hypothetico-deductivism (Popper 1935/2005). If, having withstood repeated tests by ostensibly counterfactual evidentiary data, then a theory survives another day. This critique by way of evidence is vastly different to critique by way of mere rhetoric and polemic. The difference between doubt in post-positivism and nihilism in postmodernism is that the former aims to create knowledge that is contextualised, pragmatic, and directed toward action in the world, whereas the latter lauds doubt as a research method in and of itself, with one inexorable objective: destruction of knowledge. *Ipsa facto*, postmodern critical scholars are beholden to no axiology that informs what is “right” and “wrong” in any given context. Present to critical scholars a question that challenges their position and, rest assured, they will soon enough call up charges of colonisation or some other rhetorical flourish to “other” the challenger.

Critical Theory, Critical Pedagogy

Within education there is a school of thought under the aegis of critical theory and critical pedagogy (e.g., Kellner 2003). Adherents of this school take it upon themselves to call out social structures that maintain social strictures of marginalisation, suppression, and colonisation. The fallacious arguments made by critical pedagogues may conflate psychometrics with some other educational practice that is the focus of their withering critique (e.g., segregation; Knoester and Au 2017). In their argument to change spaces within schools to favour a relational culture (which is not an unreasonable idea), Gitlin and Ingerski (2018) subtly blame standardised testing:

Currently the space of schooling is constructed for sorting through testing...Sorting is fueled by and the result of standardized testing, as well as the supposed objectivity of the standardized test itself. Just as the “rows of seats” illustrates separation of students from each other, so too does testing separate students by putting them in competition with each other.... If standardized tests are fair and objective as claimed, then at least the sorting is fair and objective. (p. 17)

...a standardized test that does nothing to transform the relationship of the space of the school and adjacent experiences is inherently unfair. (p. 18)

The rhetorical elision is that standardised tests are the means to separate students from one another. The authors provide no review of relevant standardised tests that may or may not be relevant to the notion of space and relationships within school. Rather, they merely criticize standardised tests to support their claims for their neo-critical pedagogy. We now turn to an example of the misuse and abuse of psychometrics to emphasize the seriousness of the threat to psychometrics.

Inappropriate Utilisation of Psychometrics

Within the academic literature about teaching and teacher education there is a mixture of polemical and empirical papers addressing teachers' understanding, administration, and application of Australia's National Assessment Program - Literacy and Numeracy (NAPLAN) assessment procedures and reports. An important theme is that NAPLAN has indeed been used inappropriately to further political ends and misused by teachers who manipulate data. Another theme within the literature portrays teachers (and schools) as hapless victims or rebels against a politicised education system. What can be obfuscated in the flurry of critique is that it was the Australian Government's website, My School (<https://www.myschool.edu.au>), that published summary NAPLAN data and that these summaries were consumed by the media—and critics—as a way to compare and contrast the performance of schools, to create league tables to (mis)inform families and students about their schools. So vociferous were the critics of NAPLAN that it became a focus of the political class

and The Senate of Australia, no less, held a public enquiry into NAPLAN and its use within My School (Ragusa and Bousfield 2017; The Senate 2010).

In Australia, schools are part of complex systems of curricula, policies, laws, and government bureaucracies at state and federal levels. NAPLAN is a joint initiative of the federal and state governments. What makes NAPLAN political is that schools' results contribute to negotiating funding arrangements between the federal and state governments, and the schools. Furthermore, comparisons among the states are grist for media seeking stories that may become political embarrassments. Lingard and Sellar's (2013) interviews with senior public services and experts, and analysis of NAPLAN data, led to their conclusion that a system of perverse financial incentives and political pressures underpin a dynamic in which NAPLAN results are the centrepiece. It would seem that state governments manipulated their agreed targets for literacy and numeracy levels in order to avoid political embarrassment or to attract funds from the federal government. Their findings are corroborated by other case studies in which schools' funding agreements were influenced by NAPLAN results (Lewis and Hardy 2015).

A survey of teachers found their attitudes toward standardised assessment reporting to be positive, on the whole (Pierce et al. 2013); however, only 28% agreed with the item about NAPLAN's utility for assessing student achievement. One of the factors identified in the research is that some teachers report insufficient confidence to use the data. Further research into teachers' statistical literacy highlighted the value of professional learning activities that enhance teachers' use of data (Pierce et al. 2014).

The most disturbing topic within the academic literature is about teachers manipulating NAPLAN administration. Thompson and Cook (2014) state,

This article argues that manipulating the data is a regrettable, but logical, response to manifestations of teaching where only the data counts [sic]. (p. 129)

...increasing numbers of teachers are responding by manipulating the data. Conceiving these responses to high stakes testing as manipulation, and not cheating, reflects a changing understanding of teaching brought about by the NAPLAN tests themselves. (p. 131)

...manipulating the data is likely to proliferate in the near future, as teachers come to understand ever more about the new 'rules of the game'. (p. 140)

Thompson and Cook draw from the literature a list of manipulative strategies that may minimise negative and maximise positive impacts on NAPLAN test results. It is somewhat reassuring that Thompson and Cook provided no empirical evidence for their claims that teachers are manipulating NAPLAN. Nonetheless, analysis of Australian media suggests some evidence of manipulation by teachers (Shine 2015). Research involving interviews with teachers, principals and other school personnel did not report on deliberate manipulation; at worst, there was evidence of "actively preparing students to sit the test, including, whether intentionally or unintentionally, teaching to the test" (Hardy 2015, p. 359).

The research cited here goes to the argument that NAPLAN has been misused in political and educational domains (Ragusa and Bousfield 2017). When governments

“game the system” (Lingard and Sellar 2013, p. 634) and teachers manipulate data (Thompson and Cook 2014) there is a risk that NAPLAN becomes disreputable in eye of the public. Analysis of the Hansard reporting of the government inquiry (Ragusa and Bousfield 2017) provides evidence of that risk materialising. That politicians and public servants engaging in manipulate behaviour to protect their government reputation is a cynical act of expedience. Teachers who manipulate NAPLAN are not enacting the standards of their profession (Australian Institute for Teaching and School Leadership 2011). This misuse threatens the public’s acceptance of NAPLAN and, by implication, may threaten acceptance of other psychometric tools.

Public Rhetoric About Psychometrics

Now we consider the very public rhetoric that is critical of NAPLAN to exemplify the misuse and abuse psychometrics. We turn a critical gaze on the rhetoric of those who would remonstrate against NAPLAN. The rhetoric in scope of our critique is antithetical to the fair use of psychometrics in education. We provide excerpts of news articles that includes NAPLAN in the list of alleged culprits for students not choosing to take degrees in teacher education, that NAPLAN is a solipsistic measure of itself, and that NAPLAN is an instrument for social engineering to maintain the middle-class.

Since NAPLAN’s inception, *The Conversation* featured a series of articles addressing standardised assessment and NAPLAN in particular. *The Conversation* is an online newspaper that is available free of charge to readers (<https://www.the-conversation.com>). Its content is supplied by academic experts and a section of its charter specifies, “inform public debate with knowledge-based journalism that is responsible, ethical and supported by evidence.” *The Conversation* is produced by a not-for-profit entity with financial sponsorship from benevolent bodies, including charities and universities. To be fair and balanced in our polemic, we acknowledge *The Conversation* includes articles that describe the merits of NAPLAN and how to optimise its utility for teaching practice and education policy (e.g., Hardy 2016, December 14; Jackson et al. 2017, November 24). We focus our critical gaze on a selection of articles because not only is their rhetoric contestable but also *The Conversation* is esteemed as a source of independent journalism based in academic expertise.

Consider this enticing headline, “Seven Reasons People No Longer Want To Be Teachers” (Bahr and Ferreira 2018, April 16). The authors claim, “The oldest profession—teaching—is no longer attractive” and bolster this claim with summary statistics that show decline in student preferences for entry into degrees in teacher education in Australia. What is not given is a link to the report from which the statistics emanate. Instead, the authors provide a link to another article in a newspaper that is protected by a paywall and owned by the media behemoth, News Corp. The authors do not present longitudinal trend data that would contextualise the single

year of statistics used to support the alarming headline. The article goes on to list seven reasons why the profession is so apparently unattractive. Among their reasons is, given under the bold subheading, “Standardised testing obsession”:

Standardised testing has become a national sport, with PISA and NAPLAN. Much class time is spent preparing students to do well. The stakes are high for the teachers and their schools. While teachers do need to test their students to check on their progress, the national obsession is a problem. Teachers spend a great deal of time preparing students for these tests. Standardised tests are a unique testing genre, and teachers need to attend to this preparation without abandoning everything else they need to do. This is a challenge, and the first casualty is teacher creativity. International reports also argue this point. Where’s the fun in teaching if you don’t have scope to be creative?

There is a subtle elision in the narrative that leads the reader to the assertion that standardised tests—NAPLAN—diminish teachers’ creativity! A caption under a photograph of a young student with pen in hand states, “Standardised tests, like NAPLAN, contribute to lack of enthusiasm to take up teaching”. The ostensible relation between the photograph of a student holding a pen and the caption is unclear.

As for any evidence to support these statements there is very little given in the article. There is a hyperlink embedded in the text “the first casualty is teacher creativity” to a heartfelt story written by an ostensibly disenchanting teacher who begins her blog article, “I was born into a long line of teachers, and with my mother and grandmother as key influences, I had a childhood very much focused on creativity and education.” Therein the author renders a tragic story about creativity’s apparent destruction in education—all very sad, but no evidence is forthcoming. And, as for the “International reports”, the word “report” is hyperlinked to a segment of a book, not to an empirical study that actually proffers evidence for the exaggerated claim that teachers’ creativity is doomed by NAPLAN and its ilk.

On the contrary, research conducted by the Australian Institute for Teaching & School Leadership (2016, 2017) did not report evidence that that NAPLAN is diminishing the vitality of the profession. A reasonable reaction to Bahr and Ferreira (2018) would have the reader ask the question, “Does Australia have a high rate of teacher attrition?” AITSL’s (2017) answer seems rather straightforward: “No one knows for sure. Australia currently doesn’t have a system to produce national shared data to tell us if teacher attrition is a problem here. Research estimates of teacher attrition vary widely from 8% to 50%.” Notwithstanding Bahr and Ferreira (2018) citing 1 year of data for their claim that nobody wants to be a teacher, AITSL makes the point that there is a need for a national data warehouse to determine rates and causes of attraction and retention for the profession—in other words, there is no reliable dataset on which to make rather alarming claims that “The oldest profession—teaching—is no longer attractive” and to subtly include NAPLAN in the blame list.

The Australian Government collects data about potential students’ applications, the offers of places from universities, and students’ rates of acceptance of their offers (Department of Education & Training 2017). If one takes the number of applications to initial teacher education qualifications as evidence of the profession’s

popularity among potential students, then one may curiously draw an alternative conclusion to the impending demise exclaimed by Bahr and Ferreira (2018), who cited a decline in 2017–2018 applications to initial teacher education. Using such logic, one may (erroneously) conclude that the profession of teaching would grow in popularity based on the 2016–2017 data that show a 2% increase in applications. However, 1 year of data is insufficient evidence to make a substantial claim about a profession’s attractiveness. Indeed, inspection of application and offer data extending from 2010 to 2017 reveals evidence of rather limited change in applications ranging between 30,746 and 27,185, and actual offers between 24,346 and 22,215. That consistently more than 20,000 students per year in the 8-year period enter into teacher education degrees is reason to conclude the profession is actually attractive to newcomers. Furthermore, other empirical research suggests the potential for rising demand for teachers and oversupply in some sectors (Weldon 2015), and that teaching remains a popular choice for school students who participated in a longitudinal study of career aspirations (Gore et al. 2016) (Table 33.1).

What should one make of these data in light of the “Seven Reasons People No Longer Want To Be Teachers” proposed by Bahr and Ferreira (2018)? Their article published by *The Conversation* casts NAPLAN as one of the reasons for people no longer wanting to be teachers. It is too late to withdraw that pernicious message about NAPLAN; the article has been shared widely via social media and republished in other outlets. What should one make of the *The Conversation’s* editorial scrutiny and professed aim to “inform public debate with knowledge-based journalism that is responsible, ethical and supported by evidence”? As for the alarming claim about people not wanting to become teachers, at least the evidence of applications and offers (Department of Education & Training 2017) absolves NAPLAN of guilt on this count.

Anti-psychometric and anti-NAPLAN rhetoric continues unabated in other articles in *The Conversation*. One critic states, “just as I.Q. tests do little more than test someone’s ability to do an I.Q. test, NAPLAN primarily measures students’ capacity to effectively sit NAPLAN tests” (Riddle 2013, May 14). This assertion stands on its own in the article, as one sentence, as a paragraph, without an explanation of its meaning, as if it were a self-evident truth. As a way forward, the author suggests that music is a useful medium for teaching literacy and then concludes “perhaps if NAPLAN could measure singing then things would be very different” (Riddle 2013, May 14). These statements about NAPLAN are in the public domain. How would a reader without knowledge of the fundamentals of psychometrics and educational

Table 33.1 Number of applications to undergraduate degrees in initial teacher education, number of offers to applicants, and proportion of application to offer across 2010–2017

	2010	2011	2012	2013	2014	2015	2016	2017
Applicants	30,746	28,503	29,717	29,604	28,812	28,382	27,185	27,733
Applicants receiving offers	23,633	22,808	24,001	24,346	24,001	24,121	22,215	22,382
Offer rate	76.9%	80.0%	80.8%	82.2%	83.3%	85.0%	81.7%	80.7%

Adapted from Department of Education & Training (2017, p. 28)

assessment understand these statements published by an ostensibly reputable source and a learned scholar?

Another alarming title “Testing Democracy: NAPLAN Produces Culture of Compliance” (Sriprakash and Loughland 2014, August 20) headlines the framing of NAPLAN as an assault against democracy. The authors blame NAPLAN for narrowing the curriculum and state:

The displacement of critical thinking by NAPLAN positions schools as instruments of social control, rather than being sites for creativity, debate and change. The stakes are particularly high for the disadvantaged.

The authors allude to NAPLAN’s role in the middle-class replicating itself by way of an educational regimen that maintains social privilege and power structures. These dystopic concerns echo other claims that NAPLAN “tests have also been criticised of having an Anglo-Australian bias that privileges white, middle class world views” (Riddle 2013, May 14).

There are no secrets. Yet, the critical commentary would have the public believe NAPLAN to be nothing less than a threat to education and democracy. NAPLAN’s limitations are known and openly discussed in a government enquiry (The Senate 2010), and the technical reports about NAPLAN are available in the public domain (<https://www.nap.edu.au/>).

Summary and Conclusion

NAPLAN has become a target of vitriolic rhetoric that may undermine the public’s view of standardised testing in education. One will not find in critical pedagogues’ arguments any evidence that empirically challenges psychometrics on its own epistemological terms, amidst the data and methods of data analysis. Instead, one will find click-bate bleats on social media aghast at psychological science and technology. What is transpiring is a discursive incursion by critical scholars whose discourse is imprecise. Unless challenged, their rhetoric—reasonable or otherwise—will not only colonise the disciplinary discourse of psychology, but also erode the public’s trust in empirical psychology and the technologies it has refined over a century.

Vocational psychology stands to lose a great deal if its intellectual heritage and treasury of psychometrics is disregarded because the critical cacophony convinces key stakeholders that *interests*, for example, cannot be assessed by psychometric methods. Now is the time for vocational psychology to address this threat to its intellectual heritage and, moreover, its future as a science that is the predominant source of knowledge for the career development profession.

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Chapter 34

Qualitative Career Assessment: A Higher Profile in the Twenty-First Century?



Mary McMahon

Abstract Career assessment, including qualitative career assessment, has a long history in career development. To date, qualitative career assessment has a much more limited profile in career counselling than its quantitative counterpart which has amassed an abundance of psychometric career assessment instruments and research. In practice, both forms of assessment may be used to complement each other. Qualitative career assessment is theoretically consistent with narrative career counselling which has proliferated in the twenty-first century and is therefore well positioned to assume a higher profile. However, a higher profile has not eventuated and qualitative career assessment, despite its strengths and advantages, remains beset with a number of challenges including a lack of definitional clarity and a limited evidence base. This chapter overviews qualitative assessment in career counselling and begins by considering what exactly qualitative career assessment is. Subsequently it discusses assessment in career counselling and provides a brief history of qualitative career assessment. Following this, the chapter overviews the use and development of qualitative career assessment, and briefly describes some common instruments. A discussion of the advantages and disadvantages of qualitative career assessment and the challenges it faces concludes the chapter.

Keywords Qualitative career assessment · Career assessment · Qualitative assessment · Narrative career counselling

Since the publication of this chapter in the first edition of this book, a positive answer to the question posed in the title remains aspirational. In the decade since then, a significant milestone however, has been achieved in the publication of the first book on qualitative career assessment (McMahon and Watson 2015a). While the book could suggest a higher profile has been achieved for qualitative career assessment, a review of journal articles on qualitative career assessment published between 1993 and 2017 (McMahon et al. 2019) revealed a similar picture to that

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in 2008 when this chapter was first published. The review provides a clear picture of the extent and nature of the limited literature on qualitative career assessment but concomitantly identifies challenges for this undervalued and under-researched form of assessment.

Against this background, this chapter overviews qualitative assessment in career counselling, beginning with a discussion about what exactly qualitative career assessment is. Subsequently it discusses assessment in career counselling and provides a brief history of qualitative career assessment. Following this, the chapter overviews the use and development of qualitative career assessment, and briefly describes some common instruments. A discussion of the advantages and disadvantages of qualitative career assessment and the challenges it faces concludes the chapter.

What Is Qualitative Career Assessment?

Beginning a discussion on qualitative career assessment would be incomplete without first considering what career assessment is. Career assessment has been a feature of career guidance since its inception in the work of Parsons (1909) and is intended to assist clients with career exploration and self-exploration and deep self-understanding of personal traits, external factors and environmental barriers (de Bruin and de Bruin 2017) and with career decision making (Sampson 2009). Similarly, Osborn and Zunker (2016) conceptualise the use of career assessment results as “a learning process emphasizing the development of self-knowledge” (p. 2). In career counselling, career assessment differs from psychological testing, which seeks to obtain information about an individual or groups of people and “refers to the selection, administration, and scoring of tests” (de Bruin and de Bruin 2017, p. 187) related to personal traits such as ability, aptitude, interests, values and personality. Career assessment “goes beyond psychological testing” (de Bruin and de Bruin 2017, p. 187) to gather information from different sources and make meaning of it in the context of the client’s life, background, culture, environment and experience.

So, what is qualitative career assessment? The answer to this seemingly simple question reveals one of the greatest challenges facing qualitative career assessment—that of definitional clarity (McMahon et al. 2019). For example, qualitative career assessment has been variously described as “informal” (Okocha 1998, pp. 151–152), “flexible, open-ended, holistic, and nonstatistical” (Goldman 1992, p. 616), “nonstandardized and nonquantitatively based measurement that provides an informal means of gaining a more holistic and integrative understanding of personal meanings associated with life experiences” (Palladino Schultheiss 2005, p. 382), “idiographic” (Brott 2015, p. 32), “non-standardized” (Osborn and Zunker 2016, p. 163), and “real-life stimuli that evoke responses from adult clients based on

their experiences, on their real-life circumstances and situations” (Gysbers 2006, p. 97). Similarly, the comparatively simple term qualitative career assessment itself is not applied consistently, with some authors using qualitative career assessment (e.g., Rehfuss et al. 2011; Whiston and Rahardja 2005), qualitative assessment (e.g., Barner 2011; Palladino Schultheiss 2005), “qualitative approaches” (Palladino Schultheiss 2005, p. 381), “qualitative career assessment process” (McMahon et al. 2015, p. 171) and “qualitative instrument” (Rehfuss and Di Fabio 2012, p. 459). While the challenge of definitional clarity remains, for the purposes of their review, McMahon et al. (2019) adopted the description of qualitative career assessment as “a structured qualitative instrument, technique or process that facilitates participant reflection”, which reflects elements of a range of definitions and provides a useful starting point for this chapter.

Qualitative career assessment is strongly aligned with constructivist and social constructionist theory and approaches to career counselling with their emphasis on active agency and the construction of meaning within the context of life. As evident in the previous descriptions, qualitative career assessment helps clients through a reflection process to “know and understand themselves better” (Goldman 1992, p. 616) and is a form of career development learning (McMahon and Watson 2015a, b).

It should not, however, be assumed that all qualitative career assessment is constructivist in orientation as some can be used in more traditional objective, matching and predictive ways that are in keeping with the logical positivist worldview that underpins standardised psychological assessment. Indeed, the logical positivist worldview informs most career assessment, which is, in general, quantitative in nature. Such assessment has retained a high profile in career counselling work compared with qualitative career assessment, which has to date had a very limited profile (McMahon et al., 2019; McMahon and Patton 2017) as reflected in Osborn and Zunker’s (2016) text on using career assessment results where one chapter out of 11 focuses specifically on qualitative career assessment.

Subsequent to Savickas’s (1993) call for a move from scores to stories, narrative approaches to career counselling that are underpinned by constructivist and social constructionist philosophies have been more widely adopted. Such approaches are philosophically aligned with qualitative career assessment and suggest that qualitative career assessment may be more widely used in the twenty-first century, and that its place could be “strengthened relative to but not to the exclusion of quantitative assessment” (McMahon and Patton 2002, p. 58). This, however, has not been the case and, therefore, similar to the first edition of this chapter, I again hope that this chapter will assist in raising the profile of qualitative career assessment within the career development field. This chapter is, however, in no way intended to promote one form of assessment over the other. Both forms of career assessment have a purpose, offer a range of potential benefits to clients, and can operate in complementary ways (see McMahon and Watson 2012; Osborn and Zunker 2016; Watson 2017; Watson and McMahon 2015).

Assessment in Career Counselling

Since the origins of the vocational guidance movement over a century ago, assessment has been integral to its practice (Chartrand and Walsh 2001; Heppner and Jung 2012). For most of that time, the emphasis has been on quantitative assessment. This is evidenced in a review of journal articles on qualitative career assessment published in the eight most well-known career development journals since 1993, which found that relatively few articles have been published (McMahon et al. 2019). Thus, it seems that the traditional emphasis on quantitative assessment remains and that the profile of qualitative career assessment is still limited.

Assessment has been one of the distinguishing features between career counselling and personal counselling, and has largely determined the structure of the career counselling process and the roles assumed by career counsellors and clients. Many career counselling models that feature assessment have been proffered and generally stereotypically suggest a linear, counsellor dominated process where career counsellors have responsibility for assessment, diagnosis and prediction, clients assume a more passive role (de Bruin and de Bruin 2017; McMahon and Patton 2002), and the client-counsellor relationship is not emphasised.

In general, these models are derived from a theory base that is consistent with the logical positivist worldview and emanate out of the work of Frank Parsons who is widely regarded as the founder of vocational guidance and career counselling (Pope and Sveinsdottir 2005). Such models tend to be predicated on assessment and focused on vocational or occupational decision-making based on self-understanding, world of work knowledge, and “true reasoning on the relations of these two groups of facts” (Parsons 1909, p. 5). These three elements of career-decision making have pervaded career counselling and career assessment to the present day and represent Parson’s lasting legacy to the field. In essence, Parsons’ (1909) work represents the “first conceptual framework for career decision-making and became the first guide for career counselors” (Brown 2002, p. 4). The matching process promoted by Parsons has dominated career practice to the present day as it gave rise to what has come to be known as trait and factor approaches and, subsequently, person-environment fit approaches to career theory and practice.

However, over two decades ago, attention was drawn to rapid changes in the world of work and the complexity of people’s careers in the contexts of their lives. Moreover, the range of clients seeking career development services is becoming more diverse, and concerns have been expressed about whether traditional trait and factor approaches are sufficient to meet their complex needs (e.g., Patton and McMahon 2014, 2017; Savickas 1996). Consequently, vocational psychology began to look for new ways of assisting people with their career development concerns and also in “making meaning of the experiences of work in their lives” (Palladino Schultheiss 2005, p. 381). Responses to this dilemma have come in the form of contemporary theories and practices that are primarily underpinned by constructivism and social constructionism that place emphasis on individual agency, meaning making, and context.

Described as a “narrative turn” (Hartung 2013, p. 33), career counselling has increasingly embraced the use of narrative and story that are more consistent with a constructivist worldview (e.g., Amundson 2009; Hartung 2013; Patton and McMahon 2017; Peavy 1998; Savickas 1993) and more facilitative of the use of qualitative career assessment, which recognises individuals as active agents in the construction of their careers and in the career counselling and assessment processes. Such contemporary approaches suggest the construction of new identities for clients and career counsellors, and for career development practice generally (Patton and McMahon 2017; Watson and McMahon 2005). Thus, a wider range of approaches to career counselling and to career assessment now co-exist where the needs of clients should determine the procedures used (de Bruin and de Bruin 2017; Sampson et al. 2015) regardless of their philosophical base; “it is not what tool you use but how you use it” (Brott 2015, p. 38). The two approaches to career assessment can complement each other (McMahon et al. 2018; Osborn and Zunker 2016; Sampson et al. 2015), and a polarised view is not helpful (Sampson 2009). Indeed, in a caution to all users of career assessment, de Bruin and de Bruin (2017) claim that

there is nothing inherently good or bad about standardised psychological tests or qualitative assessment techniques. It is the uses to which they are put, and the manner in which this is done, that can be good or bad ... The needs of the client should be the primary driving force in selecting assessment techniques, and not the preferences and prejudices of the counsellor (p. 186).

Despite a special issue of the *Journal of Career Assessment* devoted to qualitative career assessment (Walsh 2005), and a practice climate that is conducive to the use of qualitative career assessment, in general, publication of journal articles on qualitative career assessment in the major career development journals is infrequent and spasmodic (McMahon et al. 2019). But is qualitative career assessment something that has emerged in relatively recent times or does it have a longer history in vocational psychology?

Qualitative Career Assessment: Something Old or Something New?

McMahon and Patton (2017) suggested that the history of career assessment located in the work of Parsons (1909) may be multi-storied, and that the dominant story that has pervaded is that related to quantitative assessment. Further, these authors suggested that the dominant story may have silenced or overshadowed a possible alternative story related to Parsons’ emphasis on intrapersonal and interpersonal concerns in career decision-making (O’Brien 2001), his acknowledgement of a broader context, and the active role he encouraged clients to assume in their career decision-making. These elements of the alternative story are more consistent with the constructivist worldview than with the logical positivist worldview and led to the claim over two decades ago that “Parsons presaged the constructivist position”

(Spokane and Glickman 1994, p. 298). Indeed, McDaniels (1994) surmised that Parsons would not be happy about the “extensive overuse of standardized tests and inventories” (p. 328) in career counselling, a sentiment reflected by Bradley (1994) who wondered how tests and counselling ever became partners. Reflecting the sentiments of McDaniels (1994), Osborn and Zunker (2016) have more recently advised that “testing and interpreting score reports should not dominate the counseling process” (p. 2) and that greater emphasis should be placed on the client-counsellor relationship.

Parsons (1909) encouraged the active involvement of clients in the career assessment process through their completion of a 100 item “personal record and self-analysis” questionnaire (p. 27) prior to their career counselling interview. His questionnaire represented a self-assessment tool completed in private that facilitated personal analysis and self-understanding. He also encouraged clients to gather occupational information through methods such as reading, work observation, and work experience, and to enlist assistance, if necessary, from influential people from their social context such as family, friends, employers or teachers. In addition, he encouraged clients to reflect on contextual influences such as family, health, resources, such as financial status, lifestyle and mobility as well as to gather information on abilities and interests. Parsons encouraged his clients to reflect analytically on the information they gathered and to integrate it and to make their own decisions. Clearly, Parsons acknowledged the influence of contextual factors in the career decision-making process and took a more holistic view that accords with the constructivist worldview. Thus, there is evidence in Parsons’ work of the constructivist notions of active agency, meaning making, and acknowledgement of context and of contemporary advice that career assessment should incorporate information from and about a range of career influences (de Bruin and de Bruin 2017; McMahon et al. 2015; Osborn and Zunker 2016).

The self-assessment and written tasks expected of clients by Parsons are reflective of self-assessment techniques that are used today such as genograms, written exercises, the drawing of lifelines, and occupational card sorts. Such techniques constitute qualitative career assessment processes. Thus, it seems that qualitative career assessment is indeed not something new, but rather something that has existed throughout the history of vocational guidance. Indeed, Donald Super (1954), while acknowledging the contribution of what he termed the “*actuarial method*” (author italics) based on the “*trait theory* of vocational guidance” (p. 12; author italics), proposed that other theories and approaches which could support the prevailing method should be investigated. Drawing on life history methods, he termed such methods “*extrapolation based on thematic analysis* (author italics), and the underlying theory is the *theory of life patterns*” (Super 1954, p. 13; author italics). Super proposed that themes and trends in past development and behaviour could be used to predict future development and behaviour.

Further evidence that qualitative career assessment is not something new is reflected in the pioneering work of Tyler (1959, 1961) who developed the vocational card sort. Tyler focused on the uniqueness of individuals and attempted to develop

a “workable psychology of individuality” (1959, p. 75). Her work led to what she described as “a kind of assessment quite different from trait measurement, namely, the direct assessment of choice patterns” (Tyler 1959, p. 78). Corresponding with Tyler’s belief that “the core of individuality consists of a person’s choices and the way he organizes them” (Tyler 1961, p. 195), she developed a vocational card sort based on four sets of cards, occupations, leisure time activities, community organisations and first names. In 1961, Tyler reported on the application of her vocational card sort of 100 cards each depicting one occupation. Tyler initially invited her clients to identify those occupations they would choose or not choose and those occupations about which they had no opinion, and subsequently to categorise their choices and to explain what each category represented. Throughout this process Tyler observed factors such as their general approach to the task, the level of distinction of the categories, and their ability to explain their categories. Ultimately Tyler was able to produce descriptive accounts of her clients.

Dolliver’s (1967) work in further developing Tyler’s vocational card sort is significant in that he was the first to apply Kelly’s (1955) personal construct theory to career counselling. In particular, he used Kelly’s theory as the basis for creating a model of career counselling with the Tyler vocational card sort. Also credited with further development of the vocational card sort is Dewey (1974) who believed that it and other vocational tests were sexist and consequently developed the *Non-Sexist Vocational Card Sort* (NSVCS) that could be used with both men and women. In essence, the NSVCS offered the same occupational alternatives to both men and women, neutralised occupational titles and used the process of counselling to confront sex-role biases (Dewey 1974). However, in keeping with its vocational card sort origins, the NSVCS actively involved clients in the assessment and counselling process and maintained a focus on the criteria used by clients to make vocational decisions.

As evident in the work of Dolliver, Kelly’s (1955) personal construct theory has been influential in qualitative career assessment including that other than card sorts (e.g., Neimeyer 1989, 1992b). Personal constructs are created when individuals abstract “a common theme from two or more events, by contrasting what is similar from what is different” (Forster 1992, p. 176) and, in doing so, explore and construct a “unique matrix of meaning” (Neimeyer 1992b, p. 164) that fosters self-understanding and may assist them to better anticipate and understand future events and articulate goals. While not specifically focusing on vocational psychology or career counselling, Kelly (1955) referred to occupational and vocational choice and recognised that vocational choice “has far-reaching implications to one’s approach to life ... more than the assigned workaday duties and the size of the paycheck” (p. 747). By drawing attention to the personal meaning of vocational choice, Kelly was one of the first writers to highlight the relationship between personal counselling and career counselling (Neimeyer 1988), a topic which has been the subject of much debate in the field of career counselling particularly in the 1990s (e.g., Krumboltz 1993; Savickas 1993; Subich 1993) and more recently as narrative career counselling has become more influential.

Kelly's (1955) work influenced career theory, practice and research to the extent that a special issue of the *Journal of Career Development* (Neimeyer 1992a) focused on personal constructs and career choice. In addition, Super (1953) drew on Kelly's work in the development of his theory of vocational development (Brown 2002). Kelly advocated listening to what clients say and taking it at face value thus allowing "direct, two-way (rather than expert, one-way) communication to take place" (Jankowicz 1987, p. 485) as evident in narrative career counselling.

Kelly (1955) proposed techniques through which individuals could construct dimensions of meaning including the *Role Construct Repertory Test* (reptest) and laddering. Repests are "any form of sorting test which allows for the assessment of relationships between constructs and which yields these primary data in matrix form" (Bannister and Mair 1968, p. 136). For example, in completing a vocational reptest, an individual may be presented with elements such as three occupations and asked to identify the way in which two are alike and differ from a third, a process which is recorded on a matrix or grid. Repertory grids may be analysed using statistical procedures (Neimeyer 1988, 1989, 1992b) that are logical positivist in orientation as well as assist individuals to elaborate meaning and self-understanding, a tenet of constructivism. Laddering techniques may be regarded as "miniature structured interviews" (Neimeyer 1992b, p. 168) that may complement vocational grids. Both laddering and repertory grid techniques demonstrate the importance Kelly placed on communication and giving individuals an opportunity to express themselves.

As these brief outlines of the work of Parsons and other pioneers in the history of the vocational card sort demonstrate, qualitative career assessment is most certainly not something new. However, as mentioned previously, it has received surprisingly little attention in the career development literature.

Using Qualitative Career Assessment

Despite its long history, there has traditionally been little to guide career counsellors in the use of qualitative career assessment. This may relate to Peavy's (1998) long-standing claim that terms such as diagnosis and assessment do not fit well with counselling, a claim that is reflected in traditional models of career counselling that identify diagnosis, assessment and counselling as separate and distinct (Subich 2001). Qualitative career assessment may reduce the traditional distinction between the processes of assessment and counselling (Goldman 1990) by enabling them to co-exist as concurrent processes as evidenced by Brott's (2017) integration of qualitative career assessment instruments such as card sorts, lifelines, and life roles circles into the process of her storied approach to narrative career counselling. Further, several authors (e.g., Pryor and Bright 2015; Sampson et al. 2015; Watson and McMahon 2015; Watson 2017) have demonstrated the integrative use of quantitative and qualitative career assessment in career counselling.

While traditional models of career counselling depicted linear step by step processes, career counselling based on constructivism is less easy to depict in terms of steps or stages. McMahon and Patton (2017) suggested a process that emphasises the counsellor client relationship, story, meaning making, and the active agency of the client. In this process, the career counsellor enters the lifespace of the client and invites them to tell stories from which the need for assessment of any form, quantitative or qualitative, will evolve as the client's story unfolds and their needs and issues emerge as advocated by several authors (e. g., de Bruin and de Bruin 2017; Sampson et al. 2015). In addition, clients have greater input into the selection and interpretation of any assessment processes used. Compared with traditional step by step models of career counselling emanating out of the logical positivist worldview, this process suggests more flexibility, is collaborative and recognises the agency of clients; it is the *process* rather than the assessment instrument that enables clients to have more control in career counselling (Brott 2015).

McMahon and Patton's process is reflective of Neimeyer and Neimeyer's (1993) contention that qualitative assessment is inherently a change-generating process as it is integral to the counselling process rather than separate from it. In addition, McMahon and Patton's process illustrates how assessment, either quantitative or qualitative, may be "embedded in the career counselling process in a seamless integration that helps individuals address work and personal issues in productive ways" (Whiston and Rahardja 2005, p. 379). Reflective of this process, McMahon and Patton (2002) proposed the following guidelines for using qualitative career assessment in career counselling:

- Individualise the process for the client;
- Map the qualitative assessment onto the story previously told by the client;
- Make the qualitative assessment fit for the client not the client fit the assessment;
- Broach the subject of using a qualitative assessment device tentatively, respectfully, and informatively;
- Acknowledge that it is the client's prerogative to engage in the activity;
- Work with and support the client through the process of the assessment using counselling skills;
- Debrief/process the activity;
- Invite feedback on qualitative assessment processes; and
- Be creative.

While these guidelines are not intended to be prescriptive, they do suggest differences from traditional career counselling models, evidence of the influence of constructivism and social constructionism, and the "narrative turn" (Hartung 2013, p. 33) in career counselling. Specifically, the guidelines emphasise the following:

- The counselling relationship rather than the delivery of the service (Savickas 1992);
- The active participation of the client in the assessment process rather than being a "passive responder" (Goldman 1990, p. 205);

- Career counsellors assuming a role as an interested, curious, and tentative inquirer, respectful listener, and tentative observer (McMahon and Patton 2002, p. 59) rather than that of expert;
- Subjectivity and stories rather than objectivity and scores (Savickas 1993);
- A flexible rather than linear process;
- Optional and negotiated use of career assessment rather than its automatic use; and
- Collaborative engagement in assessment rather than career-counsellor-dominated selection, administration, and interpretation of assessment.

The guidelines suggested by McMahon and Patton (2002) and their emphases are evident in the work of Parsons (1909) and also in the development of vocational card sorts.

Developing Qualitative Career Assessment

Just as there is little to guide the use of qualitative career assessment, so too has there been little to guide the development of qualitative career assessment even though it has been suggested that the development of qualitative career assessment processes can be a creative process (McMahon and Patton 2002), and that career counsellors may develop their own assessment processes (Goldman 1992; Osborn et al. 2015). To date, one set of suggestions for the development of qualitative career assessment has been offered as follows (McMahon et al. 2003):

- Ground the assessment process in theory;
- Test the career assessment process;
- Ensure that the process may be completed in a reasonable time frame;
- Design a process that fosters holism;
- Write the instructions for the client;
- Write instructions that are easily understood and readable;
- Sequence the process in logical, simple, small, achievable steps;
- Provide a structure that facilitates both a sense of direction and enough flexibility to cater for individuality;
- Structure processes that encourage the co-operative involvement of both counsellor and client; and
- Include a debriefing process to elicit new learnings and meaning.

Subsequently, McMahon et al. (2005) described the application of these steps in a rigorous process of developing the qualitative career assessment process, *My System of Career Influences* (MSCI).

Types of Qualitative Career Assessment

It is not possible in the space of this chapter to comprehensively describe the extensive range of qualitative career assessment instruments that exists and has been documented (see McMahon and Watson 2015a). In their edited book, McMahon and Watson emphasised the use of qualitative career assessment as a learning process and categorised the instruments described in their book according to the predominant learning style of the instrument. For example, card sorts, lifelines and genograms were categorised as visual learning processes, early recollections and other interviews were categorised as auditory learning processes, and card sorts were categorised as kinaesthetic learning processes. In general, qualitative career assessment instruments have either been developed by career counsellors themselves (e.g., as the application of a theory) or adopted from other disciplines. For the purposes of this chapter, an illustrative selection of qualitative assessment processes has been selected. First, card sorts, the most well-known form of qualitative career assessment will be described. Second, a brief synopsis of some common and useful qualitative assessment processes developed by career counsellors will be presented, and, finally, assessment instruments adopted from other disciplines by career counsellors will follow.

Card Sorts

Card sorts are possibly the most common form of qualitative assessment available to career counsellors. As a technique, card sorts do “not claim a particular theory as its knowledge base” and “could find a theoretical home in many camps” (Osborn et al. 2015, p. 82) depending on their focus (e.g., interests, work values). Most card sorts focus on a particular topic such as occupations, values, skills, interests, or motivation. As discussed earlier in the work of Tyler (1961), the card sort process generally involves clients selecting cards and discussing their selections with a career counsellor. The focus in card sorts is generally not on objective measurement but rather on the meaning projected onto the card stimuli by clients as well as ongoing meaning making throughout the card sort process (Osborn et al. 2015).

Some card sorts used in career counselling, however, are grounded in theories of classification and are supported by extensive statistical documentation (Parker 2017). Thus, client choices are meant to predict their suitability for certain kinds of work or activity, and career counsellors are participating in a traditional, classification-based approach that is reflective of the logical positivist worldview. In this regard, Parker (2006) suggested that “the context in which cards are sorted, the instructions given and the relationship between the client and the assessor/counsellor are all fundamental in differentiating between usage that is or is not constructivist in approach” (p. 177).

An example of a card sort that is constructivist in orientation is Parker's (1996) *Intelligent Career Card Sort* (ICCS), which is an online career exploration system (Parker and Arthur 2015). Using three sets of cards, each reflecting three interdependent ways of knowing—knowing-how, knowing-why, and knowing-whom—the ICCS offers an holistic approach to narrative generation in which self-awareness is fundamental (Parker 2002, 2006; Parker and Arthur 2015). A body of research attests to the utility and practicality of the ICCS.

Card sorts have several advantages that enhance career counselling, including a structure and the promotion of inclusivity in the client counsellor relationship (Gysbers et al. 2003), a “tactile approach, flexibility, creativity, and their use in developing cognitive maps of how those enacting a career organise their world” (Parker 2017, p. 250). Card sorts reduce client dependency on career counsellors and may enhance communication and feedback processes. A further advantage of card sorts is that they may be tailored to the needs of particular clients, and “the tactile aspect of physically sorting the cards (or of being in control of a computer based, on-line card sort) is particularly favourable for people who have a kinaesthetic learning style” (Parker 2006, p. 177). Since the work of Tyler (1959, 1961), cards sorts have maintained a place in career counselling as a valuable qualitative assessment tool.

Qualitative Career Assessment Developed by Career Counsellors

A number of writers (e.g., Amundson 2009; Amundson and Smith 2015; Gysbers 2006; Gysbers et al. 2003; McIlveen 2006; McMahon et al. 2013, 2017; Peavy 1998, 2004; Savickas 1992, 2002, 2011; Savickas and Hartung 2012) have developed and described qualitative career assessment processes that complement their theoretical and practical work. For example, drawing on the work of Adler (1937), Savickas (1992, 2002, 2011), and more recently Maree (2015), described the use of early recollections in which clients are invited to tell stories from their childhood, which in turn reveal elements of life themes that can guide vocational behaviour. Savickas suggested that people begin to script their lives from an early age in their families of origin and that career counsellors, once aware of such themes, may work with clients towards overcoming obstacles and the achievement of their goals. In the application of his career construction theory, Savickas (2002) described a holistic assessment process that, in turn, focuses on life-space, career adaptability, vocational self-concept and career themes, and vocational identity. Subsequently, Savickas has developed a career construction interview based on structured questions (Savickas 2011; Savickas and Hartung 2012), which is widely used.

Reflective of the verbal process of Savickas (1992, 2002), Gysbers et al. (2003) described their qualitative assessment procedure, *Life Career Assessment* (LCA). In essence, LCA is a structured interview process that encourages individuals to focus on their experiences in order to systematically gather information in a relatively short period (Gysbers 2006). The LCA consists of four sections including career

assessment (work experience, education and training, leisure), typical day, strengths and obstacles and summary. LCA encourages individuals to explore, talk and learn about themselves (Gysbers 2006) through life career theme identification and may be integrated into a longer career counselling process.

Amundson (2009) and Amundson and Smith (2015) described a number of qualitative career assessment tools such as mind mapping, card sorts and the use of metaphors that may be used to enhance career counselling using his active engagement approach. Reflecting a similar intention to Savickas's (1992, 2002) use of early recollections and life themes, Amundson's pattern identification exercise is built on the premise that life patterns will be revealed by examining previous experiences that are not necessarily work related. Experiences may be drawn from any facet of life, and career counsellors guide clients through a process of recalling positives and negatives about the experience which they record on chart paper. Following this, patterns and themes are examined and their application to career choices or action planning is discussed. Thus Amundson (2009) and Amundson and Smith (2015) enable clients to create a visual record by recording their comments on chart paper unlike other interviews which rely on a verbal process (e.g., Gysbers et al. 2003; Savickas 2011).

Emanating from his socio-dynamic approach to counselling, Peavy's (1998, 2004) life-space mapping exercise is a visualisation process in which client and counsellor work together to represent the client's ideas and feelings about an issue in a visual form. Through this mapping activity, patterns, conflicts, and contexts become more visible. Peavy (2004) claimed that life-space mapping is "an excellent tool for creating a future and planning on how to move toward that future" (p. 85).

Patton and McMahon's (2014) Systems Theory Framework (STF) of career development has stimulated the development of the adolescent and adult versions of *My System of Career Influences* (MSCI; McMahon et al. 2013, 2017) reflection process. Presented in booklet format, the MSCI invites individuals to reflect on their current career decision and guides them through a process in which they identify influences on their career and represent them in a system of influences diagram. The MSCI is holistic and invites clients to explore the narratives or stories of their life career (McMahon et al. 2004).

Qualitative Assessment Adopted by Career Counsellors

While the qualitative career assessment processes previously described are clearly attributable to the work of particular authors, a number of other assessment processes have been adopted from other disciplines for use in career counselling. Two that are more commonly used in career counselling, genograms and lifelines, will be briefly described here. Constructing lifelines (see Brott 2004; Fritz and van Zyl 2015; Goldman 1992; McMahon and Patton 2015) is useful for assisting clients to review their life histories. Lifelines are sometimes referred to as timelines, yet they serve different purposes (Fritz and van Zyl 2015). For example, timelines present

the sequence of an event while lifelines capture a life history of significant events (Fritz and van Zyl 2015). Well-constructed lifelines may enable the patterns and themes of an individual's life-career become more visible. Individuals may see trends which they had not realised or gain insight into experiences (Goldman 1992). In using lifelines to complement her storied approach to career counselling (Brott 2001, 2004) observed that it is an interactive process that enables career counsellors to "hear client's stories and for clients to hear their stories in new ways" (p. 193). Lifelines offer a career exploration process through which individuals make meaning of their past experiences and consider the influence of those experiences on the current and future life (Fritz and van Zyl 2015).

Genograms (see Bakshi and Satish 2015; Di Fabio 2015; Gysbers 2006; Gysbers et al. 2003; Okiishi 1987; Okocha 1998; Thorngren and Feit 2001), sometimes adapted as family trees or occupational trees, provide an opportunity for developing meaning around the social, economic, psychological, and cultural influences of an individual's family (Gysbers et al. 2003). A genogram is a "visual representation of multiple generations of a family system" (Bakshi and Satish 2015, p. 69). Adopted from the field of family therapy (Di Fabio 2015), genograms provide an opportunity for connecting past and present, understanding the dynamics of the present (Gysbers et al. 2003), and subsequently connect past and present with a view to designing their future (Di Fabio 2015). The construction of a genogram engages clients and career counsellors verbally, visually and kinaesthetically. Information may be gathered about family values in relation to gender roles or education, the nature of family support, socioeconomic and ethnic background, and family patterns of decision-making and coping with transition.

Advantages and Disadvantages of Qualitative Career Assessment

As evidenced by the previous descriptions, qualitative career assessment is grounded in the lived experience of clients who are viewed as experts with stories to tell. Thus, clients are expected to be active participants in the career counselling process, which in turn defines, and places importance on, the client/career counsellor relationship. Qualitative career assessment reduces the gap between assessment and counselling and also between career counselling and personal counselling. In essence, qualitative assessment is intended to encourage individuals to tell their own career stories, and uncover their subjective careers and life themes, thus reflecting the post-modern shift from objectivity to subjectivity or from scores to stories (Savickas 1993). Qualitative career assessment values client interpretation and meaning. Qualitative career assessment is able to cater for a broad range of learning styles (McMahon and Watson 2015a) and, unlike standardised assessment instruments, may be adapted to suit the needs of individuals. In this regard, qualitative career assessment is adaptable and flexible enough to meet the needs of diverse clients (e.g., Bakshi and Satish 2015; Goldman 1990, 1992; Subich 1996).

However, Goldman (1992) cautions that qualitative assessment tends to be more time consuming and labour intensive than quantitative assessment. For example, career counsellors have an extensive role to play in setting the scene for, facilitating, and debriefing the qualitative assessment process in order that individuals derive meaning, insight and learning from it. Thus, qualitative assessment requires the career counsellor to be actively involved in the process from beginning to end (Goldman 1990).

Challenges Facing Qualitative Career Assessment

Qualitative career assessment is not without its challenges. First and foremost, as discussed earlier in this article, is the lack of definitional clarity about what exactly constitutes qualitative career assessment. This issue remains unresolved. A second and considerable challenge for qualitative career assessment lies in its limited literature and the quality of its research base (McMahon and Watson 2015b; McMahon et al. 2019; Stead and Davis 2015). This is not a new issue and dates back at least to 1954 when Super recognised that the “*actuarial method*” (p. 12; author italics) was supported by a considerable body of knowledge, techniques and instruments and that further research was needed to better understand life patterning and a thematic-extrapolative approach to vocational guidance. Similarly, Stead and Davis (2015) have more recently noted in relation to qualitative career assessment that “evidence for research assessments is important as it provides scientific substantiation for the assessment used” (p. 26).

An issue that has always faced the developers of qualitative career assessment is that of psychometric adequacy (Neimeyer and Neimeyer 1993) and there has been criticism that qualitative career assessment has questionable reliability and validity, is too informal, and lacks scientific rigour (Okocha 1998; Stead and Davis 2015). For example, Tyler (1961) grappled with issues of reliability and validity as they applied to her qualitative assessment instrument, the vocational card sort. However, the “psychometric concepts of reliability and validity do not apply” to qualitative career assessment (Gysbers 2006, p. 97) because they “evolved for the assessment of quantitative research” (Richardson 1996, pp. 191–192) which has a different philosophical base. Adequacy in qualitative career assessment should be interpreted from an idiographic perspective (Brott 2015). While the criteria for adequacy of quantitative assessment informed by the logical positivist worldview are “normative and statistical”, qualitative assessment is informed by the constructivist worldview, and the criteria for adequacy should be “primarily interpretive and phenomenological” (Niemeyer and Niemeyer 1993, p. 23). Trustworthiness (Lincoln and Guba 1985) is widely accepted as a marker of rigour in qualitative research through its criteria of credibility, dependability and confirmability (Stead and Davis 2015). Indeed, Viney and Nagy (2012) have applied these criteria as well as the criteria of transferability in personal construct research. In career counselling practice, Brott (2015) advocates the relevance of the four criteria in the use of qualitative career

assessment as idiographic tools that “give a credible, transferable, dependable, and confirmable voice to the subjective client story” (p. 34). Qualitative career assessment has now been closely scrutinised (e. g., McMahon and Watson, 2015a, b; McMahon et al. 2019; Stead and Davis 2015) and the challenges identified. While such challenges remain unresolved, a future agenda has been proposed that may be addressed by future researchers and practitioners and includes the adoption of consistent terminology, greater rigour in reporting research on qualitative career assessment, increasing the focus in training programs on narrative career counselling, qualitative career assessment, and qualitative research, and employing culturally valid research methods (McMahon et al. 2019).

Conclusion

Qualitative career assessment has much to offer career counsellors. However, to date it has had a very limited profile in the literature. Now, early in the twenty-first century, as career counsellors face challenges associated with relevant practice, it is timely to consider the possible contribution of qualitative career assessment. Qualitative career assessment in no way is intended to replace traditional standardised quantitative assessment processes. Together they may offer career counsellors a broad range of options and a greater capacity to meet the challenges of a rapidly changing world of work and the complex needs of an increasingly diverse client group. Qualitative career assessment is not without its practice and research challenges but practitioners and researchers have been alerted to them and are encouraged to address them in the future to strengthen the field. Hopefully, the twenty-first century will see a rising profile for qualitative career assessment.

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Chapter 35

Ethical Issues in Testing and Assessment



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Abstract Ethical standards and guidelines for testing are necessary, as they promote and regulate professional behavior. While there are many professional association codes of conduct promoting ethical issues in testing and assessment, *The Universal Declaration of Ethical Principles for Psychologists* is discussed, as it is a document reflecting the principles and values expected of a code of conduct. In addition and more specifically, standards, guidelines and the responsibilities for ethical test usage are reflected on, such as that found in the International Test Commission, which promotes effective testing and assessment policies. There are a variety of issues pertinent to tests and assessment and these are discussed, namely cross-cultural applicability and transportability of tests, translation guidelines, telepsychology, computer and Internet-based assessment, privacy and confidentiality, feedback and assessment, test publishers and authors, culturally competent career assessment practice, and special populations such as children and adolescents.

Keywords Ethical codes · Test standards · Test guidelines · Cross-cultural testing · Telepsychology · Internet assessment

Career assessment involves a process of gathering information to facilitate career development, assist in understanding and coping with career-related problems or concerns, and facilitate informed career decision-making. To help individuals clarify their self-knowledge and assist in career decision-making, career assessment often includes the use of psychometric instruments or tests, however, its focus is much broader. It encompasses assessing and integrating all vocationally relevant variables that may influence an individual's career decisions (AERA et al. 2014). For example, contextual aspects, such as: country of origin, language, values, customs, beliefs, the nature of work and the workforce, and others – are central to understanding assessment results. It also is important to consider the influence of culture on behaviour, and the cultural context of career assessment (Blustein and

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Ellis 2000). Culturally specific variables to assess include: racial and ethnic identity, acculturation, worldview, socio-economic status, gender role expectations, family expectations and responsibilities, primary language, and relationships among others (Fouad 1993).

Across the globe, technological and economic factors are changing the fundamental nature of work and the workforce, creating different needs among clients who use or benefit from career assessment tools (Baruch and Bozionelos 2011). Career practitioners need to understand these changes so that they can effectively select and use career assessment tools in a manner that is consistent with ethically competent practice (Chartrand and Walsh 2001). Assessment of other essential skills necessary for surviving in a shifting work environment include interpersonal skills, creativity, effective problem-solving to facilitate self-managed work groups, work and family integration, and cultural sensitivity (Cottrell 2015; O'Neil 2014). Such skills foster compatibility and adaptability in the work environment and are becoming increasingly important (Rossier 2015).

Tests are only one aspect of career assessment that are best used with other information about the client and environment. Testing refers to a method of acquiring a sample of behaviour under controlled conditions (Walsh and Betz 2001). Choosing the right instruments or tests is vital, and requires consideration of the purpose of the assessment, characteristics of the examinee, qualifications and training of the examiner, psychometrics of each instrument, and other relevant factors (Stasz 2001; Wood and Hays 2013). Career instruments, or tests, are also used as measurement components of research. Thus, tests play an important role in furthering both basic and applied knowledge of career development and decision-making.

Ethical Codes

Ethical codes establish the identity of a profession, socialise its members on the expectations of the profession, and help to maintain public trust (Fisher 2016; Oakland 2012). The primary intent of ethical codes is to encourage ethical thinking and decision-making, rather than rule following (Pack-Brown and Williams 2003). Some ethical codes (e.g. APA 2017) have two major purposes, reflected in ethical principles and ethical standards (Oakland). The purpose of ethical principles is to promote optimal behaviour by providing aspirational principles that encourage reflection and decision-making within a moral framework. Ethical standards refer to specific required behaviours that professionals are required to demonstrate (Oakland 2012). The purpose of ethical standards is to regulate professional behaviour through monitoring, and through disciplinary action against those who violate prescriptive and enforceable standards of conduct (Pettifor 2004). The term guidelines refers to best practice and desired behaviours, but are not likely to be enforced (Oakland 2012).

The development of universal ethical standards with universal acceptance and appeal, and sensitivity to national differences, required active and cooperative participation among national and international psychological associations and the

International Test Commission (Gauthier 2009). Movement towards universal ethical principles for psychologists was based on a common respect for humanity and for the diversity of beliefs in different cultures (Pettifor 2004). In addition, Gauthier (2004) maintained that all individuals and all nations have the right to effective protection from the misuse of psychology.

An Ad Hoc Joint Committee, including members from the International Union of Psychological Sciences (IUPsyS), International Association of Applied Psychologists (IAAP), and the International Association for Cross-Cultural Psychology, published a *Universal Declaration of Ethical Principles for Psychologists* (International Union of Psychological Sciences 2008). The rationale for developing a universal declaration was to provide a generic set of principles to develop and revise codes of ethics in psychology, and a universal standard to measure achievement and progress in psychological ethics throughout the world (Gauthier 2004, 2009; Gauthier et al. 2004). A declaration of ethical principles is not a code of ethics or a code of conduct. Instead, it reflects the principles and values expected of a code of ethics or code of conduct. The purpose of a Universal Declaration is to help ensure that psychologists act with integrity, and develop and apply psychological knowledge and skills in a manner that benefits humanity and prevents such knowledge and skills from being used to harm or oppress persons or peoples.

Consistent with its purpose, the objectives of the Universal Declaration are to provide a: (a) shared moral framework for representatives of the psychology community to speak with a collective voice on matters of ethical concern, (b) moral guideline to identify harmful aspects of societal changes and advocate for social change, (c) global consensus on the fundamental attitude toward good and evil and on basic guiding principles for decisions and actions, (d) tool to assist psychologists in ethical thinking and behaviour across professional and scientific activities, and an inspiration towards the highest ethical ideals (Gauthier 2009). The Universal Declaration includes four principles: (a) Respect for the dignity of all persons and peoples, (b) Competent caring for the well-being of persons and peoples, (c) Integrity, and (d) Professional and scientific responsibilities to society (International Union of Psychological Science 2008).

Similar to the Universal Declaration are two other documents, in the Mercosur and associated countries and the Meta-Code of Ethics. The *Ethics Framework for Professional Practice of Psychology in the Mercosur and Associated Countries* provides an ethical framework among six South American national psychological associations in 1997 (Ferrero 2012; Kuo and Leach 2017). The Meta-Code of Ethics was first developed in 1995 and modified in 2005 by the European Federation of Psychologists Association, a group of regional psychological organizations (Kuo and Leach 2017; Leach and Leong 2010). The purpose of this code is the establishment of common and unifying principles that member-nation psychological associations should consider when revising their codes.

In many countries, national professional organisations have their own code of ethics that address issues of competent assessment practice, test construction, and use (e.g., American Psychological Association – APA 1999, 2017; National Career Development Association – NCDA 2015; International Association for Vocational

and Educational Guidance – IAEVG 1995). They describe a common set of principles and standards upon which practitioners can build their professional and scientific work. These codes inform professional communities and societies about responsible assessment practices. Ethical codes typically have as their goal the welfare and protection of the individuals and groups with whom practitioners work, as well as the education of the public regarding the ethical standards of the discipline.

Ethical obligations of career assessment can be divided into the (a) responsibilities of those who construct, market, and score tests and other assessment procedures, and (b) responsibilities of professionals who use these tests and procedures with clients (Welfel 2016). Professionals who use career assessments are ultimately responsible for accurate and ethical use. They need to be aware of the costs and benefits of using career assessment, as well as their potential for misuse (Anastasi 1992; Chartrand and Walsh 2001). Topics considered in the ethics of testing include: the use of test data, qualifications of test users, test development, fairness in testing, test selection, administration, scoring, interpretation, and the communication of results.

To advocate for all people who need and want educational and vocational guidance and counselling, the ethical standards of the International Association for Vocational and Educational Guidance (IAEVG 1995) are dedicated to the enhancement of the worth, dignity, potential and uniqueness of those persons whom IAEVG members serve. Consequently, these standards are intended to guide the behaviour of IAEVG members and the creation of local and regional statements of ethical standards. The IAEVG ethical standards include Ethical Responsibilities to Clients, Attitudes to Colleagues and Professional Associates, Attitudes to Government and Other Community Agencies, Responsibilities to Research and Related Processes, and Responsibilities as an Individual Practitioner. Members of IAEVG are encouraged to provide explanations of the content, purposes, and results of tests in language that is understandable to clients by using relevant standards and through periodic training and continuing familiarity with the professional literature in selecting, administering, and interpreting assessment techniques.

The *Paris 2001 IAEVG Declaration on Educational and Vocational Guidance* (IAEVG 2001) served to urge governments or other agencies responsible for promoting human resource development to ensure the establishment and maintenance of adequate guidance services. It also declared eight features of guidance and counselling services to be essential in meeting personal, social and economic development needs and to encourage sustainable development in a knowledge-based society. They are as follows:

- Each person – regardless of gender, education, race, religion, age or occupational status – should have free and easy access to educational and vocational guidance so that their individual capabilities and skills can be identified and developed to enable them to undertake adequate education, vocational training and employment, to adapt to changing individual and social life situations and to participate fully in the social and economic life of their community.

- Special target groups, e.g. persons with disabilities and social disadvantages, should be provided with career counselling that uses appropriate methods and counselling that take into account their particular needs and communication requirement.
- Educational and vocational guidance providers should meet recognised quality standards of counsellor training and service delivery.
- Educational and vocational guidance services provided must guarantee impartiality and confidentiality and should proceed with the voluntary and active participation of their clients.
- Everyone who needs and wants educational and vocational guidance and counselling should have access to it based on need and from a competent and professionally recognised counsellor, whose profession is founded on the respect for human dignity and for different ways of living within communities.
- All educational and vocational guidance counsellors should have specified competencies and participate in continuing professional development programmes to enhance their skills and keep their professional knowledge up-to-date.
- As the training and performance of counsellors has to be supervised, the effectiveness of guidance services should be monitored through regular evaluation and relevant research studies.
- All counsellors and agencies providing educational and vocational guidance and counselling should be committed to recognised quality standards and endorse and follow a code of ethics in accordance with the 1995 IAEVG Ethical Standards.
- (IAEVG 2001, “The International Association for Educational,” para. 2).

Standards and Guidelines for Test Use

In addition to ethical codes, standards and guidelines for test use have been developed by a number of professional organizations. The *Standards for Educational and Psychological Testing* (AERA et al. 2014) govern the development and use of all career assessment instruments in the United States. The Standards are based on the premise that testing and assessment requires that testing professionals have the necessary knowledge, skill and abilities, as well as an awareness of influential personal and contextual aspects. The Standards provide criteria for the development and evaluation of tests and testing practices, as well as guidelines for assessing the validity of interpretations of test scores for their intended uses (AERA et al. 2014). Another joint committee of six U.S. professional associations, including AERA, APA, NCME, the American Counseling Association (ACA), American Speech-Hearing Association (ASHA) and the National Association of School Psychologists (NASP), published a related document entitled *Rights and Responsibilities of Test Takers: Guidelines and Responsibilities* (APA 1999). The intention of this document is to inform and educate test takers, and those involved in test development

and use, so that assessment measures are validly and appropriately utilized. Another U.S. resource for ethical practice is the *Responsibilities of Users of Standardized Tests* (RUST, 3rd edition) (Association for Assessment in Counseling 2003).

The International Test Commission (ITC) is an association of national psychological associations, test commissions, publishers, and other organisations committed to promoting effective testing and assessment policies, as well as the development, evaluation and use of educational and psychological instruments. The ITC has developed guidelines on test use, adapting tests, computer-based and Internet-delivered testing, quality control, test security, and test disposal (International Test Commission 2005b–2017). Its membership includes most of the Western and Eastern European countries and North America, as well as some countries in the Middle and Far East, South America and Africa. It is affiliated with the International Association of Applied Psychologists (IAAP) and the International Union of Psychological Science (IUPsyS). The *ITC Guidelines for Test Use* (2013) concern the competencies (i.e., knowledge, skills, abilities and other personal characteristics) required of test users. They cover responsibility for ethical test use, which includes five broad areas: (a) acting in a professional and ethical manner, (b) ensuring competent test use, (c) taking responsibility for test use, (d) ensuring that test materials are kept secure, and (e) ensuring that test results are treated confidentially, as well as good practice in the use of tests.

Research

Research that examines standards of competent practice across geographic regions and cultures, and identifies common areas of competencies, can highlight common expectations of competent psychological practice across the globe (Kuo and Leach 2017). There is a growing interest in international competencies given the worldwide increase of immigrants and refugees (Kuo and Leach). Agreement about competencies across psychological professional organizations can also help psychologists conduct their work with greater mobility.

Research comparing ethical codes across countries has revealed a number of similarities. In a study comparing the competency standards from 47 ethics codes across 51 countries, commonalities were found among 17 of the standards (Kuo and Leach 2017). Of those 17 common standards, three (i.e., Provide Services within Competency, Awareness and Action of Personal Problems, Obtain and Maintain Competency) were each found in greater than 80% of the ethics codes reviewed, one was shared by more than half, and the rest were found in one third or fewer of the codes. It has been suggested that one possible reason for the precipitous drop in commonality beyond the top three standards is that although countries may agree on the importance of competent practice, they may disagree on the professional activities that reflect competent practice (Kuo and Leach 2017).

An earlier investigation, Leach and Oakland (2007) reviewed 31 ethics codes impacting test development and use in 35 countries. Their findings indicated that codes from approximately one-third of the countries did not address test use. Among

the remaining countries, one or more test standards were typically consistent with those in the 2002 APA Code. The most frequent overlap was for standards that require psychologists to explain results, use tests properly, and limit their use by unqualified persons. Standards that discuss test construction and restrict the use of obsolete tests were rare.

A number of issues may have contributed to underestimates of the similarities across national codes, particularly in the area of assessment. Ethics codes are not likely to discuss issues relevant to test development and use in those countries where test use is not prominent. The availability and use of tests differ considerably among countries. Research suggests that test availability and use are common in Australia, Canada, Israel, New Zealand, the United States, and most Western European countries and less common in Africa, Asia, Central and South America, the Middle East, and the Russian Federation (Leach and Oakland 2007). In other countries in which ethical issues are viewed in light of overarching principles rather than specific standards, ethics codes are equally unlikely to address testing issues specifically (Leach and Oakland 2007).

Cross-Cultural Applicability and Transportability of Tests

A fundamental issue impacting ethical career assessment is cross cultural applicability and transportability (Chartrand and Walsh 2001). Assessment transportability rests on the standard of universality across values and meaning, knowing, and communication. If this standard is not met, then the test is not considered transportable across cultures. Hence, scholars provide guidelines on adapting an instrument developed in one culture for use in another (see Hambleton and Zenisky 2011). A preferable alternative is the development of an instrument by a team whose members represent the culture in which the instrument is to be used (Greenfield 1997).

Watson et al. (2005) and Leong (1996) suggested that career practitioners need to move toward relying on *cultural specificity* rather than *cultural validity*. Cultural validity refers to the extent to which career assessment instruments developed within one cultural perspective transfer or have relevance for use with other cultural groups. Cultural validity involves starting with a previously established instrument and exploring whether or not the theory on which it is based, and the constructs it measures, can be generalised across other cultures. In essence, it is an attempt to measure the goodness of fit between the instrument and the culture to which it is being applied. Cultural specificity concerns the extent to which cultural variables such as cultural identity development, worldview, language, communication style, and decision-making style influence the assessment process (Leong and Hartung 2000). Cultural specificity starts without a previously established measure, and moves forward by exploring the concepts, constructs and models specific to a particular group. This process promotes the development of culture-specific measures that are based on the values, attitudes, and belief systems of the culture within which an individual is operating.

If a decision is made to transport an instrument across cultures, the cross-cultural adequacy of this instrument must be examined. The instrument's scores must be valid and reliable within the new cultural group, and the norm group must be appropriate for the client. There are five levels of equivalence (i.e., functional, metric, measurement unit, conceptual, and linguistic) that are important to establish when comparing individuals across cultures (Lonner 1985; Van de Vijver and Tanzer 2004). *Functional equivalence* concerns the role or function that behaviour plays in different cultures. Efforts should be made to verify assumptions made about the function of behaviour within a cultural group. *Metric equivalence*, also referred to as scalar equivalence (Van de Vijver and Tanzer 2004), refers to the psychometric properties of a scale. This type of equivalence implies that a scale measures the same constructs across cultures. *Measurement unit equivalence* is when two scales have different origins but the same units of measurement, as is the case with Fahrenheit and Celsius scales. Their scores can be converted to make them comparable.

Byrne et al. (2009) point out that one should determine whether the meaning of a construct or an instrument is equivalent between groups. Many factors can contribute to differences in meaning such as societal norms, values and beliefs. Tests of measurement invariance/equivalence generally address the comparison of groups across populations. One should determine if participants in different cultures have similar or different scores on a test according to, for example, gender, age, socio-economic or other pertinent criteria. To test for measurement equivalence one generally uses a multi-group confirmatory factor analysis (For further information, consult Chen 2007; Milfont and Fischer 2010; Van de Schoot et al. 2012; Vandenberg and Lance 2000). There are various ways to analyse this of which one is to determine measured variables' similarity of intercepts and factor loadings across groups (Kang et al. 2016). *Conceptual equivalence* refers to the similarity in meaning attached to behaviours or concepts across cultures. *Linguistic equivalence* concerns the translation of an instrument and the degree to which meaning, or conceptual equivalence is maintained across translated versions.

Career assessment measures that are transported across groups also should be examined for bias. Bias refers to a response to a construct in one culture that is responded to differently in another culture due to other factors, such as social desirability. He and van de Vijver (2012) identify three types of bias, namely construct bias, method bias and item bias. Construct bias refers to constructs partially overlapping in definition between cultures. Method bias includes sample bias (i.e., samples are not sufficiently comparable), instrument bias (i.e., instrument characteristics may differ between cultures, such as lack of familiarity with computer testing or with Likert-type scales), response styles (e.g., participants may be more likely to acquiesce in one culture than in another), and administration bias (e.g., ambiguous instructions or different conditions of test administration). Item bias means that if participants have similar characteristics, those from different cultures do not endorse items equally. This could be due to various factors, such as problematic test translation or items not being applicable to some respondents.

Translation Guidelines

Researchers commonly translate and adapt tests for use in different cultures and countries where the original test was constructed. One essential resource for translation and adaptation techniques is the International Test Commission (2017) guidelines. These guidelines include (a) Pre-conditions before the test is altered or adapted (e.g., obtaining permission to translate the test, and adhering to copyright law concerning the test), (b) Test Development (e.g., the process of adapting the test), (c) Confirmation (e.g., the data analyses processes that provide psychometric evidence of the equivalence of the adapted test to the original), (d) Administration, (e) Score Scales and Interpretation, and (f) Documentation of the process.

Hambleton and Zenisky (2011) provide a 25-item Item Translation and Adaptation Review Form to standardise the process of translating and adapting tests. Readers are asked whether they have addressed translation issues, such as whether the original and adapted tests have: similar meaning; words with comparable meaning and degree of difficulty; item changes that could influence item difficulty, similarity of metaphor, idiom, or colloquial usage; and similar item forms.

Ethical Issues in Telepsychology and Computer and Internet-Based Assessment

Telepsychology refers to distance telecommunication psychological service provision and is garnering professional and research consideration (Johnson 2014). Telecommunication refers to technologies such as the Internet, e-mail, cell-phones, text messaging, Twitter, Facebook, and video conferencing, such as Skype. Computer and Internet-based career assessment is an established feature of career assessment in many countries.

Telepsychology

The Joint Task Force for the Development of Telepsychology Guidelines for Psychologists (2013) provided recommendations that included assessment using telecommunication. The Joint Task Force urged psychologists to consider the unique legal and ethical assessment issues that arise when providing telepsychology services. Should a psychologist test a client in another country, then the psychologist needs to be knowledgeable of the applicable laws and ethical guidelines in that country. Johnson (2014), in proposing a telepsychology framework for Canadian psychologists argues that interjurisdictional practice is an ill-defined legal area, adding that psychologists need to be conversant with psychology rules in a client's jurisdiction.

Many assessment procedures were constructed for face-to-face usage, so psychologists need to be knowledgeable of whether the administration and psychometric properties of tests are maintained in different communication environments or whether test norms have been developed for use in a telepsychological environment. For example, clients may complete a test in a noisy environment or receive help from friends or the Internet, which may compromise the tests' results. Ensuring a proper testing environment presents an additional challenge to practitioners. The validity of Internet test data can be compromised by an uncontrolled testing environment, such as a home or Internet café, or the presence of loud noise or poor lighting. It also is important that the test taker understands how to operate computer equipment and navigate the software program. Amir et al. (2008) stated that it is important to determine the client's response credibility, such as by ascertaining the length of time it took to complete the measure and examining the validity of the items.

Computer and Internet-Based Assessment

Glavin and Savickas (2010) urge career counsellors to utilize computerized assessments in the services that they provide. Such assessment tools also need to be developed and evaluated in a computerized assessment environment (Gati and Asulin-Peretz 2011). Practitioners should not assume that the validity and reliability of paper and pencil measures transfer to the computer-based version of the tests. Practitioners using computer-based assessments are ethically bound to be competent in the procedures, scoring, interpretation, and psychometric strengths and weaknesses of computer and Internet-based assessment (Sampson et al. 2003; Schulenberg and Yutzenka 2004). It is the ethical responsibility of the practitioner to evaluate computer and Internet-based career assessment instruments before using them.

Although psychometrically acceptable measures are available on the Internet, there also is a proliferation of unstandardised checklists and measures with little supporting psychometric data (Butcher 2003). As Chartrand and Walsh (2001) suggested, some websites can be very attractive and easily mislead and confuse consumers. Therefore, practitioners are ethically obliged to educate the public about the appropriate use of testing and assessment on the Internet. The benefits of computer and Internet-based career assessment include access to large databases, rapid data organisation, substantial data storage facilities, multiple variable processing, increased consistency and reliability of data interpretation, rapid production of data-based narrative reports, and convenience (Barak 2003; Sampson et al. 2003). Such potential benefits to practitioners and clients must be considered simultaneously with ethical concerns.

According to Naglieri et al. (2004) there should be an opening statement on the test Internet site clarifying the limitations of the professional relationship with potential clients via the relatively impersonal Internet medium. Given evidence to

suggest that the counselling relationship is an essential factor in outcome research (Norcross and Wampold 2011), practitioners are encouraged to consider the limits of this relationship when interactions and communication with clients are solely Internet-based. Efforts should be made by practitioners to gather information, communicate interest and concern, and offer support to clients through written communication.

Informed consent needs to be given special ethical consideration in Internet-based assessment, as it is possible that clients could misrepresent their age and/or identity. Given that the assessment of children and adolescents typically requires the informed consent of a parent or guardian, this can be a complicated issue at best. It may be difficult for the practitioner to accurately determine the age of the client, who is providing informed consent, and whether that person is authorised to do so (Naglieri et al. 2004). In addition, the practitioner should be aware of the possibility that the person completing the test may live in another country, and be in a culture different from those people represented in the norm group. Relatedly, it may be difficult to confirm that the test taker is completing the test in his or her native language (Naglieri et al. 2004). None of these issues is easy to resolve.

The purpose of the International Test Commission (ITC 2005a) guidelines on computer-based and Internet-delivered testing is to raise awareness and promote good practice. This includes the development, distribution, use, and completion of assessments. The intention is for local guidelines to be examined with the ITC guidelines so that common and consistent benchmark standards can be developed. Four main guidelines are provided and divided into 54 sub-guidelines specifically for test developers, test publishers and test users. The four main guidelines are (1) Give due regard to technological issues in computer-based and Internet-delivered testing. For example, technical features of a test should be adjusted for people with disabilities, (2) Attend to quality issues. For example, psychometric evidence of the measures in computer and Internet environments and equivalence between paper-and-pencil and Internet test versions should be documented. Language and images should be culturally appropriate for intended respondents, (3) Provide appropriate levels of control. For example, testing conditions are to be documented for each measure and test takers should be authenticated so as to minimize cheating, and (4) Maintain the confidentiality of test-taker results. For example, tests should not be able to be illegally hacked or copied, and test data are to be encrypted.

Privacy and Confidentiality Of particular concern in telepsychology assessment is that client privacy and confidentiality be maintained, given the risks of security breaches in all forms of telecommunication. For example, Gamble et al. (2015) state that merely 3.8% of Internet usage is encrypted in North America. Storage of assessment data includes among others, hard drives, flash drives, and cloud storage, of which the latter includes object storage services (e.g., Dropbox, Google Drive, and iDrive), Facebook, Twitter, and Gmail. These data storage devices are also of concern due to data breach risks. Object storage services may store assessment data in a country in which the psychologist does not reside, making it difficult to determine if adequate security precautions are in place.

There are three primary ways to ensure confidentiality when distributing assessment information on the Internet: (a) Encryption Technology, which provides confidentiality and ensures that the data are sent and received by the appropriate persons, making the data unreadable without a special program to decode the data, (b) Message Digests, which are like fingerprints and ensure that information is not changed by unauthorised persons, and (c) Digital Signatures, which can determine where the information originated and can authenticate who sent the data. By using these technologies, data security is increased considerably. The New Zealand Psychologists Board (2012) states that testing should not occur where the security of the test is questionable. They add that should a test not be copyrighted in electronic form, then it should not be used, unless permission is obtained from the test publishers.

Feedback and Assessment Psychologists have an ethical responsibility to provide clients with feedback regarding the results of testing and assessment. Interpretive reports are frequently computer generated for computer and Internet-based assessments. Despite their ease of use, these reports have the potential to be misused (Schulenberg and Yutrzenka 2004). The effortlessness with which such narrative reports can be generated makes it easy for practitioners to rely on them without using additional data or examining these reports for accuracy and inclusiveness. To provide accurate assessment feedback, one first needs to clarify under what conditions the test took place and whether the appropriate person completed the test. Second, it is important to know a person's emotional state before providing feedback, as negative information could make some people highly distressed. Third, some clients may need emotional support after receiving test results. It is difficult to provide support to those clients who need it, if feedback is not provided in person. Some suggest that psychologists refrain from providing assessment feedback over the Internet (Naglieri et al. 2004). Therefore, some practitioners require a face-to-face meeting to discuss the results. In addition, it is important to consider assessment as a part of the career counselling process in which assessment is frequently a catalyst for self and environmental exploration. This may be challenging to accomplish over the internet, given client attrition once assessment results are received.

Test Publishers and Authors Test publishers and authors have an ethical responsibility to prevent their computer and Internet-based tests from being copied and distributed by unauthorised persons. Thus, steps should be taken to prevent people from copying them and placing them on the Internet for public use. In doing so, test publishers and authors protect the public from unqualified persons using or corrupting the tests. Finally, practitioners are urged to determine the legal issues associated with providing services to clients in other states, provinces, or countries. Therefore, practitioners are encouraged to determine if they are required to have licences to provide Internet-based assessment and test interpretation services in geographical locations other than their own (Naglieri et al. 2004).

Culturally Competent Career Assessment Practice

Career practitioners need to understand and work with clients from the client's cultural perspective and cultural context, hence, competent career assessment practice is closely linked to multicultural competence (Vespia et al. 2010). Culturally appropriate career assessment integrates culturally relevant information about the client, attempts to understand the client in his or her cultural, personal, and career contextual realities, and considers the limitations of traditional assessments and assessment tools (Flores et al. 2003; Fouad 1993).

Culturally competent assessment includes: culture-specific styles of service delivery, use of the client's first language, evaluation of cultural orientation prior to test administration, and appropriate assessment methodology and tests – including modification of tests by translation and the development of new norms. Cultural orientation information is needed prior to assessment to determine the extent to which the assessment technology and style of service delivery is applicable to a particular client. Cultural orientation provides a categorisation of several major outcomes of acculturation as a means of describing differences within cultural groups. This cultural information informs the selection of standard tests or culture specific tests and methods for subsequent assessment (Dana 1996). Matsumoto and Wang (2013) provide a review of ten tests of cross-cultural competence.

Ethical Issues with Specific Populations

Tests are contextually embedded and thus are designed for certain groups of people at a certain time. Test scores are not necessarily universally valid or reliable. Thus, it is important for the counsellor to determine the extent to which tests and assessments can be used with diverse groups of individuals. Many of the issues associated with ethical practice concern multicultural competence. Multicultural career assessment is concerned with the selection, administration and interpretation of career instruments with individuals from under-represented groups (e.g., racial/ethnic minority groups, gender and sexual minorities, etc.). Instrument selection concerns assessing the degree to which the measured construct has the same meaning across diverse groups (Flores and Heppner 2002). When interpreting the meaning of assessment results, it is essential to consider the environmental context. Knowledge, awareness and skills related to cultural competence is central to ensuring culturally appropriate consideration of assessment instruments, culturally sensitive administration and culturally appropriate interpretation of data (Flores et al. 2003). (Refer to Ponterotto et al. (2010) for more information on the advances in multicultural assessment.) .

Children and Adolescents

When assessing children and adolescents, the parent or guardian should be informed and provide the consent before any assessment and testing occurs. Minors are also requested to provide *assent* (Fisher 2016). Both parents and children will learn (a) the reasons for assessment, (b) the assessment process, (c) which tests will be administered, (d) how the information will be used (e) who will have access to the results, and (f) the implications of the results (Jacob and Hartshorne 2003). Even though testing that is part of a school's regular program generally does not require parental approval, parents should be informed when such testing will be provided (Knauss 2001). An important ethical challenge in the school environment is determining who the client is: the child, the parent, or the school system. However, when thinking in a careful and nuanced manner about ethical obligations, the client might be multiple parties in almost every case (Fisher 2016). Being able to identify all involved parties is important and ethical because it affects the informed-consent rights of everyone involved. School psychologists might interact with multiple non-client parties, such as other professionals and school personnel. This raises possible confidentiality concerns in the school system, regarding who should have access to assessment reports.

The Principles for Professional Ethics published by National Association of School Psychologists (NASP) in 2010 urged practitioners to be responsible in providing assessments. Not only the practitioners themselves, but also the chosen tests should not be biased or discriminate in terms of race, ethnicity, or gender. In addition, satisfactory reliability and validity of the assessments should be considered; that is, practitioners should ensure that appropriate test norms are used when comparing the children's performance. Practitioners should demonstrate adequate ability and knowledge in chosen tests, including the limitations, appropriate use, administration settings, and scoring, otherwise tests and assessments could potentially be used in a harmful way. When writing the assessment report, the practitioner is encouraged to refrain from using technical language and provide a report that is easy to understand and includes recommendations for practice, in addition to test scores (Jacob and Hartshorne 2003).

Conclusion

Career assessment and testing are important for acquiring information about the client, counselling, and interventions. However, it has the potential to be misused and has numerous risks. If practitioners are not knowledgeable about particular tests and their limitations, the interpretation of test scores could potentially be inappropriate and harmful to clients. Thus, it is essential to have ethical codes to address these issues, to provide accountability, and to protect the public against the misuse

of tests and assessment. There are many global, national, and organisational ethical codes referring to career assessment and testing. Ethical codes are not merely about adherence to rules, but about providing ethical thinking when testing and assessing clients so that appropriate decisions can be made within ethical guidelines. It is important for psychologists to be conversant with ethical issues concerning the cross-cultural applicability of tests, culturally competent career assessment, computer and Internet-based career assessment, and career assessment with special populations (e.g., women; lesbian, gay, and bisexual persons; and children and adolescents). Career assessment and testing is constantly changing, necessitating psychologists to be aware of the ethical applications of these tools to diverse populations in diverse contexts.

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Chapter 36

Person-Centred Research in Vocational Psychology: An Overview and Illustration



Harsha N. Perera , Danette Barber, and Peter McIlveen

Abstract This chapter provides an introduction to person-centred research approaches in vocational psychology with a specific focus on modern latent variable mixture approaches to examining unobserved population heterogeneity. First, we provide a general overview of the concept of unobserved population heterogeneity as a crucial assumption that underlies person-centred analytic approaches and discuss the way in which latent variable mixture models overcome the limitations of traditional person-centred analytic techniques. We then discuss the utility of person-centred strategies in vocational psychology research via the consideration of empirical applications of mixture analyses. Next, we provide an introduction to one of the more widely-used person-centred approaches—Latent Profile Analysis (LPA)—in vocational psychology, drawing comparisons of these approaches with more traditional person-centred analytic techniques as well as the common factor model. We demonstrate the LPA procedure using data on the RIASEC vocational interests, and briefly consider implications of the LPA model for practice. It is our hope that this non-technical introduction to person-centred approaches will foster further interest in applying these methods to test crucial assumptions of homogeneity and heterogeneity in sample data typically used in vocational psychology research and practice.

Keywords Latent variable mixture models · Mixture models · Latent profile analysis · Person-centred · Vocational interests · Interest profiles · Heterogeneity

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Among vocational psychology researchers, there is a burgeoning interest in person-centred¹ perspectives on classical vocational theories and constructs and concomitant mixture modeling techniques that enable researchers to model population heterogeneity. This interest spans several constructs, including work self-efficacy (Barbaranelli et al. 2018), vocational interests (McLarnon et al. 2015; Leuty et al. 2016; Perera and McIlveen 2018), career adaptivity (Perera and McIlveen 2017) and adaptability (Hirschi and Valero 2015), work motivation (Howard et al. 2016; Valero and Hirschi 2016), goal orientation (Kunst et al. 2018), organisational commitment (Meyer et al. 2015), *inter alia*. This emerging interest is attributable to at least two sources. First, researchers in vocational psychology have increasingly recognised that individuals sampled from the population are unlikely to be homogeneous with respect to estimates of parameters (e.g., means, regression coefficients) based on relevant data, such as vocational interest data (Perera and McIlveen 2018). Instead, the data may reflect latent subgroups characterised by unique patterns or combinations of constructs (e.g., vocational interests) with subgroup specific estimates of parameters. The detection of this heterogeneity requires the use of person-centred analytic approaches. A second reason for the growing interest is advances in user-friendly statistical software programs (e.g., Mplus, Latent Gold, SAS), which have made mixture analyses much more accessible to researchers with diverse training backgrounds. Given the increased focus on population heterogeneity in vocational psychology research, it appears timely to provide an introduction to mixture models for heterogeneous data in the service of encouraging researchers in vocational psychology to adopt these techniques to examine increasingly complex theories.

Accordingly, this chapter introduces person-centred research approaches in vocational psychology. We focus, specifically, on the latent profile analysis (LPA) approach examining unobserved population heterogeneity. First, we provide a general overview of the concept of unobserved population heterogeneity as a crucial assumption that underlies person-centred analytic approaches and discuss the way in which latent variable mixture models overcome the limitations of traditional person-centred analytic techniques. We then discuss the utility of person-centred strategies in vocational psychology research, introduce one of the more widely-used person-centred approaches—LPA—in vocational psychology, and illustrate the LPA procedure using data on the RIASEC model of vocational interests. Finally, we consider implications of the LPA model for practice.

¹The term “person-centred” does not refer to the humanistic school of person-centred counselling (e.g., Rogers 1957).

Unobserved Population Heterogeneity and Mixture Models

Mixture models have substantial utility in vocational psychology and cognate fields as the populations investigated in these fields are oftentimes heterogeneous with respect to data on dispositional traits and interests, *inter alia* (McLarnon et al. 2015; Perera et al. 2018a; Perera and McIlveen 2017, 2018). Population heterogeneity may be observed or unobserved. Observed heterogeneity occurs when subpopulations present in data can be defined in terms of observed variables. For example, there is observed heterogeneity in Realistic vocational interests attributable to the observed variable gender (Su et al. 2009). Typically, males show greater levels of interest in stereotypical Realistic interests (e.g., mechanics). Based on gender, both male and female subpopulations can be defined. Similarly, individuals may respond differently to an educational or career intervention. This heterogeneity in treatment response may be attributable to observed factors, such as age or gender. When heterogeneity is observed, subpopulations are known as *groups*, and group membership is known *a priori* for each participant in the sample (e.g., Males are coded as 0 and females as 1 in a dataset) (Lubke and Muthén 2005). Traditional multiple-group analytic techniques can be used to compare the observed groups on relevant outcomes (e.g., ANOVA, MANOVA, multiple-group structural equation models), and latent variable frameworks allow for establishing requisite levels of invariance prior to comparisons (Meredith 1993; Millsap and Yun-Tein 2004; Perera et al. 2015)

Heterogeneity may also be unobserved. Unobserved population heterogeneity occurs when the variables that cause the heterogeneity in the data are not observed *a priori*. Where unobserved heterogeneity is present, subpopulations are known as *latent classes* or *profiles* to the extent that membership of the subpopulations is latent (i.e., unobserved) and must be inferred from the data (Lubke and Muthén 2005). Here, it is not possible to group participants according to some identifiable or observed characteristic of the sample (e.g., gender). For instance, vocational interest data on school students may reflect three distinct types of students as follows: (a) those who are high on Conventional interests but lower on all other interests; (b) those who are high on Realistic, Investigative, and Conventional interests, but low on Artistic, Social, and Enterprising interests; and (c) those who are uniformly low on all interests. Researchers may be interested in determining the existence of these latent subgroups or profiles of interests because of their potentially different relations with other variables (e.g., STEM choice outcomes). Practitioners may be most interested in identifying which subgroup a particular client is most likely to be a member. Mixture models provide a flexible analytic framework to represent unobserved heterogeneity via a finite number of latent classes or profiles that can be conceptualized and labelled for research or practical purposes.

Mixture models are a general category of statistical models for modeling unobserved heterogeneity in cross-sectional or longitudinal data. This category of statistical models includes LPA, latent class analysis (LCA), latent transition analysis (LTA), mixture regression analysis (MRA), and growth mixture analysis (GMA). Although these models are distinct and serve to answer distinct research questions, they operate under a common assumption that a population includes a mixture of subpopulations that can be modeled as distinct classes or profiles. Stated another way, heterogeneity with respect to a set of observed variables emerges from the presence of multiple unique profiles or latent subgroups of individuals (Maysn 2013). In mixture analyses, these profiles are represented by a latent categorical variable, with the categories of this unobserved variable reflecting subpopulations inferred from the data (Morin 2016). This assumption of heterogeneity stands in contrast to the assumptions made by more familiar, and widely used, variable-centred methods, the most general of which is the structural equation modeling (SEM) framework. Traditionally, models in the SEM framework assume that individuals constituting a sample are drawn from a single, homogenous population, and, as such, individuals are homogenous with respect to estimates of parameters. If this homogeneity assumption is tenable, a single set of “averaged” parameters obtained from these models will be externally valid; however, if homogeneity does not hold, these averaged parameters may not be applicable to any one individual in the sample (Wang and Peck 2013).

Although person-centred and variable-centred approaches have, traditionally, been cast as divergent approaches to statistical modeling, under the generalised SEM (GSEM) framework (Muthén 2002), these approaches are considered as complementary (Morin et al. 2017). Indeed, the GSEM relaxes the assumption in SEM that all individuals constituting a sample are from a single population. In doing so, the GSEM framework allows for the modeling of finite mixtures of distributions to model such heterogeneous data via the identification of distinct profiles of participants. As noted by Morin (2016), the profiles obtained from these person-centred approaches possess three important properties as follows: (a) they are typological in that they serve a classification function, fostering the categorisation of individuals into distinct subpopulations; (b) they are exploratory to the extent that subpopulation membership is not known *a priori* and must be inferred from the data, often via the comparison of a series of models specifying a different number of profiles (cf. Finch and Bronk 2011; Perera and McIlveen 2017); and (c) they are prototypical insofar as each participant has a probability of membership in a profile based on the extent of similarity with each prototypical latent subgroup.

Mixture models offer several important advantages over traditional approaches to clustering, such as *K*-means cluster analysis (Magidson and Vermunt 2002). First, cluster analyses assumes class-invariant variances of the indicators of the latent categorical variable (Peugh and Fan 2013; Vermunt 2011) whereas mixture models allow for residual variances to differ across indicators and/or profiles. Second, cluster analyses assume conditional independence; that is, indicators are assumed to be uncorrelated after partialling out the latent categorical variable. Mixture models relax this conditional independence assumption by allowing residuals to be corre-

lated (Morin 2016). Third, traditional clustering procedures, such as k-means clustering, assume the exact assignment of each individual in a profile (i.e., a so-called “hard partitioning”), though fuzzy clustering methods allow for greater flexibility but are not widely used in the social and behavioral sciences (Xu & Wunsch, 2005). Contrariwise, mixture models yield probabilistic assignment and directly model classification uncertainty. As Vermunt (2011) noted, classification error is a way to “account for the fact that we are usually not fully certain about a subject’s cluster membership” (p. 84).

At least another two limitations of cluster analyses limit their utility. Cluster analyses are generally limited to classification alone whereas the mixture analysis framework allows for the inclusion of predictors and outcomes of profile membership (Morin 2016). Although strategies exist for examining predictors and outcomes of cluster membership derived from cluster analyses, often these rely on multi-step approaches in which, typically, individuals are assigned to a group in a first step and, in subsequent steps, predictors and outcomes of group membership are examined using conventional analytic techniques (e.g., multinomial logistic regression, ANOVA, MANOVA). These methods have largely fallen out of favour with methodologists, not least because of their inability to account for classification uncertainty in initial group assignment. Finally, mixture models provide much more rigorous procedures for class enumeration based on comparing alternative solutions with different numbers of profiles (Lubke and Muthen 2005). Model comparisons are fostered by the availability of several information criteria as well as likelihood ratio test approximations (Lo et al. 2001; McLachlan and Peel 2000). Cluster analyses, however, rely on arbitrary criteria for cluster enumeration, such as the trace(W) minimization criterion (Everitt et al. 2011), which aims to minimise the within-cluster sums of squares across p clustering variables. Given these limitations of cluster analyses, and simulation research showing that probabilistic mixture models are superior to traditional clustering approaching in the identification of latent subgroups (McLachlan and Peel 2000), researchers have increasingly turned to mixture models.

The Use of Person-Centred Strategies in Vocational Psychology

Person centred approaches, such as LPA, have been used in recent studies examining vocational behaviour. For example, self-determination theory has been used to develop person-centred profiles of work motivation using latent profile analysis (Graves et al. 2015; Howard et al. 2016; Valero and Hirschi 2016). Using either four (Graves et al. 2015; Valero and Hirschi 2016) or six (Howard et al. 2016) motivation constructs, based on extrinsic, introjected, identified, and intrinsic work motivation, four (Howard et al. 2016), five (Valero and Hirschi 2016), or six (Graves et al. 2015) profiles of work motivation were identified. Howard et al. (2016) found

differences in outcomes of extra- and in-role performance, job satisfaction, engagement, and burnout among the four work motivation profiles of amotivated, moderately autonomous, high motivated, and balanced workers. Valero and Hirschi (2016) found differences in person-job fit, work engagement, and job satisfaction among the work motivation profiles of low positive affect, unmotivated, moderately motivated, moderately motivated, and motivated individuals. Finally, Graves et al. (2015) found differences in job satisfaction and affective commitment among the six work motivation profiles of very low internal, low internal, moderately low internal, moderately high, high internal, and self-determined.

Latent profile analysis has also been used to study vocational interest profiles using RIASEC variables (McLarnon et al. 2015; Perera and McIlveen 2018). McLarnon et al. (2015) identified eight vocational interest profiles, namely realistic-artistic-conventional, investigative-dominant, conventional business, entrepreneur, disinterested, realistic-investigative-artistic, neutral, and artistic-dominant. Examining differences in the five-factor model of personality traits among vocational interest profiles, investigative-dominant was lower in extraversion than conventional business, entrepreneur, disinterested, realistic-investigative-artistic, and neutral, and lower than conventional business in openness to experience, which was also lower than conventional business for entrepreneur and disinterested. Investigative-dominant was higher in Machiavellianism than neutral and, along with disinterested and realistic-investigative-dominant, lower in narcissism than entrepreneur. Perera and McIlveen (2018) also used RIASEC variables to identify vocational interest profiles, finding six profiles: social-dominant, disinterested, high realistic-dominant, investigative-dominant, ambivalent, and conventional-dominant. The probability of choosing a STEM major among the profiles was higher for conventional-dominant than other profiles, and lower for weak-social dominant.

In the frame of career construction theory (CCT) (Savickas 2005), latent profile analysis has been used to identify career adaptability and adaptivity profiles (Hirschi and Valero 2015; Perera and McIlveen 2017). Across two samples, Hirschi and Valero (2015) used the career adaptability subscales of concern, control, curiosity, and confidence and identified five profiles of career adaptability in each sample. Although each sample resulted in different profiles, they shared some similar characteristics. The low and very low profiles were lowest in each sample on concern, control, curiosity, and confidence. Below average and low were second lowest on all four subscales, and high (named the same for both) were characterised by the highest scores on the four subscales. Similarly, average and above average were above the mean for the four career adaptability subscales, but lower than the high profiles. Finally, the first sample had a helpless-passive profile which was characterised by concern slightly above the mean but control, curiosity, and confidence below the mean. In the second sample, below average was below the mean on all four subscales, but closer to the mean than low and very low. In both samples, these profiles differed from one another on career planning, career decision-making difficulties, career exploration, and occupational self-efficacy. Perera and McIlveen (2017) investigated career adaptivity profiles estimated from the dimensions of the five-factor model of personality in two studies. Three profiles of career adaptivity were

identified in both studies. The “adaptive ready” profile was characterised by neuroticism scores below the mean and by agreeableness, conscientiousness, extraversion, and openness to experience scores above the mean. The “ordinary” profile was characterised by the five factors close to the mean; and the “rigid” profile was characterised by neuroticism scores higher than the mean and by agreeableness, conscientiousness, extraversion, and openness to experience scores below the mean. The adaptivity profiles differed with respect to indices of adaptability, adapting, and adaptation in line with the CCT. This work constituted the first evidence that career adaptivity can be sufficiently represented by trait interactions operationalised as qualitatively and quantitatively distinct profiles.

Latent Profile Analysis: Explication and Application

Explication

LPA is a special case of the more general category of finite mixture models, and is one of the most widely used probabilistic analytic approaches for modeling population heterogeneity in cross-sectional data. The aim of LPA is to model heterogeneity in cross-sectional data by grouping individuals on the basis of individual responses to a set of continuous manifest variables (Peugh and Fan 2013). Individuals who share the same profile are similar to one another to the extent that their observed response patterns are assumed to emerge from the same probability distribution. Although not widely recognised in applied research, the LPA model shares much in common with the confirmatory factor analysis (CFA) model (Molenaar and von Eye 1994). Specifically, in terms of the first and second-order moments of a sample distribution, and assuming local independence, the model-implied mean vector and covariance matrix of a CFA model specifying k factors can be reproduced with a $k + 1$ LPA model (Peugh and Fan 2013). Likewise, a k -profile LPA model has the same variance-covariance implications as a $k - 1$ factor CFA model. As Morin (2016) noted, choosing between these models is not straightforward and the specification of a k -profile LPA over a $k - 1$ factor CFA should be based on theoretical grounds.

The LPA model seeks to decompose the variance of the i^{th} manifest indicator in the k^{th} ($k = 1, 2, \dots, k$) latent profile into between-profile and within-profile components by

$$\sigma_i^2 = \sum_K^{k=1} \pi_k (\mu_{ik} - \mu_i)^2 + \sum_K^{k=1} \pi_k \sigma_{ik}^2 \quad (36.1)$$

where μ_{ik} is the (k) profile-specific mean of the i^{th} manifest indicator, σ_{ik}^2 is the (k) profile-specific variance of the i^{th} indicator, and π_k represents profile density, reflecting the proportion of individuals in each profile or profile density. Equation 36.1 shows that the LPA model expresses the profile-specific means and variances of the manifest variables as a function of profile-specific density.

In typical LPA model specifications, two restrictions are imposed on the LPA model to reduce model complexity (Vermunt and Magidson 2002). The first restriction concerns the local independence or conditional independence assumption; that is, after accounting for the latent categorical variable, representing latent profile membership, the manifest indicators are assumed to be independent within profiles (i.e., their covariances are restricted to zero yielding diagonal class-specific covariance matrices). This local independence assumption is comparable to the conditional independence assumption in traditional common factor models. This assumption can be relaxed via the specification of correlated uniquenesses and can be useful in identifying the correct number of profiles (Peugh and Fan 2013; Vermunt and Magidson 2002), but there should be a strong *a priori* rationale for the inclusion of these local dependencies (Morin 2016). The second restriction is the imposition of the constraint of homogeneity of variances across the latent profiles ($\Sigma_k = \Sigma$). The net effect of these constraints is that the profile-specific covariance matrices are diagonal and homogeneous, having the same form of distribution, and the profiles differ only with respect to their means (Peugh and Fan 2013). These restrictions greatly reduce the complexity of the model and the computational burden of parameter estimation. Under conditions of homogeneity and local independence, Eq. 36.1 is reduced to the following (Vermunt and Magidson 2002):

$$f(\mathbf{y}_i | \theta) = \sum_K^{k=1} \pi_k f_k(\mathbf{y}_i | \theta_k) \quad (36.2)$$

where \mathbf{y}_i is an individual's scores on a set of manifest indicators, K is the number of profiles, and π_k is the profile density (i.e., the size of profile k). Equation 36.2 shows that the LPA models expresses the distribution of \mathbf{y}_i given the model parameters in θ as a function of the probability of being a member of a specific latent class (π_k) and a mixture of profile-specific densities, $f_k(\mathbf{y}_i | \theta_k)$ (Tein et al. 2013).

Applied Example

Methods

This application of LPA relies on data collected from an open-source interactive version of the public-domain RIASEC markers. Data were available for 2128 individuals. The mean age of participants was 32.102 ($SD = 13.006$), and 50.3% ($n = 1061$) of the sample was female. Twenty-one (1.0%) individuals did not report their age, and 24 (1.1%) individuals either did not report their sex or selected "other".

For the present demonstration, the RIASEC interests were assessed using an interactive version of the activity-based Alternative Forms Public Domain RIASEC Marker Scales (Armstrong et al. 2008) that comprises 48 items. Each RIASEC dimension is indexed by eight items, which are rated on a five-point Likert-type scale, ranging from 1 (*Dislike*) to 5 (*Like*), based on the extent to which participants enjoy performing the work activity. Responses obtained from the measure have been shown to be internally consistent, structurally valid, and possess convergent validity (Armstrong et al. 2008; Perera and McIlveen 2018). Coefficient alpha reliabilities were uniformly acceptable in the present sample for the Realistic ($\alpha = .811$), Investigative ($\alpha = .795$), Artistic ($\alpha = .762$), Social ($\alpha = .774$), Enterprising ($\alpha = .775$), and Conventional ($\alpha = .828$) scale scores.

The statistical analyses were conducted in two phases. First, preliminary confirmatory factor analyses (CFA) of the data were performed to obtain factor scores on the RIASEC dimensions to serve as mixture (i.e., LPA) manifest indicators. We prefer factor score indicators over typical non-refined scale scores because they (a) give greater weight to more reliable items (i.e., providing partial control for measurement error) and (b) can accommodate construct-relevant multidimensionality due to item fallibility via the specification of cross-loadings in the measurement structure from which the factor scores are obtained (Morin et al. 2016; Perera and McIlveen 2017, 2018; Perera et al. 2018b).

For the CFA model, each RIASEC manifest indicator was specified to load onto one of the six interest dimensions per the scoring key. In addition, four items were specified to have cross-loadings on the Realistic, Artistic, and Conventional factors to control for construct-relevant multidimensionality due to item fallibility per Perera and McIlveen (2018).² Consistent with the assumed circumplex structure, correlations among the factors were restricted to be equal within each of the adjacent, distal, and opposite interest domains as this more restrictive structure has been shown to provide a better representation of the RIASEC data than models in which covariances are freely estimated (Iliescu et al. 2013; Perera and McIlveen 2018).

Analyses of the measurement model were conducted using Mplus 7.4. Solutions were estimated using weighted least squares with diagonal weight matrices for the estimation of parameters and full weight matrix for the standard errors and mean-and-variance-adjusted chi-square tests statistic. In Mplus, this estimation routine is operationalised as the Weighted Least Squares Mean-and-Variance adjusted (WLSMV) estimator. Fit assessment was inclusive and involved an evaluation of fit indices, parameter estimates, and alternative models. As the χ^2 can be oversensitive to minor model misspecifications given even moderate-sized samples and contains

²Investigative Interest Item 8 (“Make a map of the bottom of the ocean”) was specified to cross-load onto Realistic interests. Social Interest Item 4 (“Teach an individual an exercise routine”) and Enterprising Interest Item 4 (“Operate a beauty salon or barber shop”) were specified to cross-load onto Artistic interest. Finally, Enterprising Interest Item 5 (“Manage a department within a large company”) was specified to load onto Conventional interests. See Perera and McIlveen (2018) for a detailed rationale for the specification of these cross-loadings.

a restrictive hypothesis test (i.e., exact fit), three approximate fit indices were considered: RMSEA, $< .050$ and $.080$ for close and reasonable fit; Comparative fit index (CFI) and Tucker-Lewis Index (TLI), $> .900$ and $.950$ for acceptable and excellent fit, respectively (Marsh et al. 2004).

The second phase of the analyses involved LPA with factor score indicators obtained from the measurement model retained in Phase 1. We estimated models including one to nine profiles based on previous evidence suggesting the existence of between six and eight profiles with vocational interest data (McLarnon et al. 2015; Perera and McIlveen 2018). Across the models, means of the profile indicators were freely estimated, but indicator variances were constrained to equality across the profiles in line with the homogeneity assumption of the classical LPA model (Lubke and Neale 2006). We also estimated alternative models specifying freely estimated indicator variances; however, these models tended to converge on inadmissible solutions or failed to converge, especially with increasing k , which is indicative of over-parameterisation of the models (Bauer and Curran 2003).

The LPA analyses were performed using robust maximum likelihood estimation, operationalised as the MLR estimator, in Mplus 7.4 (Muthén and Muthén 1998–2015). The models were estimated using 5000 random sets of start values with 500 iterations each and the 200 best solutions retained for final stage optimization. An inclusive approach to model selection was used, involving an evaluation of the theoretical consistency of the solutions, the information criteria, the Bootstrap Likelihood Ratio Test (BLRT), and the statistical admissibility of the solutions (e.g., no negative variance estimates) (Henson et al. 2007; Morin and Wang 2016; Nylund et al. 2007). Specifically, the Bayesian Information Criterion (BIC), the sample-adjusted BIC (Sa-BIC), and the consistent Akaike Information Criterion (CAIC) were used with lower values on the criteria indicative of a better-fitting model (Henson et al. 2007). The Akaike Information Criteria (AIC) is also reported for informational purposes, but we did not rely on this index for model selection as the AIC tends to favour more complex models (West et al. 2012). Although the BIC, SaBIC, and CAIC are useful for deciding on the optimal number of profiles, in larger samples, such as in the present demonstration, these criteria can continue to decrease with the addition of profiles (Morin et al. 2016). In this case, classical “elbow plots” of the information criteria can be useful in detecting the point at which the criteria plateau. The BLRT provides a test of a k -profile model against a $k - 1$ profile model where k is the number of profiles. A non-significant p -value for the BLRT indicates that a more parsimonious $k - 1$ profile model should be retained. We also report the entropy for the models, which indexes the average classification accuracy in the assignment of participants to profiles, with higher values indicative of greater classification accuracy. However, we note that entropy, in isolation, should not be used for class enumeration and model selection (Lubke and Muthén 2007).

Results

Preliminary Measurement Model

The test of the preliminary six-factor CFA resulted in an acceptable fit to the data, $\chi^2(1073) = 8882.576$, $p < .001$, CFI = .913, TLI = .909, RMSEA = .058 (90% CI = .057, .060). Each of the six factors was well-defined with uniformly moderate to strong and statistically significant primary loadings. In addition, the four cross-loadings specified *a priori* were statistically significant and of a non-trivial magnitude. Factor correlations were consistent with the so-called calculus hypothesis, with adjacent factors more strongly correlated than distal factors, which were themselves more highly correlated than opposite dimensions. Given the acceptable fit of this solution as well as the theoretically admissible parameter estimates, we retained this model for the derivation of factor scores to serve as mixture indicators. Table 36.1 shows the means, variances, and correlations for the RIASEC interest factor scores.

Vocational Interest Profiles

Table 36.2 shows the fit indices for the LPA solutions estimated from factor scores obtained from the retained measurement model. The BLRT was not useful in selecting the optimal solution. The BIC, SaBIC, and CAIC continued to decrease with increasing model complexity (i.e., the addition of profiles), which is unsurprising in large samples. Inspection of the elbow plot of the information criteria (see Fig. 36.1) revealed that these indices levelled-off at around seven profiles, after which decreases in the criteria were generally minimal. An examination of the seven-profile solution and bordering six-profile and eight-profile solutions showed that all solutions were statistically admissible. In addition, the seven-profile solution

Table 36.1 Sample means, variances, and correlations for the RIASEC interest factor scores

Variable	M	1	2	3	4	5	6
1. Realistic	0.002	0.850					
2. Investigative	-0.012	.430	0.871				
3. Artistic	-0.010	.148	.429	0.845			
4. Social	-0.003	.002	.132	.447	0.850		
5. Enterprising	0.005	.203	-.053	.225	.513	0.831	
6. Conventional	0.008	.466	.057	-.085	.173	.537	0.877

Note: N = 2128. Entries on the diagonal are variance of the RIASEC indicators, and entries on the off-diagonal are correlations. All correlations $\geq .043$ are statistically significant at $p < .05$

Table 36.2 Fit indices and classification accuracy for the single group LPA models

	k	LL	#fp	AIC	BIC	SaBIC	CAIC	BLRT	Entropy
One profile	1	-17106.891	12	34237.781	34305.737	34267.611	34317.737	-	-
Two profiles	2	-16592.626	19	33223.252	33330.848	33270.483	33349.848	< .001	.650
Three profiles	3	-16344.335	26	32740.669	32887.906	32805.301	32913.906	< .001	.668
Four profiles	4	-16130.056	33	32326.111	32512.988	32408.143	32545.989	< .001	.722
Five profiles	5	-15960.240	40	32000.480	32226.997	32099.913	32266.998	< .001	.696
Six profiles	6	-15812.183	47	31718.365	31984.523	31835.199	32031.524	< .001	.736
Seven profiles	7	-15700.235	54	31508.471	31814.269	31642.705	31868.269	< .001	.743
Eight profiles	8	-15623.606	61	31369.212	31714.651	31520.847	31775.651	< .001	.718
Nine profiles	9	-15553.326	68	31242.652	31627.733	31411.689	31695.732	< .001	.733

Note: *k* number of profiles, #*fp* number of free parameters, *LL* mode log-likelihood, *AIC* Akaike information criteria, *BIC* Bayesian information criteria, *SaBIC* sample-size adjusted BIC, *CAIC* Consistent Akaike information criteria, *BLRT* bootstrap likelihood ratio test

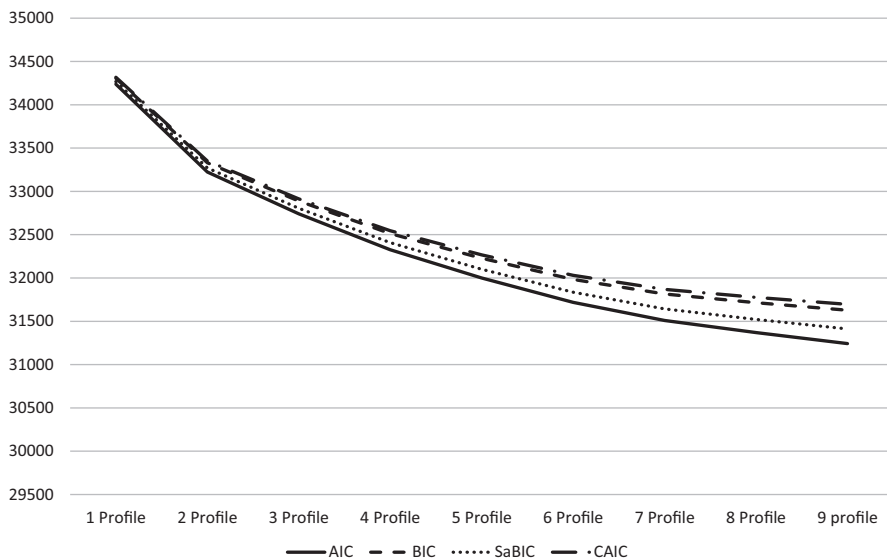


Fig. 36.1 Elbow plot of information criteria for the LPA models

showed a reasonable level of classification accuracy and was characterised by latent profiles resembling those found in previous person-centred analyses of vocational interest data (McLarnon et al. 2015; Perera and McIlveen 2018). For this solution, average posterior probabilities of profile membership in the target profile ranged from .763–.854 ($M = .804$), with largely low cross-probabilities (.000–0.136, $M = .045$). We retained this seven-profile solution for further examination.

The seven-profile solution is depicted in Fig. 36.2, and mean values of the profile indicators in each profile are shown in Table 36.3. The first profile, constituting 8% of the sample, is characterised by uniformly well-below average levels on all six vocational interests. This profile reflects low profile elevation and has been observed in previous person-centred work, labeled “disinterested” (Perera and McIlveen 2018). The second profile, constituting 6.6% of the sample, is characterised by the highest-level of the conventional interest, slightly below-average realistic interest, about-average levels of enterprising interests, and well-below average levels of artistic, investigative, and social interest. This profile configuration converges with the “conventional dominant-profile” found in prior work (Perera and McIlveen 2018). Profile 3, constituting 12.0% of the sample, is characterised by the highest levels of social interest, above-average enterprising interest, slightly-below average artistic interest, below-average conventional interest, and well-below realistic and investigative interests. This configuration aligns with the “social-dominant” profile observed in extant work (Leuty et al. 2016). The fourth profile, constituting 16.7% of the sample, is characterised by the highest level of artistic interest, above-average investigative and social interests, below-average realistic and enterprising interests, and well-below-average conventional interest. This profile configuration resembles the “artistic-dominant profile observed in some prior work (Leuty et al. 2016).

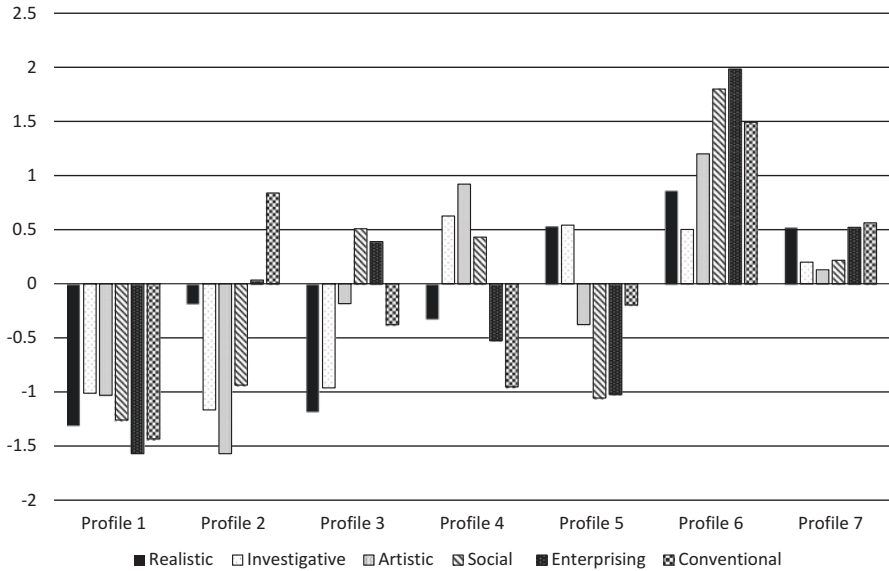


Fig. 36.2 Plot of the 7-profile solution. Note: Results were z-scores standardized to foster interpretation of the histogram

Table 36.3 Mean values of the RIASEC indicators in each profile from the retained 7-profile solution

Variable	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6	Profile 7
Realistic	-1.104	-0.152	-0.996	-0.271	0.454	0.732	0.444
Investigative	-0.893	-1.028	-0.850	0.533	0.460	0.425	0.162
Artistic	-0.881	-1.337	-0.165	0.768	-0.329	1.004	0.099
Social	-1.073	-0.799	0.429	0.363	-0.901	1.526	0.181
Enterprising	-1.300	0.033	0.329	-0.430	-0.843	1.654	0.438
Conventional	-1.250	0.743	-0.324	-0.828	-0.164	1.316	0.502

Note: Profile 1 = Low Profile Elevation (“Disinterested”); Profile 2 = “Conventional-Dominant”; Profile 3 = “Social-Dominant”; Profile 4 = “Artistic-Dominant”; Profile 5 = “Socially Disinterested”; Profile 6: High Profile Elevation (“Ambivalent”); Profile 7 = “Undifferentiated”

Profile 5, constituting 12.7% of the sample, is characterised by above-average investigative and realistic interests, slightly below-average conventional interests, moderately below-average artistic interests, and well-below average enterprising and social interests. Although the highest level of interest in these profiles are for the Investigative and Realistic interests, the profile is defined, substantially, by levels of social interest at over one standard deviation below the mean. Accordingly, we labeled this profile “socially-disinterested”. The sixth profile, constituting 4.4% of the sample, is characterised by uniformly above-average levels of all six vocational interests. This configuration is indicative of strong profile elevation and converges in shape with the “ambivalent” or “enthusiasts” profiles observed in previous work

(Leuty et al. 2016; Perera and McIlveen 2018). The final profile, constituting 39.7% of the sample, is characterised by levels of all six interest in the average to moderately-above-average range. This relatively undifferentiated configuration converges somewhat with the “flat” profile obtained in Leuty et al. (2016) and the “neutral” profile obtained in McLarnon et al. (2015), though patterns of relative differences in the indicators may reflect meaningful information about relative preferences we labeled this profile “undifferentiated”.

The results from this illustration of LPA show that there is unobserved heterogeneity in vocational interest data that can be sufficiently represented by seven latent profiles. The profiles identified paradoxically align, and depart from, normative circular and dimensional models of vocational interests (Holland 1997). For instance, whereas Profile 3 (“artistic-dominant”) is consistent with the calculus hypothesis regarding relative distances among the interests in the RIASEC circumplex structure, the presence of Profile 7 (“undifferentiated”), is perhaps less consistent with this assumption of relative distance insofar as the profile is characterised by little differentiation of mean levels of the interests. Profiles also emerged resembling high-profile elevation and low-profile elevation, which not only align with prior person-centred work (Leuty et al. 2016; Perera and McIlveen 2018) but may also be of considerable clinical significance. The deflated profile, indicative of low profile elevation, may reflect an existential state of depressed affect (Meldahl and Muchinsky 1997; Perera and McIlveen 2018; Saunders et al. 2000). The depressed client, by definition, has low levels of motivation manifest in low physical energy, activity, and interest, and a limited perspective of the future. Alternatively, McLarnon et al. (2015) noted that individuals with uniformly low levels of the interests may be those with postindustrial era career interests that are not adequately captured in the RIASEC taxonomy. The “ambivalent” subgroup, reflecting high profile elevation, may capture those who are interested in everything but vocationally uncertain and undecided.

Practice Implications

The profiles of vocational interest data obtained from the present latent profile analyses are potentially informative for practice. It is notable that the unique profiles are characterised by qualitatively and quantitatively distinct configurations of all six vocational interests. The results suggest that career counsellors and other relevant personnel (e.g., school psychologists, career guidance officers) may draw information from all six interests to provide a more holistic interpretation of clients’ unique interest configurations. This approach to interpreting clients’ data deviates from common approaches of using only two or three of the highest interests (e.g., Holland two-and-three letter codes) to guide clients’ career decision-making. Indeed, as recent work suggests (Perera and McIlveen 2018), it may be students’ disinterests, rather than interests alone, that push them towards or away from certain educational and vocational pathways. For instance, Perera and McIlveen (2018) found that people assigned to a latent profile characterised by very low levels of artistic and social

interest, in combination with high conventional interests, had the highest probability of STEM educational choice. Although this result is not altogether consistent with work suggesting that Realistic and Investigative interests are the primary determinants of STEM choice, Perera and McIlveen theorised a potential process of aversion from environments based on interests for which individuals may have particularly low levels. Without consideration of all six interests, these processes of aversion from educational and work environments, which may be equally powerful in educational and career choice, may be inadvertently overlooked. The person-centred approach used herein provide a parsimonious and prototypical representation of all six interests that career practitioners may use to guide career decision-making processes with clients.

Career practitioners may profitably use information gleaned from all six interests, co-existing at different levels within individuals, to better design career interventions based on all available information (Perera and McIlveen 2018) rather than from the two or three highest interests. Practically, career practitioners may use data on individuals' most likely profile memberships to identify intervention programs best suited to individuals' specific configurations. For instance, the interventions used for career guidance for those with low profile elevation may be qualitatively different to those used for people with high profile elevation. Intervening at the level of the prototypical latent profile represents an important efficiency for career practitioners. Such profile-level interventions may be more economically sustainable, particularly for large-scale career interventions (e.g., whole-school career guidance), than individualized intervention, but possess much greater precision and fidelity than one-size fits all approaches.

Concluding Remarks

The present chapter has been concerned centrally with providing an overview of latent variable mixture approaches to investigating unobserved heterogeneity in vocational data. Following an overview of the concept of population heterogeneity and the latent variable mixture approach to handling heterogeneity, we discussed empirical applications of mixture models in vocational research to show the utility of the approaches for investigating a range of research problems. We then provided an overview of the LPA model and illustrated the conduct of LPA model analyses using data on the RIASEC vocational interests.

Importantly, several extensions of this basic LPA model are possible to investigate increasingly complex research questions. For instance, researchers may draw on multiple-group tests of LPA similarity to examine whether profile configurations found in one sample (e.g., females) generalise to another sample (e.g., males) (see Morin et al. 2016; Perera and McIlveen 2018). It is also possible to examine predictors and outcomes of the probability of profile membership via auxiliary methods that ensure the stability of the profile solution (Lanza et al. 2013). Still, investigators may draw on factor mixture models to control for an underlying continuous latent trait in the data. This is particularly important where there is the expectation of strong generality in the data whose variance may conceal shape effects. LPA may be

extended to longitudinal designs, operationalised as latent transition analysis (LTA). Such models may be useful where it is of interest to investigate (a) the stability of the profile structure over time and (b) the consistency of individuals' profiles over times (i.e., whether individuals remain in the same profile or change profiles over time). Another longitudinal mixture model is the growth mixture model, which integrates latent growth curve models with mixture models. These models are useful in identifying latent subgroups that present distinct longitudinal trajectories on variables of interests. Yet another application is mixture regression analysis, which is concerned with investigating whether the relationships among constructs differ as a function of subpopulations. The general class of mixture models provides a powerful and flexible analytic framework for investigating population heterogeneity, which will likely be of considerable relevance to vocational researches.

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Chapter 37

Action Theory: An Integrative Paradigm for Research and Evaluation in Career



Richard A. Young and Ladislav Valach

Abstract In this chapter, action theory is proposed and illustrated as a paradigm for research and evaluation in educational and vocational guidance. Action theory reflects the common experience that people understand their own and others' behaviours as goal-directed. Contextual action theory provides the basis for linking action and career. This paradigm allows researchers to address issues of quality educational and vocational guidance research by proposing a framework in which understanding the goals, internal and social processes, and the behaviours that compose action, and by extension career, is enhanced. Specific research methods applicable to career guidance include identifying action as the unit of analysis, data gathering procedures, and data analysis. The application of the paradigm to counselling as one of the primary processes in career guidance is used to illustrate the usefulness of the action theory paradigm in research in this field.

Keywords Action · Paradigm · Project · Evaluation · Method · Practice

This chapter is situated in a section of the *Handbook of Career Guidance* entitled "evaluation of educational and vocational guidance." The authors of the adjacent chapters address topics such as the evaluation of programmes and person-centred approaches to career development. The evaluation of career counselling programmes is a well-established practice (Whiston et al. 2017). In this contribution, the choice was made to take up this important issue from a different perspective. It is the intention to present a paradigm or model in which the evaluation of educational and vocational guidance can be understood and practised.

The notion of a paradigm is important in career research and evaluation because it answers the "why" question of any investigation. In this way, career research and evaluation can represent a well-reasoned process, not merely a routine institutional response. The title of this chapter specifies an integrative paradigm. Educational and

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vocational guidance, and the larger domain of career of which they are a part, are complicated and complex phenomena. One-off and isolated studies can answer specific questions, but frequently do not address the larger picture. A framework or paradigm is needed in order to integrate knowledge from specific research and evaluation studies.

Any kind of evaluation is guided by two sets of beliefs, whether tacit or explicit (Kellaghan and Stufflebeam 2003). One set of beliefs is about the content area, that is, what the evaluators believe about canned vegetables, learning French, or, in the case of this chapter, educational and vocational guidance. The authors of the chapters of this *Handbook* have delineated a rich range of beliefs about educational and vocational guidance and career. These beliefs are themselves based on research, evaluation, anecdotal practice, and conceptual frameworks. The second set of beliefs that guide evaluation includes those beliefs about the processes of research and evaluation and what these processes are intended to accomplish.

In most cases, the congruence between beliefs about the content and the evaluation process is assumed, but not well examined. In some cases, however, the degree of discontinuity between these beliefs raises impediments for conducting evaluation and research and for understanding and acting on their findings. Beliefs about evaluation are frequently guided by practical issues, such as, what are the goals of the evaluation, what questions need to be answered, how should data be analysed and presented, what meaning will the findings have? These are questions that reflect one's understanding of the content domain. Although touched on only briefly here, these issues are very substantial. When not well reflected in studies, the research or evaluation can lead to unintended consequences in educational policy and programmes, and in educational and vocational guidance practice.

An integrative framework for the evaluation of educational and vocational guidance has to enable evaluators to identify processes and outcomes. It also should be broad enough to capture the four levels of career explanation Savickas (2002) identified, that is, dispositions, concerns, narratives, and processes. The framework must also speak to practice, research, and theory. The challenge of meeting these criteria is significant. The contextual action theory of career (Young et al. 2002, 2015a) goes far to meet this challenge. However, this challenge is not fully met by simply identifying the factors and their relationships at play in an integrative framework for educational and vocational guidance. How these factors work together to form a life-enhancing career that, in turn, can be the basis for evaluation is discussed in this chapter.

As the title suggests, this chapter also seeks to integrate research and evaluation in educational and vocational guidance. In common usage, research is the superordinate term that refers to a "systematic investigation designed to develop or contribute to generalizable knowledge" (United States Department of Health and Human Services 2005, Code of Federal Regulations, 46.102(d), p. 118). Evaluation is generally understood as determining the worth of something, usually a programme; for example, a programme intended to assist people to re-enter paid employment

after a period of absence is appraised by its outcomes. Evaluation can also refer to the evaluation of a person, as in a self-evaluation or the evaluation of a client in an educational or vocational guidance programme. It is important to signal a caution here that to limit evaluation to determining the worth of an outcome may be to significantly constrict the nature of educational and vocational guidance. Minimally, researchers and programme evaluators should be interested in processes as well (Young and Valach 2009). But another critical question is whether educational and vocational guidance should be limited to technical knowledge and practice, although in many cases it is. In this contribution it is maintained, however, that educational and vocational guidance is more than technical competence that can be subsumed simply by the evaluation of outcomes. Previously, the authors asserted that career and career decision making were fundamentally moral and socio-cultural undertakings (Young et al. 2007a; Young and Valach 2004). Thus, the paradigm should go beyond technical knowledge by acknowledging a hermeneutic dialogue, in Taylor's (1989) sense, that is not readily bounded by language, history, or culture.

Research in the sense of generating new knowledge is a goal that has, in the canon of traditional science, stood outside the criterion of worth. It has been associated with natural phenomena. It is mostly related to "what is". Knowledge was seen as a worthwhile goal in itself, and often separated from the social, political, and economic context. In contrast, the definition of evaluation implies judging quality in light of criteria. It is associated with the traditional notion of *qualia* (Chumley 2013), where no amount of information about the phenomenon itself suffices for knowledge. These two domains developed separately and it took some time until evaluation was discussed as a legitimate process in research and until research methods were introduced into evaluation. The critical feature of an integrative paradigm for research and evaluation in career is one in which aspects of consciousness and natural phenomena are considered together. Intentionality, the construct that is central to the paradigm proposed in this chapter, implicitly joins natural phenomena to goals and thereby to worth. Thus, the proposed paradigm is integrative in bringing natural phenomena and *qualia* together, and thus linking research and evaluation. Intentionality also serves to integrate *noema* and *noesis*, that is, an experienced phenomenon and its mode of being experienced (Sharoff 1995). These steps listed here in a telegraphic manner took a long time to develop in the philosophy of science and are still only seldom encountered in educational and vocational guidance research and evaluation.

This chapter begins with an overview of action theory as an explanation of career. This paradigm is then illustrated by applying it to the issue of what constitutes a life-enhancing career, under the assumption that educational and vocational guidance is ultimately directed at facilitating such careers. How the paradigm is applied to research and evaluation in career is discussed with reference to what it allows researchers, programme evaluators, and counsellors to do; the procedures for its use in research and evaluation are provided. In addition, its use in counselling, one of the primary means of educational and vocational guidance, is described.

The Contextual Action Theoretical Paradigm

Consider the client in an educational and vocational guidance programme. This hypothetical client reflects an image of person, who can understand the aims and goals of other people, draw them into his or her goals, and join them in actions and projects in such a way that several important goals are achieved. The tasks and personal issues that the client is involved in alone or with others point toward these goals. The client can perform actions, not disturbed or inhibited by traumatic emotional memories. He or she can work on projects and is skilled in participating in them, that is, the client reflects and responds to social and cognitive-emotional issues, and how a project may be organised. At the same time, he or she maintains personal goals while engaging in the project. The client has a sense and appreciation of life coherence and meaning identified in terms of goals, including those that have been achieved and to be achieved. The client also understands how these goals are organised across time. He or she also has a sense of happiness and being appreciated by others.

The optimal processes described above should be addressed, understood, and supported in life generally. Moreover, they should be specifically fostered in career guidance programmes. The assumptions that undergird this scenario have recently been addressed and discussed by various professionals, often in terms of positive psychology (Csikszentmihalyi and Csikszentmihalyi 2006; Ivztan et al. 2016; Peterson 2013; Snyder and Lopez 2009). Contextual action theory provides a conceptual framework or paradigm for understanding these processes.

The contextual action theory of career is based on the notion that the common experience of people, both within educational and vocational guidance programmes and in their lives more generally, is that their own and other people's behaviours are understood as goal-directed actions (Young et al. 2002, 2015a). This framework for how people understand and make sense of human behaviour looks to the goals of action and other action processes rather than the causes of behaviour for understanding. It posits a significant link between action, project, and career. *Action* refers to the intentional goal-directed behaviour of persons. When several discrete actions that occur over a mid-length period of time are constructed as having common goals we consider them a *project*. Finally, when projects coalesce over a long period of time and have a significant place in one's life, then we can speak of *career*.

In addition to being goal-directed, action is cognitively steered and regulated, that is, as people act, they steer that action based on their thoughts and feelings. Action is also socially influenced. In the case of joint actions, the steering and regulation of action reflects communicative as well as internal processes. Finally, action is also represented in specific conscious and unconscious behaviours that the person uses in engaging in the action.

The action theoretical paradigm proposed here has a significant social dimension. By conceptually linking action, project and career, we have already moved beyond the idea of the individual—whether considered from the perspective of per-

sonality traits or individual decisional processes—to ideas of joint action and the embedding of actions in socially constructed projects and careers (Valach et al. 2002b). The intentionality that was mentioned before reflects, at one level, the individual intentions of the actors that they both bring to and that are generated within actions. It can also be agreed with Shotter (1993) that joint action captures intentionality that is not fully accounted for by the participants' individual intentions.

This paradigm suggests a definition of career that differs from many definitions of this term. Essentially, career can be defined as “a superordinate construct that allows people to construct connections among actions, to account for effort, plans, goals, and consequences, to frame internal cognitions and emotions, and to use feedback and feed forward processes” (Young and Valach 1996, p. 364). This long-term construction is dependent on the construction of *projects* of a mid-term length, and projects are only possible when they can be seen as relevant actions that are associated through common and hierarchically-linked goals (Young et al. 2011b).

In this definition, the authors made an important conceptual link between action and career. It also uncouples the link between career and occupation, suggesting that long-term, life-sustaining goals can and are found in other areas of life. Career is not simply an occupation or a series of occupations. In modern parlance, career is understood as a central construct through which people make sense not only of specific aspects of their lives, but major domains over extended periods of time. Mid-term projects provide an important link between actions and career and need more careful attention in the evaluation of vocational and educational guidance (Young et al. 2007b).

One can readily identify the goal-directedness of action both within career counselling programmes and in the daily lives of people. The goal-directedness of action can be discussed and understood as intentionality, which is to say that actions, projects and careers are about something. What they are about reflects the intentionality of the action. This paradigm reflects a strong view of intentionality.

These systems are further specified as being organised at several levels. Long-term career, mid-term projects, and short-term actions can be considered at the level of meaning (what meaning can be and is offered and realised through them). Meaning is captured through the goals that an action, project or career has. It is recognised in the social dimension of human action, that is, in how others see the action. A second perspective on action, projects and career involves the internal or communicative processes that the person engages in to steer them. Finally, there is the perspective of the manifest behaviour that the person engages in and the structural and personal resources as well as unconscious processes that support or detract from that behaviour (Domene et al. 2015; Valach et al. 2002b).

Notwithstanding the conceptual link among action, project and career, they are distinguished by the length of time that one is involved in them as well as the significance of how particular actions and projects are hierarchically organised within careers. As actions take on a longer time perspective in a project or career, they inevitably imply greater social connection and embedding. These projects and careers are constructed in the context of roles, norms, laws, and expectations of larger and more complex social groups and institutional order. One can readily

engage in a caring action toward another person for a few minutes without significant reference to the larger social context. However, the caring actions and projects that contribute to the career of a parent can only be fully understood in the larger social context in which it is lived out (Young and Valach 2004). Thus, this contextual action paradigm for career provides an important link to culture (Young et al. 2007a). Action relates an individual to his or her culture. Goals, cognitive and social processes, and behaviours are transparent and available within cultures, and cultures are continually reconstructed by them. Career, through actions and projects over the long term, allows one to relate to the complexity of environments in which one participates over time, that is, our culture or cultures. It is through career that one can engage more fully with culture and it is culture that allows us to engage in career. This is a complex interaction as both career and culture are high order constructs. But culture represents more than individual beliefs and opportunities, and career is more than either action or project (Valach et al. 2015).

The contextual action theory framework for career is itself not prescriptive. It does not describe what should be the case. Rather it is a conceptual framework that allows for understanding the constituent parts of career. By examining each of the constituent parts, one can propose what may be life-enhancing rather than life-limiting. The critical feature is that, because this paradigm posits interrelated systems, process and levels for our understanding of career, it allows a more detailed response to what comprises the life-enhancing career.

Life-Enhancing Career

This paradigm based on goal-directed action leads us several steps closer to issues of quality in research and evaluation in educational and vocational guidance by linking natural phenomena to the consciousness within which goals are held, as was pointed out earlier. Thus far, a framework for understanding goals, and internal and social processes and behaviours that compose action was developed. But, the goals themselves have not yet been identified. At some level to identify goals explicitly would be to undermine the representation of intentionality in the assessment of quality. It would suggest that the person him- or herself, with his or her individual and joint goals, is not important in understanding how this paradigm can address what should be the case in life. Indeed, one may argue that the opposite is the case, that the contribution of this paradigm is that it links goals to natural phenomena. Nevertheless, this paradigm can be used to illustrate how a life-enhancing career can be formed through the attention to action, project and career, and thus gently point to evaluative criteria in research and evaluation (Young and Valach 2009).

From time immemorial, philosophers and religious leaders have been interested in what composes the good life, or what makes a life good, or worth living. Among the answers are various combinations of knowledge, friendship, beauty, altruism, and acting out of sense of duty. In the same vein, the phrase “to love and to work” has been attributed to Freud in answer to the question of what constitutes mental

health. Vaillant (2003) suggested recent attempts in psychiatry to identify the factors contributing to positive mental health, including models of normality, positive psychology, and maturity, must consider the capacity to love and to work over time as well as the assessment of social competence and coping style. Similar questions have been asked in the field of occupational psychology. For example, Warr (2002) identified the psychological attributes of work that are important for psychological well-being. These include personal control, and opportunities for using one's skills and for interpersonal contact (see also Linley et al. 2010).

These characteristics of the good life reflect, in one way or another, the action theoretical paradigm proposed for the field of career. But these findings represent a rather static understanding of traits, statuses, or environments. What is added in the paradigm proposed here is their grounding in a conceptual framework that includes the dynamic relation among action, project and career. This comprehensive approach also uses the three levels in which actions are organized, namely meaningful goal level, the level of steering and control of the cognitive-emotional and interactive action, and the level of action elements with its process of regulation. Thus, rather than consider one or other characteristic of the good life that may contribute to a long-term goal, such as friendship, altruism, or work status, a fuller understanding can be had through this dynamic perspective.

While critical moments of decision are important, the good life is also composed of the actions of everyday life. Kupperman (1999), for example, suggested that the life worth living is created between the moments of the big decisions such as occupation, education, or having a family. This is true in vocational guidance as well, when, for example, significant decisions are considered as supported by longer periods of exploration and trial. The point here is that an integrative paradigm should include everyday actions as well as larger frameworks and phenomena such as those identified as career.

The question of what composes the good life, although broad, can be re-phrased in the career field as, "What comprises a life-enhancing career?" By life-enhancing is meant intensifying or increasing the quality of life. It denotes careers that lead one to fullness and can be understood as maintaining the human person over a long period of time, despite the negative turns and twists of fate. The notion of the life-enhancing career is proposed because evidence suggests that all careers, and the occupations that contribute to them, are not necessarily life-enhancing. In fact, many would report careers that are life-limiting, life-diminishing, and even life-destroying (Valach et al. 2006b).

Answers to questions similar to the one that was posed above are emerging in various areas of psychology, for example, positive psychology (Lopez 2009; Seligman and Csikszentmihalyi 2000), strength-based counselling (Smith 2006), and posttraumatic growth (Tedeschi and Calhoun 2004). The answer to the question, "What comprises a life-enhancing career?" is based on the contextual action theory of career that has been described above and elsewhere (Young et al. 2002, 2015a). The rationale for answering this question is at the core of the counselling perspective presented here and critical to research and evaluation in this area.

At first glance, the challenge of answering the question of the life-enhancing career seems formidable but by breaking it down into its constituent parts the answer becomes manageable and useful to counsellors. The answer is directly related to the issue of assessment and evaluation in career guidance. The possibility of generating an integrative paradigm for research and evaluation in educational and vocational guidance requires it address comprehensiveness and specificity. Unless our understanding of career has breadth and depth, then subsequent evaluations of career guidance programmes are apt to be piecemeal and fragmentary. The approach requires the specificity to allow the evaluator or researcher to look in detail at a range of career components and processes and broad enough to see them in the context of the whole (related to each other).

Table 37.1 presents a range of components involved in the life-enhancing career. It reflects the two dimensions identified in the contextual action theory of career, that is, the systems of goal directed processes in forms of action, project and career and the levels of action organisation. Reading across the table from left to right, the reader will see that the conceptual relationship between action, project and career has been posited; that is, meaningful goal-directed actions can lead to motivated

Table 37.1 Domains and issues of the life-enhancing career

	Meaningful goal-directed actions	Motivated participation in projects generated by actor and/or others	Life-enhancing career
At the level of meaning	Shared action goals	Joint, goal-directed projects	Long-term meaning of life
	Relevant to projects and career	Cooperative	Socially integrated
		Emotionally sensitive Relevant to career and identity	Emotionally satisfying
At the level of functional processes	Serving identity and goal processes	Mid-term challenging	Long-term challenging
	Emotional and cognitive components	Successful steps	Allowing predictability and novelty
		Positive feedback in cooperative undertakings	Attendance to emotional issues
		Emotionally functional	
At the level of unconscious and conscious behaviour, structural support, resources	Energy	Adequate structural support	Long-term adequate time and sequence
	Cognitive and emotional regulation	Predictable and manageable time order	Structural properties
	Skills	Adequate emotional resources	Resources
	Habits		Functional emotional regulation

participation in projects, which, in turn, can lead to a life-enhancing career in the long-term. In each case, an evaluative word has been added to denote that it is not just any action, project or career that is of interest, but actions that are meaningful, projects that reflect motivated participation, and careers that are life enhancing. The implication is that the evaluative terms are linked as well.

The levels of goals, internal and social processes, and elements are provided when one reads the table from top to bottom. The meaning level represents how specific actions, projects, and career represent goals and how these goals fit into the larger pictures of our lives. These actions, projects and career are steered through internal and social processes (our thoughts and feelings and our interactions with others). Finally, the specific verbal and non-verbal behaviour that we engage in is represented at the third level. This level also recognises that unconscious processes are likely to play in people's behaviour (Dyer et al. 2010). As well, it suggests that behaviour is supported or not supported, as the case may be, by structural variables and resources. It also suggests that functional emotional regulation, skills, and habits are critical.

The cells of this table are illustrated with specific concepts and constructs. The effort here is to be illuminating rather than comprehensive, but the items in the table go a long way to describe the components of the life-enhancing career. Some examples of the relationship among the components of the table follow. One cannot expect a person to engage in a meaningful joint project if he or she does not have the skills needed to engage in the actions in that domain. The International Labour Office considers employment skills to be a crucial factor worldwide in sustaining and enhancing opportunities through work (International Labour Office (ILO) 2006). In Young and colleagues' research, they have repeatedly run into the lack of time and poor time management as deterrents to the joint projects of parents and adolescents pertinent to the adolescent's future (e.g., Young et al. 2006). Further, the possibility of a long-term, life-enhancing career in the occupational sense is being continually eroded by massive economic and social changes in the world of work (Blustein 2013). Sennett (1998), for example, did not use the goal-directed language of this chapter but essentially argued that changes in the structural properties of work through increased competition, flexibility, globalisation and other factors may be associated with the experience of betrayal (attendance to emotional processes—cognitive and emotional steering) and lack of relational connection (at the level of meaning) needed for the life-enhancing career.

More challenging is to appreciate the place of steering processes in these three systems of action. One can readily recognise that as one engages in action, at the moment, one has thoughts and feelings which serve to guide that action in the moment, for example, the anxiety a person may experience at a job interview (Feller and Powell 2015). For mid-term projects, one's cognitive and emotional steering requires that tasks remain challenging, that there is positive feedback, and success is experienced. For example, Salmela-Aro et al. (2004) showed that personal work projects offered a heuristic framework for understanding and reducing negative emotions at work, pointing out the salience of the connection between projects and internal processes. For longer-term careers, one expects that the steering processes

will involve a succession of necessary steps, a regular attendance to important issues such as those related to emotional and physical wellbeing and the relevance of these steps to the overall goals and values.

Finally, at the level of meaning, goal-directed individual and shared actions and projects are addressed. The relevance of actions to projects and career is of decisive value. Ongoing alternate attention would have to be paid to the relevant projects in the person's life, not only to occupational or educational ones, but also to identity, relational, and emotional projects. Their quality stems from their regulatory value and their contribution to the larger long-term goal-directed system persons engage in. In the career systems, the issue hinges on the contribution of the career to satisfactory projects and actions as well as to issues of meaning of life, spiritual qualities, individual and community existence, survival, and flourishing. A range of studies have shown the significance of the meaning level of anticipated or realised long-term career (e.g., Bauer and McAdams 2004; King and Napa 1998).

It would be presumptuous to imply that this explanation of the life-enhancing career closes the circle on our search for the good life. Although life-enhancing careers are possible, people never experience them as complete. One's search for meaning continues. The question of career, of "What kind of life am I to have?", is an existential and ethical question that no amount of technical and rational knowledge can fully answer. As an open system, new actions, projects and careers arise and are, or potentially are, continually in the making. The call for participation and engagement in life, the sense of responsibility, and the ongoing desire for meaning making reflect aspects of intentionality that ensures the openness of this system.

Research and Evaluation Methods

The specific means to conduct research and evaluation studies in career guidance using the action theoretical paradigm have been described elsewhere (see Wall et al. 2016; Marshall et al. 2012; Valach et al. 2002b; Young et al. 2005). These methods include the following.

The Unit of Analysis

The action is the unit of analysis in research and evaluation framed from an action theoretical perspective. This unit of analysis contrasts with the person, which has typically been the unit of analysis in career guidance studies. Some studies may assume a unit of analysis that is an extension of action, that is, they may focus on project or career. More specifically, it is the action in which the person or persons are involved jointly. In the case of projects, this can be represented as a series of actions over time that the parties involved in it see as having common joint goals.

For example, one domain of transition-to-adulthood projects are the series of actions between friends, which have been identified and researched (e.g., Young et al. 2015b).

Data Gathering

The data gathering reflects the perspectives on action proposed earlier, that is, it is recommended that researchers collect data from the three perspectives, manifest behaviour, internal processes, and social meaning (Young et al. 2005). First, video-recording is used to collect data about the manifest behaviour involved in the action, but other means to observe and record the manifest behaviour associated with action are also appropriate, including self-observation. The focus, however, in collecting data about the manifest behaviour of action is to have a concrete record of behaviour for use during the analysis. Second, data are gathered about the internal processes that participants use to steer and guide their action. These thoughts and feelings are gathered immediately following the action by using the self-confrontation procedure (Young et al. 1994). During this procedure, the manifest behaviour just collected on video is played back for the person or persons separately, the video is stopped at intervals of 1 or 2 min, depending on the length of the meaningful action unit, and the person is asked to recall what he or she was thinking or feeling at the time of the action that has just been replayed on the video. Data on the person's internal processes while the action is taking place can also be gathered through diaries and other self-assessment forms where the person is asked to recall thoughts and feelings about a current or just completed action (e.g., Csikszentmihalyi and Larson 1984). Finally, data are collected about the social meaning of action by encouraging the persons themselves and others, such as naïve observers, to comment on the action as appropriate. One source of this social meaning data is provided in the self-confrontation interview, where the partners comment on each other's actions, but other means of accessing the naïve observations of the participants' cultural and language community represent suitable ways to collect social meaning data, including interviews and diaries. The critical factor in data-gathering is not the specific data gathering means described above, but that the researchers and evaluators obtain substantial data from the three data sources identified. When taken together these data can contribute significantly to understanding the action in question. We have to accept that systematic observation is based on social understanding without paying tribute to ideological biases. As such observation is not independent from the assumed subjective processes of the observed.

Analysis

The research or evaluation question is critical in the analysis of the data just described. Essentially, the method requires that, as a result of the analysis, researchers can describe the actions in question, and then to infer projects and careers in which participants are engaged. The analysis as proceeding from description to organisation has been described (Wall et al. 2016; Young et al. 2005). Two critical steps in the analysis are working from both a top-down as well as a bottom-up fashion. In the top-down procedure, the effort is to identify broad intentional frameworks and series of goals and sub goals for the participants involved in the action, as well as to identify their joint goals. Subsequently a bottom-up analysis is undertaken in which the specific verbal and non-verbal behaviour involved in the action is analysed at a micro level and attention is paid to regulation of behaviour and to unconscious and subconscious processes, to the extent that access to these processes is available. This analysis of behavioural elements is then used to identify the functional steps that are subsequently related to previously identified goals and sub goals. Finally, the identification of action steps comes together in a comprehensive description of the action, project, or career under scrutiny.

Application of the Action Theory Paradigm to Counselling

Counselling is one of the primary processes in educational and vocational guidance. One of the important reasons for choosing the action theory informed paradigm for research and evaluation of educational and vocational guidance is its ability to capture how counselling itself is organised and encountered (Young et al. 2015a). An attempt will be made to make the case below that counselling can be understood and practised from an action-theoretical paradigm. If this paradigm is heuristic in understanding counselling, then its use as a framework for research and evaluation of counselling is warranted. In this discussion, counselling is used as a case in point. This discussion can be applied to other formal and informal educational and vocational guidance interventions and programmes.

When meeting clients, counsellors should offer their professional services in such a way that the clients are able to unfold, develop, and expand their ongoing projects and career in both their narrative and the actual process of the encounter with the counsellor (Young et al. 2015c). Clients' narratives may represent some or all of the nine cells depicted in Table 37.1. Counsellors should initially encourage the construction of the narrative as a whole, but recognise that the perspectives and organisation of any narrative can be extensive. Counsellors also must be able to assist clients to present themselves as self-responsible, meaning-making, and goal-directed agents who experience themselves in this way in the encounter with the

counsellor, thus giving them good reasons to believe that they will proceed in a similar manner in their actions and projects following counselling.

Joint Actions During the Counselling Encounter

To organise the encounter with clients, counsellors should aim at identifying and using significant joint actions and projects between themselves and their clients (Young et al. 2015c). One possibility for the counsellor is to help clients understand their own goals. Counsellors can inform their clients that they will assist them by helping to identify their goals. In turn, clients will see the counsellor as someone who takes them seriously, who understands them, and who also will help them to achieve their goals. Counsellors can encourage clients to provide narratives of the ongoing action, projects and career with which they can work. Counsellors must show that they take the clients' feelings seriously and understand them accurately. This is particularly the case when clients show emotion related to traumas they have experienced in their life career (Michel et al. 2004; Valach et al. 2002a). At the same time as recognising, addressing, and understanding these feelings, counsellors must respect the client's narrative in which client emotion is embedded.

Counsellors can assist in the joint construction of the narratives by helping clients to transform their ideas and experiences to a linguistic form, while being supported during this process (Young et al. 2015c). As this often is difficult to achieve in one interview, a procedure was adopted, which helps us in repeatedly returning together with the clients to the interview to address issues at various levels. The video supported feedback, called the self-confrontation interview, which was discussed earlier as a data collection procedure, can also be used in practice. It consists of video recording the interview and subsequently playing back meaningful segments to clients to discuss specific issues (Young et al. 2015c). Counsellors can ask about and attend to the feelings and thoughts clients had during the interview, and they can ask about additional information such as context or background data, about client assumptions, or the implications of particular statements. This procedure allows counsellors to limit their interruptions during the interview itself to a minimum without losing anything.

Joint Goal-Directed Processes Preceding Counselling

Our empirical research, informed by this action theoretical paradigm, has shown that people organise their ongoing life processes in terms of actions, projects, and career (e.g., Valach et al. 2016; Young et al. 2001, 2006, 2018). These actions, projects, and careers also serve individuals as a cognitive and social organisation scheme or frame of reference for their experiences as well as a means for them to present their lives and their involvement in their lives. Once given the authority and the

freedom to steer the joint actions with counsellors according to their own standards, clients will provide narratives that are built up in this way. In various studies with research participants involved in naturally unfolding conversations with their peers or family members, we demonstrated how the participants described their ongoing life processes in terms of joint goal-directed actions, projects and careers (e.g., Young et al. 2001, 2006, 2018). In addition, the video recording of such naturally occurring interaction of clients with their peers or parents, and the subsequent self-confrontation enables counsellors to recognise and uncover clients' joint projects. Most often these projects are relevant to the clients' vocational career or other foci of counselling.

Vocational Actions, Projects, and Career Following Counselling

Any counselling or educational or vocational guidance intervention or programme strives for clients' self-responsible agency in organising their lives in terms of goal directed actions, projects and career following the intervention or programme (e.g., Young et al. 2011a). This is true, as well, of naturally occurring guidance, such as the joint actions of parents and adolescents intended to facilitate the adolescent's career development or transition to adulthood in a trans-generational cultural context (Young et al. 2003). It also occurs in formal programmes intended to facilitate these types of outcomes, such as counselling for the transition to adulthood (Young et al. 2011b), psychotherapy (Valach and Young 2013), counselling and psychotherapy for persons who have attempted suicide (Valach et al. 2006a), in teaching (Valach and Stevens 2008) and for rehabilitation clients (Valach and Wald 2002). However, the self-responsibility for organising one's life in terms of goal-directed action, project, and career is evident for a full range of people, including those, who, after traumatic experiences, found a sense of coherence (Antonovsky 1979) and life meaning (Frankl 1992).

Conclusion

In this chapter, we have attempted to show that the action theory paradigm is particularly well suited to research and evaluation in educational and vocational guidance. It is particularly suitable to the extent that educational and vocational guidance is directed toward establishing, maintaining and changing joint processes that are present at the action and project levels. Educational and vocational guidance is not usually directed at structural changes in the client's life, thus, the proposed paradigm does not address structural change explicitly. For example, the purpose of counselling or other educational and vocational guidance programmes is not usually to change the economic conditions of a person's life directly, nor is it to increase the number of occupational opportunities in a particular field. It is not expected that

structural changes by themselves will engender a good life or a life-enhancing career. Consequently, the role of counsellors lies in supporting their clients in these processes and not in ‘repairing’ structural or other factors.

As a paradigm for research and evaluation in educational and vocational guidance, the contextual action theory of career accomplishes five goals. First, it emphasises the processes level of conceptualisation proposed by Savickas (2002) without losing any of the perspectives provided by dispositions, career concerns, or narrative. Secondly, it opens the understanding of evaluation by focusing on processes as well as outcomes. Thirdly, it shifts the focus of research from studying the “reasons why” phenomena occur to studying the “reasons for” by bringing consciousness and natural phenomena together; that is, its perspective is teleological rather than causal. Fourthly, it recognises formal and informal educational and vocational guidance as a largely joint process. Finally, it sees action, project, and career as open systems in which fundamentally moral questions can be and are asked.

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Chapter 38

Evaluation of Career Guidance Programs



Susan C. Whiston, Nancy Goodrich Mitts, and Yue Li

Abstract This chapter focuses on the evaluation of career guidance programs, which is an important endeavour for practitioners as stakeholders often want information on the effectiveness of career guidance interventions. The authors first examine previous research related to the effects of career guidance programs or interventions with a discussion of the effectiveness of career guidance programs, which modalities are preferable in providing career guidance, which clients benefit from these interventions, and outcome measures that are typically used in the evaluation of career guidance programs. Second, the authors provide a summary of how to conduct an evaluation of a career guidance program. This overview utilizes the six-step process for evaluating career counselling programs proposed by Whiston and Brecheisen (Evaluating the effectiveness of adult career development programs. In: Niles SG (ed) *Adult career development: concepts, issues, and practices*, 3rd ed. National Career Development Association, Alexandria, pp 367–384, 2002). These six steps are (1) identify the focus of the evaluation; (2) formulate the evaluation design and procedures; (3) determine evaluation or outcome measures; (4) gather information; (5) data analyses and interpretation; and (6) methods for using the information.

Keywords Career guidance effectiveness · Evaluation process · International career guidance evaluation

The *International Handbook of Career Guidance* is intended to provide practitioners and researchers information concerning how to both implement and evaluate career guidance internationally. Dennehy (2003) argued that career guidance must be lifelong, accessible, and meaningful for all individuals. Though there is an extensive body of literature related to theories of career guidance and counselling, we cannot afford to assume that sound theory is equivalent to good practice. Thus, research that develops and evaluates career interventions is a necessity for the future

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of career guidance. This can be achieved through the national and international levels of collaboration of policy-makers, researchers, trainers, practitioners and other stakeholders to guarantee the integration and evaluation of career guidance services and to ensure that the services are comprehensive and quality driven.

This chapter will focus on the evaluation of career guidance programs by first examining the current research related to the effects of career guidance programs or interventions with a focus on general trends on the effectiveness of career guidance. Consistent with other chapters in this volume, the definition of career guidance is quite broad and will include various interventions or programs that are designed to facilitate career and, to some extent, academic and personal development. Second, the authors will discuss how current practices regarding the effectiveness of career guidance programs can be translated into evaluating various programs in diverse settings. This discussion will not provide a list of approved evaluation tools but will focus on the complexities of thoroughly evaluating career guidance programs with an appreciation of cultural considerations. We will conclude the chapter with recommendations for further research and evaluative studies and provide suggestions on how career counsellors or guidance specialists can work with researchers or scholars to enhance the overall quality of the evaluation of career guidance programs.

Are Career Guidance Programs Effective?

One of the first questions an administrator, parent, or client may ask is whether a career guidance program is worth either the time or financial investment. Although there is over 50 years of research related to evaluating career guidance programs, the answer to whether career guidance programs are effective is equivocal and cannot be adequately answered with a simple response. Meta-analyses are an important source of data in examining the effectiveness of career guidance programs. In meta-analytic studies discussed in this chapter, typically the mean of those who received the career guidance program is compared to those who did not receive the treatment in a statistical procedure that combines the results from multiple studies into an average effect size. The average effect size provides a standardised mean difference and indicates the degree to which career guidance programs are effective as compared to no programs (i.e., a control group).

There have been a number of meta-analytic studies to date that have examined the effectiveness of career interventions. Spokane (1991) defined career interventions as any activity designed to enhance an individual's ability to make improved decisions. Oliver and Spokane (1988) examined studies on career interventions published before 1982 and found an unweighted delta effect size of .82; whereas, Whiston et al. (1998), replicating the same procedures as Oliver and Spokane with studies published between 1983 and 1995, found an unweighted average effect size of .45. While these effect sizes may appear discrepant, a careful examination of these findings reflects some similarities in results. Oliver and Spokane reported that

their mode and median fell within the .40–.60 range, which are similar to the effect size of .45. When sample size is considered, the difference between the effect sizes also diminishes. Whiston et al. found a weighted effect size of .44, as compared to Oliver and Spokane's weighted by sample effect size of .48. In recent years, a number of researchers (Lipsey and Wilson 2001) have recommended a procedure for correcting effect size based on sample size and the inverse variance of the effect size. A third meta-analysis, Brown and Ryan Krane (2000), used this procedure and found an overall effect size of .34, which is similar to the effect size of .30 that Whiston et al. (1998) found using this same procedure. The most recent meta-analysis of career interventions by Whiston et al. (2017) replicated the procedures of Brown and Ryan Krane (2000) using a random-effects approach, which accounts for the possibility that the samples included in the analysis may come from different populations. Whiston et al. (2017) found a mean effect size of .35. Lastly, a recent meta-analysis of job search interventions found that the odds for obtaining employment were 2.67 times higher for individuals who participated in a job search intervention as compared to those in a control group (Liu et al. 2014).

Taken together, these meta-analyses present evidence that a broad range of career interventions are moderately effective, with those who received a career intervention tending to score approximately a third (or more) of a standard deviation above individuals who did not receive an intervention. There are, however, some limitations with these meta-analytic reviews. First, the studies in the meta-analyses included interventions that ranged from one session to more systematic programs; however, the average number of sessions was 3.74 (Oliver and Spokane 1988) and 4.19 (Whiston et al. 1998). Hence, the effect sizes calculated in these studies did not include comprehensive career guidance programs. Further, Whiston et al. (2017) found a significant moderator effect for both number of sessions and hours of treatment, with larger effect sizes being associated with longer interventions.

Second, the studies included in these meta-analytic reviews were primarily conducted in the United States and, thus, the findings do not necessarily apply to career guidance programs in other countries. However, there is growing evidence of the effectiveness of career interventions internationally. For example, in an Italian sample of high school students, Di Fabio and Kenny (2010) demonstrated that an emotional intelligence training program can increase not only students' emotional intelligence, but also their career decidedness. Di Fabio and Maree (2012) examined a life design career counselling intervention with Italian entrepreneurs compared with a no-treatment control group and found that participants in the life design group reported decreased career decision-making difficulties and increased career decision-making self-efficacy. Akkermans et al. (2015) examined the effectiveness of a career development intervention for young Dutch employees compared to a business as usual control group and found an increase in career competence, self-efficacy, resilience against setbacks, career-related behaviours, perceived employability, and work engagement. Chien et al. (2006) also found that a 12-week metacognitive and planned happenstance career training course significantly increased career competencies compared to comparison and non-equivalent control groups for Taiwanese college students.

Although guidance services often vary depending on the country or location of the service provider, Watts and Sultana (2004) found commonalities among the career guidance policies from 37 different countries and concluded that there are some similarities across countries. They further argued that there is a growing base of positive empirical evidence that consists of immediate learning outcomes, intermediate behavioural changes and long-term outcomes, which are all of significant interest to policy-makers. Hartung (2005) argued that many nations are increasingly recognising the importance of career guidance programs in terms of enhancing the lives of their citizenry and improving the economy of the various nations. Watts and Sultana (2004), however, stressed that career guidance programs are most successful when the process is customised to the needs and cultural conditions of the country.

Which Guidance Modalities Are Effective?

In evaluating career guidance programs, it is important to examine the methods in which the programs are delivered. In examining the career guidance policies in 37 countries, Watts and Sultana (2004) found some convergence among policies but also variation in the methods in which career guidance is delivered. They found that services were provided in several formats, such as individually, group-based, face-to-face, or at a distance (e.g., help-lines and web-based services). Watts and Sultana (2004) also found a movement toward self-help approaches. This trend may be reinforced by the expanding number of internet-based vocational assessments and occupational information sites on the web (Galliot 2017). This trend toward self-help or counsellor-free career guidance is disturbing given the preponderance of evidence that Whiston et al. (2003) found regarding the ineffectiveness of counsellor-free career-free interventions. Whiston et al. (2003) used meta-analytic techniques to compare differing intervention modalities (e.g., individual career counselling, career classes) and found that interventions involving a counsellor were significantly more effective than those interventions that were counsellor-free. In particular, they found that the combination of computer system and counselling were more effective than allowing individuals to just use a computerised guidance system.

The Whiston et al. (2003) findings should not be construed that computer-assisted career decision-making system should not be used, for Gati et al. (2006) found with an Israeli sample that career counselling accompanied by a career-assisted decision-making system had long-term effects. These researchers found that clients who 6 years later were in an occupation that matched with suggestions provided by their computerised results were significantly more likely to be satisfied with their occupational choice than those who were working in an occupation that did not correspond to their earlier computerised results. McLaren (2013) studied the Computer-Assisted Career Guidance System (CACGS) and found that when it was paired with a face-to-face workshop component, it improved career decision-

making self-efficacy and outcome expectations strivings, as well as reduced career decision-making difficulties compared to a control group. Further, socioeconomic status significantly moderated the relationship between treatment condition and career decision-making self-efficacy, with individuals who reported lower SES benefiting more from the intervention.

Whiston (2002) concluded that the most effective modalities for providing career interventions were individual counselling and career classes. Brown and Ryan Krane (2000) found that there were five critical ingredients that should be included in any method of providing career interventions and these included: written exercises, individualised interpretations, occupational information, modelling, and attention to building support. Chiesa et al. (2016) found that a structured group career intervention based on the critical ingredients identified by Brown and Ryan Krane (2000) and Brown et al. (2003) successfully increased career decision-making self-efficacy and career exploration, but did not decrease career choice anxiety in Italian high school students.

Most recently, Whiston et al. (2017) examined treatment modality as a moderator of effect size in their meta-analysis and though it was not a significant moderator overall, some interesting results emerged. Specifically, group career counselling was the most frequently used modality in the studies included in the analysis and produced a moderate effect size of .59. Individual career counselling produced the largest effect size out of the modalities, .77, which is consistent with previous literature. Both group and individual career counselling were significantly different from computer alone career interventions which had the lowest effect size .07. These results suggest that career interventions have been moving in the direction of group career counselling, potentially in light of the Whiston et al. (2003) findings that computer-alone interventions are less effective than counsellor assisted interventions and the idea that group career counselling is more efficient than individual career counselling. However, the effect size calculations should be interpreted with caution because of the limited number of studies representing each treatment modality (Whiston et al., 2017).

Who Benefits from Career Guidance?

More than 30 years ago, Fretz (1981) made an eloquent plea for more research related to which clients benefit from what type of career counselling. Since then several researchers (Heppner and Heppner 2003; Sampson et al. 2013; Magnusson and Roest 2004) have echoed Fretz's (1981) call for research on client trait-by-treatment interactions, and it is still relevant today where research is needed related to effective interventions for clients at various ages, attributes, and cultural backgrounds. Guichard (2003), Killeen and White (2000), and Dennehy (2003) stressed the importance of guidance internationally being lifelong, comprehensive and accessible in a way that is meaningful for people in whatever economic, social,

cultural, educational, or personal situation they find themselves in. Clearly, as will be discussed later, more evaluation of career guidance programs that focus on what programs work with which groups of individuals needs to be completed and disseminated internationally.

Heppner and Heppner (2003) suggested that researchers examine differences in career intervention effectiveness for the three following kinds of career clients:

- (1) those who seem just to need additional occupational information and help with occupational exploration;
- (2) those whose career-choice problems are primarily anxiety related;
- and (3) more severely impaired clients who present with a constellation of problems revolving around anxiety, poor vocational identity development, high perceived need for occupational information, and low feelings of efficacy around their abilities to solve problems and make career decisions (p. 757).

McLaren (2013) also found that the level of specificity of career needs (i.e. seeking specific career-related clarification, information, and strategies vs. exploring unspecified career-related topics) was a significant moderator for the relationship between treatment condition and certain outcomes including career decision-making difficulties and academic major satisfaction. Specifically, the participants who reported specific career needs in line with the goals of the intervention had decreased career decision-making difficulties and improved academic major satisfaction when compared with participants with dissonant career needs.

Further, Sampson et al. (2013) posited that several variables may contribute to low readiness for effective use of career interventions such as personal characteristics and circumstances (e.g., acute negative thoughts, feelings, or external barriers); limited knowledge of self, options, and decision making; and limited or negative previous experience with career interventions. Ferrari et al. (2012) evaluated a structured 10-unit didactic intervention that sought to increase Italian high school students' future time perspective and career decidedness. They found that post-test students in the intervention experienced higher levels of hope, continuity, and career decidedness than those in the business as usual control group.

In terms of issues of race and ethnicity, Nichols (2009) found that the proportion of racial/ethnic minorities in a sample did not predict career intervention effectiveness and international studies were not significantly more effective than interventions that occurred in the United States; however, studies that reported racial/ethnic demographic information were more effective than those that did not report that data. Ali et al. (2017) developed and tested Project HOPE, a career intervention based on Social Cognitive Career Theory (SCCT; Lent et al. 1994) and Brown and Ryan Krane's (2000) critical ingredients with Latino and European American middle school students. They found that the intervention was associated with increases in math/science self-efficacy for both Latino and European American students, health science self-efficacy for European Americans, and health science career interests for Latinos.

Commonly Used Outcomes in Career Guidance Research

In Canada, Lalande et al. (2005) found that practitioners, employers and policy makers all agreed that assessment of impact of career guidance is important and current evaluation practices were inadequate. In terms of outcome measures used in career counselling or guidance research, researchers have often used measures of indecision or measures of career maturity (Whiston 2002) with measures of career maturity tending to be more sensitive to treatment effects. Brown and Ryan Krane (2000) also found large effect sizes associated with career interventions that were evaluated using measures of vocational identity. Congruent with Brown and Ryan Krane (2000), the Whiston et al. (2017) meta-analysis examined seven commonly used outcome measures: vocational identity, career maturity, career decidedness, career decision-making self-efficacy, perceived environmental support, perceived career barriers, and outcome expectations. Career decision-making self-efficacy was the most frequently utilized (in 32 studies) and had the largest effect size (.45); whereas, perceived career barriers was one of the least frequently used (in 3 studies) and had the smallest effect size (.13).

Recently, career intervention research seems to have broadened its scope in terms of the kinds of outcome measures being utilized. Emmerling and Cherniss (2003) have proposed that emotional intelligence may benefit introspective career exploration and Hammond et al. (2010) found that a measure of emotional intelligence improved a model of career indecision with African American college students. Measures of career satisfaction, life satisfaction, career adaptability, and subjective well-being, which are drawn from positive psychology and social constructivist approaches have been linked to more traditional career assessments and have also been recently used as outcomes (Verbruggen and Sels 2010; Rottinghaus et al. 2017; Celen-Demirtas 2017).

Lalande et al. (2005), however, found that policy makers were interested in client outcome, particularly as it relates to economic benefits and long-term effects. Reardon (1996) addressed the dearth of published studies in the United States related to the cost-effectiveness of career interventions. This trend was also evident in the United Kingdom, where Bysshe et al. (2002) found a lack of evidence to substantiate the economic benefits of career guidance due to insufficient coordination of research efforts. Hooley and Dodd (2015), however, argue that career guidance influences the individual and helps them to make choices, to build skills, and to strategize participation in the labour force. This in turn leads to a number of primary economic outcomes such as increased labour force participation and increased skills and knowledge. These primary economic outcomes contribute to secondary outcomes and all of these outcomes work together to contribute to broader macro-economic benefits. Hooley and Dodd pervasively assert that the economic benefits of career guidance justify the public investment in career guidance in England.

Increasing Evaluative Practices

In evaluation, Love and Russon (2004) contended that open evaluation practices that consider the setting and culture are more relevant than precise steps that may be applicable in one culture but not another. The following discussion is based on Whiston and Brecheisen's (2002) proposed six-step process for evaluating career counselling programs; however, we suggest that this model should serve as a foundation that readers from various locations can adapt to meet the needs of their context or culture (see Table 38.1). It should be noted the steps are designed to be sequential but they should not be interpreted as being prescriptive.

Identify the Focus of the Evaluation

The initial step in evaluating any career guidance program is determining what needs to be evaluated and what specific information is needed. This fundamental step is sometimes omitted because practitioners launch into an evaluation in order to meet a deadline or to respond to some external pressure (e.g., annual evaluations or reports to funding organisations). The fundamental purpose of evaluation is to gather information and it is important to consider what information is needed and why. There is no universal template for conducting an evaluation study of career guidance services, for the focus of career guidance may vary widely depending on the country in which the services are provided. In most evaluations, there needs to be a direct connection between the program goals and/or objectives and the evaluation. In this era of accountability, those involved in career guidance programs should ensure that the objectives of the program are measurable. In career guidance programs, developing program objectives simply means stating programmatic goals in quantifiable terms, such as determining the number of clients the program anticipates serving, identifying indicators that the program provides quality services, and specifying the expected outcomes of those career services. Reviewing of program

Table 38.1 Steps in program evaluation

Program evaluation
Step 1: Identify focus of evaluation
Step 2: Formulate the evaluation design and procedures
Step 3: Determine evaluation or outcome measures
Step 4: Gather program information
Step 5: Analyse and interpret the program information
Step 6: Use information gained from program evaluation to make decisions

goals and objectives can often assist in identifying the focus or central purpose of the evaluation. Furthermore, analysing program goals and objectives can often facilitate program enhancement by simply requiring individuals to reflect on processes and procedures of their guidance program. Some European countries are members of the European Lifelong Guidance Policy Network, which was established in 2007 with the aim of assisting member-countries and the European Commission in developing cooperation on lifelong guidance in both the education and employment sectors. As such, the European Lifelong Guidance Policy Network has developed a number of resources to guide countries in the provision of lifelong guidance and some of these resources can guide practitioners in the development of clear goals and objectives that can influence the focus of the evaluation.

In clarifying the focus of the evaluation, one of the initial factors an evaluator needs to consider is whether the evaluation needs to be *front-end*, *formative*, *implementation*, *progress* or *summative*. According to Nassar-McMillan and Conley (2011), front-end evaluations are the earliest form of information gathered, and may employ needs assessment and/or previous outcome evaluations to inform the selection of interventions or programs most likely to be effective. Formative evaluation includes both implementation and process evaluation and is used to determine how a program may be modified. Implementation evaluation involves examining the quality and consistency of delivering a program or intervention. It also involves documenting the replication or dissemination of effective programs or to provide information on how to improve ineffective interventions. Progress evaluation typically involves soliciting feedback from participants and other stakeholders and is used to determine whether an intervention or program is having the desired effect. Finally, summative evaluation is conducted at the end of the intervention or program and is used to determine the overall effectiveness of the program. Summative evaluation will answer questions related to whether the intervention or program has accomplished what it is designed to do, and it is designed to inform stakeholders and policy makers of the value of the program or intervention.

When planning and reporting evaluations, the American Evaluation Association (2004) suggests that evaluators should include relevant perspectives and interests from a full range of stakeholders. It is often useful in evaluating career guidance programs to seek information from funders, those providing the direct services, clerical staff that assists in program delivery, and a robust sampling of clients who have been the recipients of the services. Although Benkofske and Heppner (2008) contended that evaluators should gain information from stakeholders, they also suggested that evaluators not turn over the entire evaluation process to stakeholders as ultimately the evaluator is the one who bears responsibility for the evaluation protocol. Evaluation studies can quickly become overly complex and unwieldy if parameters are not set. Therefore, when evaluators begin designing the evaluation study, it is important that they retain a sense of clarity regarding the focus and purpose of the study.

Formulate the Evaluation Design and Procedures

The second step in Whiston and Brecheisen's (2002) evaluation procedures concerns selecting the evaluation design and methodologies (see Table 38.1). Fundamental to designing an evaluation study is the type of information desired and typically evaluating a career guidance program is more complex than simply selecting one outcome or criterion measure that indicates whether the program was successful. In certain situations, it will suffice to describe the program and summarise the outcome or evaluative information. Providing descriptive information about clients after they have completed the program can often provide useful information but it is difficult to attribute positive results directly to the career guidance program without a comparison group. For sake of illustration, let us assume a program is designed to assist unemployed individuals with job search skills and the program will be evaluated by determining the number of individuals who are employed 6 weeks after completing the program. It could be that a new employer has moved into the community and there was a hiring shortage and so, even if 95% of the participants were employed after participating in the guidance, it would be difficult to attribute those positive results to the career guidance program without comparison data. Comparison data that contrasts their employment status to others who have not completed the program often provide more compelling findings.

If an evaluator determines that comparison data would be desirable, then they need to consider whether an *intersubject* (variations across subjects that usually take the form of some group comparison) or *intrasubject* (variation within subjects that usually focuses on the temporal unfolding of variables within individual subjects) design is preferable. In intersubject designs, there needs to be a comparison group in which the evaluator will determine if those receiving the career interventions have better outcomes than a comparison group. Some evaluators of guidance programs may avoid intersubject designs because of the difficulties associated with not providing guidance services in order to have a traditional control group comparison. In outcome research, researchers often use a wait-list control group in order to address both ethical concerns and group equivalency issues. In a wait-list control group design, participants are randomly assigned to either the treatment or wait-list control group and after the treatment phase and the post-tests are administered, the treatment is made available to the wait-list control group (Heppner et al. 2008). The use of random assignment to either the treatment or the wait-list control group addresses many of the issues related to group equivalency. Furthermore, members of the wait-list control group do receive guidance services, thus diminishing the difficulties associated with not providing services to individuals in need of those services.

In some settings, however, a wait-list control group may not be a viable alternative. Another option is using intersubject designs which involve varying treatments so that knowledge can be gained concerning the effects of various career interventions. For example, a guidance program may want to investigate whether the use of a computerised career guidance program is worth the financial investment. In this case, they might compare the outcomes of individuals who used a computerised career guidance program as compared to those who received traditional services.

Examining group differences is not the only evaluation design available. Evaluators can also use intrasubject research designs, which typically focus on changes within each subject or participant. A common approach in intrasubject designs is to pretest individuals before they participate in the guidance program and then post-test them at the conclusion of the career guidance program. For example, comparing how many interviews the participants had 6 weeks before the program is compared to how many interviews they had in the 6 weeks following the guidance program. The problem with a pretest-posttest design is that, without a control group, it is impossible to rule out the possibility that client changes may be due to other factors.

An additional approach to intrasubject designs is to use a single-subject or single-case design. In counselling research, there has been increasing interest in using single-subject designs (Heppner et al. 2008). Although single-subject designs are not commonly used in evaluation studies, there are circumstances where gathering in-depth information on one individual can be useful. Single-subject designs can be either quantitative, qualitative, or a combination of methodologies and those who are interested are directed to Kazdin (2010) and O'Neill et al. (2010). Although single-subject designs are rarely conducted in the area of career guidance, an example of a study is Chauvin et al. (2011).

Another factor to consider in the design of an evaluation study is whether cost-effectiveness or cost-benefit information is needed. Specific information needs to be gathered if the evaluation study is going to include analyses of the relationship between the cost of the career development program and the effectiveness of the services and/or benefits to a specific organisation (e.g., agency or educational institution) or to society (e.g., reduction in state and federal spending). Specifically, the evaluator will need to gather information on the total cost of the career development program, which Royse et al. (2016) found should include costs of personnel, facilities, equipment and other expenses. Moreover, the design of the evaluation will need to include methods for gathering monetary data. As Hooley and Dodd (2015) documented, this is not an easy task; yet, they provide a compelling argument for the economic benefits of career guidance. Transforming outcome information into tangible benefits requires the evaluator to examine closely the services that were provided. Results of an evaluation study are meaningless if there is not a clear description of what services clients actually received and some documentation that they indeed received those services. Rossi et al. (2004) indicated that one of the reasons programs fail is that the treatment is unstandardised, uncontrolled, or varies across target populations. Sometimes evaluation results can reflect difficulties within a system where clients are receiving quite different services or, in some cases, less than optimal services. Yates (1996) suggested that very specific information about program procedures must be gathered in cost-benefit analyses in order to examine the relationship between the cost of the procedures and the benefits of the program. Examining the implementation of a program is similar to ensuring treatment integrity in psychotherapy research. In psychotherapy research, treatment manuals or supervision and training of those delivering the counselling services are some of the more common methods for ensuring that the counselling treatment is provided consistently and appropriately (Comer and Kendall 2013).

Determining Evaluation or Outcome Measures

The legitimate effect of a career guidance program cannot be determined without sound evaluative measures or procedures. The selection of appropriate measures is not an easy task and sometimes individuals will avoid evaluating a career program because they are unfamiliar with appropriate instruments or measures. Outcome research conducted over the last 50 years on the effectiveness of career interventions can assist evaluators in selecting reliable and valid measures. In terms of measuring outcome, the trend is to use more than one outcome measure and to gather information from more than one source (Comer and Kendall 2013).

Ogles (2013) designed an organisation scheme to assist evaluators in selecting multiple outcome assessments in psychotherapy that will be adapted to talk about selecting multiple outcome measures in career guidance. The five dimensions of this organisational scheme are *content*, *social level*, *source*, *technology*, and *time orientation*. Within each of the five dimensions are categories for the evaluator to consider in selecting outcome measures. The scheme is designed to encourage individuals to consider each of the five dimensions and to consider outcome measures that will provide diverse information. In an ideal world, career guidance practitioners would select instruments so that all of the categories in each of the domains were addressed. This goal is fairly unrealistic, as practical limitations (e.g., financial constraints, time limitations) will influence instrument selection. The organisational scheme, however, can be used to systematically consider diverse outcome measures that examine various facets of the vocational process and to avoid needless duplication of certain outcome categories.

The first domain in this organisational scheme is the *content dimension*, which includes the categories of behavioural, cognitive, and affective. In terms of behavioural measures are author-developed assessments of clients' performances in terms of mock interviewing, resume writing, or submitting job applications. Here the focus is on assessing clients' career behaviours. The Career Engagement Scale (Hirschi et al. 2014) measures the degree of engagement in proactive career behaviours is another instrument that would fall under the behavioural umbrella. Related to cognitive measures would be the Career Thoughts Inventory (Sampson et al. 1996), which measures decision making confusion, commitment anxiety, and external conflict. In terms of the content area of affective measures are those measures of sentiments such as the Career Adapt-Abilities Scale (CAAS, Savickas and Porfeli 2012), which measures concern, control, curiosity, and confidence. An advantage of the Career Adapt-Abilities Scale is that researchers from 13 countries collaborated in developing this scale and the metric invariance across the 13 countries was tested. Another measure of career adaptability is the Career Futures Inventory-Revised (Rottinghaus et al. 2012).

The second dimension in Ogles' (2013) outcome scheme is *social level* and involves intrapsychic, interpersonal, and social measures. Related to intrapsychic measures are measures of career certainty or career decidedness and would include measures such as the Career Decisions Difficulties Questionnaire (Gati et al. 1996),

Career Decision Scale (Osipow et al. 1987) and the Career Indecision Profile-65 (Hacker et al. 2013). The interpersonal area is more difficult to assess in career guidance as there are not many outcome measures that assess interpersonal constructs. One exception to this may be measures of perceived environmental support, which Whiston et al. (2017) found were used in three studies in their meta-analysis. In terms of social measures, one may consider measures of perceived career barriers. In our opinion, the most widely used measure of career barriers is the Career Barriers Inventory (Swanson et al. 1996).

As indicated earlier in counselling and psychotherapy outcome research, the trend is to measure change from multiple perspectives (Comier and Kendall 2013). Therefore, the third dimension in Ogles' (2013) scheme is the *source dimension*, which addresses who is making the assessment. The first category in this domain is client self-report and this includes most of the measures that are used in outcome assessment of career guidance. Unlike psychotherapy research which has a few measures of therapist ratings of the effectiveness of psychotherapy, career guidance has yet to develop a measure that involves clinician ratings of client outcome. This may be a worthy area of empirical inquiry. The same criticism can be made of the third category within the source domain; trained observers or judges. In psychotherapy research, one can find studies that incorporate the use of trained observers to evaluate the effectiveness of psychotherapy sessions; however, this procedure is not seen in the career guidance outcome literature. On the other hand, the fourth category in the source domain (i.e., institutional referents) is commonly used in the career guidance domain. For example, Hansen et al. (2017) investigated the effectiveness of career development courses on measures such as graduation rate, cumulative grade point averages, time to graduation, and course withdrawals.

In selecting career guidance outcome measures, evaluators may also want to consider Ogles' (2013) fourth dimension, which is the *technology dimension*. Some outcomes measures are more general or global, whereas others are more specific. The first category within the technology dimension is global and these measures typically include a range of outcomes. An example of a global measure is a quality of life measure such as the Quality of Life Inventory (Frisch 1994) or the Satisfaction with Life Scale (Diener et al. 1985). A more specific measure would be the Career Decision Profile (Jones 1989), which assesses the degree of career uncertainty. Another category in Ogles' dimension of technology is observation of which to our knowledge there are no career outcome measures that involve the observation of clients. The development of observational measures for activities such as teaching job interviewing skills may be an important contribution to the field. The last category in this dimension is status and involves clients' conditions such as being employed versus not being employed.

The final dimension in Ogles' (2013) scheme of outcome measures is the *time orientation* dimension, and it assesses whether the outcome measures a stable trait-like attribute versus a more unstable state-like attribute. Constructs such as career maturity are less stable and expected to change with interventions. It should be noted that Savickas and Porfeli (2011) have revised the Career Maturity Inventory (i.e., Form C). Another fluid attribute is outcome expectations, which rose to

prominence with the growing popularity of social cognitive career theory. As there are few career outcome measures appropriate for evaluating career guidance with children, a recently developed instrument, the Career Exploratory Outcome Expectation Scale (Oliveira et al. 2016) bears mentioning. Not only does this instrument measure outcome expectations with children, but it was also developed with the sophistication of item response theory.

Watts (2005) argued that the available evidence on the benefits of career guidance is not very comprehensive and we suggest collaboration among international scholars to develop comprehensive career guidance evaluation assessments that can be used internationally. The development of a battery of instruments that can be used internationally is a daunting task but it is undoubtedly essential to the continuance of career guidance programs in these times of accountability and restricted resources.

In conclusion, Ogles' (2013) classification scheme is designed to assist evaluators in considering the use of multiple measures from multiple perspectives. It does, however, assume that all of the evaluative measures are psychometrically sound, pertinent to the program being evaluated, and generalizable to participants from diverse backgrounds. It is particularly important that evaluators select evaluative measures that are appropriate for individuals in their specific career program. Whiston et al. (1998) found evidence of researchers using outcome measures that were not developmentally appropriate for the participants in the study.

Gathering Information

The fourth step in Whiston and Brecheisen (2002) proposed six-step process for evaluating career guidance programs is gathering evaluative information. Benkofske and Heppner (2008) contended that data collection can be rather straightforward with proper planning and preparation. As the previous steps emphasised, it is important to determine prior to gathering data what information is needed and the most appropriate methods for gathering that information (e.g., online surveys versus paper copies). The actual gathering of information or data can be an arduous task and problematic situations that arise during the collection of data can undermine the entire evaluative process, which, in turn, may result in negative consequences for the career guidance program (e.g., insufficient data to support ongoing funding). Benkofski and Heppner (2008) suggested piloting the data collection process in order to identify problems when there still is sufficient time to adjust the process. Piloting the data collection process will also identify problems, such as participants not understanding the instructions or survey questions; observation techniques that are too cumbersome; or difficulties in retrieving archival/institutional data (e.g., graduation rate, employment record).

Data Analyses and Interpretation

After the data are collected, the next step is to analyse the data and interpret the results (Whiston and Brecheisen 2002). Some practitioners may shy away from conducting an evaluation study because of their uneasiness with statistical analyses. In many situations, evaluators can rely on descriptive statistics (e.g., mean, standard deviation) or qualitative data analysis procedures that do not involve inferential statistics. In addition, many current statistical packages make data analysis relatively simple and user friendly. Individuals with limited training in using statistics may want to consult with an experienced researcher as statistical decisions are complex and involve issues related to statistical power, such as (a) the particular statistical test used; (b) the alpha level; (c) the expected directionality of the effect (d) the size of the effect; and (e) the number of participants (Heppner et al. 2008). Practitioners may also want to consider following the suggestions of some researchers (e.g., Henson 2006) and calculate effect sizes. An individual can easily calculate a Cohen's *d* effect size by subtracting the mean of the control group from the mean of the experimental group and dividing that by the pooled standard deviation of the two groups. Therefore, these effect sizes provide an indication of the magnitude of difference between program participants and non-participants on the outcome measures used. An example of a study that included effect sizes is Thrift et al. (2012), which assessed the effect sizes on the Career Thoughts Inventory (CTI) of Pacific Islanders who were assigned to a group who used the Career Thoughts Inventory workbook, to a group who wrote a research paper related to an occupation, or the control group. They found that the group who used the CTI workbook had an effect size of .60, which reflects that at post-test, the experimental group was over a half of a standard deviation below the pretest scores (lower scores are positive). Some of the meta-analytic studies discussed earlier (e.g., Whiston et al. 2017) combine these effect size calculations and readers may want to refer to that study for a further explanation of effect sizes.

Correlational and regression analyses can also provide insightful information, particularly related to the relationship between the costs and benefits of a program. For example, additional research related to the career guidance programs and money saved from changing educational programs, cost of replacing employees, and medical expenses related to job stress is needed. Practitioners that are not knowledgeable about interpreting correlational and regression analyses should seek assistance from researchers of career guidance or local statisticians.

It should be noted that data analysis does not need to be solely quantitative for as Guichard and Lenz (2005) discussed there is an emerging focus internationally on self-construction rather than on occupational choice. If the underpinning of the career guidance is constructivist, then the approach to data analysis should correspond to the philosophical foundation of the guidance interventions. Using a case study approach, Cardoso et al. (2016) combined typical measures of outcome and analysis of patterns of narrative innovation in Life Design Counselling. They found a gradual increase in the proportion of innovative conversations, which was in a

pattern similar to that observed in psychotherapy, and that the Life Design Counselling influenced the client's career certainty but not her career maturity.

Once the data are analysed, the crucial task of fully interpreting the results should begin. Once the results are analysed and interpreted, the evaluator should begin writing the results for the intended audience or pertinent stakeholders. Benkofske and Heppner (2008) suggested that all evaluation reports contain an executive summary and a list of recommendations that include the positive aspects of the program as well as the areas that may need improvement. Any report, however, needs to be geared to the potential audience(s) with an understanding of the "lens" the readers will use in reading the report. Gearing the report toward an audience does not mean that results are distorted or findings misrepresented, for accurate representation of the findings of an evaluation study must be consistent with ethical standards in the profession.

Using the Information

The last step in Whiston and Brecheisen's (2002) six-step process is a critical one that guidance professionals may sometimes overlook given large caseloads and numerous responsibilities. An evaluation should not stop after the final draft of the report has been written because the purpose of an evaluation study is to use the information generated. Evaluative reports sometimes are filed away and rarely seen by stakeholders or other professionals. The lack of systematic methods for disseminating evaluative information on career guidance programs results in the dearth of information that is available to document the effectiveness of career guidance programs and services. The accumulation of information internationally may contribute to more funds being dedicated internationally to career guidance programs and, thus, more individuals could be helped with quality career guidance.

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Chapter 39

Personal Welfare Through Career Guidance



James A. Athanasou  and Harsha N. Perera 

Abstract The emphasis in this chapter is on the fundamental intention of career guidance to ensure that *ceteris paribus* the individual maximises their lifelong career satisfaction. The initial focus in this chapter is a selective discourse on some key contemporary issues that plague career guidance services. These issues span the breadth of the field. There is scope for professional guidance services in a changing, complex, competitive and, at times, unforgiving labour market. Examples are provided of 17 imperfections of the world of work where guidance may assist. Without ignoring the need for social or governmental action, the chapter concludes with a personal manifesto for providing support at the individual level. It is asserted that the individual has a right to guidance in order to improve quality of life. A listing of 25 working principles of career guidance practice is introduced. The international role of career guidance is a prisoner of its past, but a common and continuing thread has been that it is a professional area that brings together knowledge of psychology, education, training and the labour market for the benefit of the individual.

Keywords Career guidance · Vocational guidance · Personal welfare · Work · Manifesto · Principles of guidance

In writing about the vocational aims of education almost 93 years ago, the educational philosopher John Dewey expressed the *zeitgeist* of that era and set out what is an abiding concern for many people:

Nothing is more tragic than failure to discover one's true business in life, or to find that one has drifted or been forced by circumstance into an uncongenial calling. A right occupation means simply that the aptitudes of a person are in adequate play, working with the minimum of friction and the maximum of satisfaction (Dewey 2012, p. 240).

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As is well-known, an attempt to address this issue came to be epitomised by vocational guidance. Parsons (1909) employed a rudimentary trait-factor methodology within a basic decision-making framework that still has utility across a wide range of settings such as vocational rehabilitation (Athanasou 2017, pp. 37–54). Today, we have at least 24 different career theories that are far more complex and address a wider range of career development issues than Parsons ever envisaged (Patton and McMahon 2006). These theories reflect changes in the workplace but also developments in our thinking about careers. Nevertheless, it still seems fair to say that a common element in these diverse approaches is that of personal welfare namely, to ensure that, at the very least, people are guided into careers that meet their aptitudes and needs (Duffy et al. 2016).

Personal welfare through career guidance is the theme of this concluding chapter and this is consistent with the 1948 sentiments of the *Universal declaration of human rights*:

1. Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.
2. Everyone, without any discrimination, has the right to equal pay for equal work.
3. Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection. (United Nations 1948, article 23)

Despite these ambitions, the world of work is not an occupational nirvana. It is not homogeneous in its nature or content or process throughout the world but is diverse and reflects the characteristics of the society in which it is located. In many aspects it is undergoing constant change (Hirschi 2018; Lent 2018) yet there is a discernible core. It is identified in the formal definition of the word “work” in the national Australian dictionary namely, work as “exertion directed to produce or accomplish something, labour, toil...” and in relation to employment “a job, especially that by which one earns a living” (Delbridge et al. 1991).

In developed western economies, we are seeing a disjointed nature of working that is being accompanied by complexity and inequality. Career guidance cannot operate oblivious to unemployment, underemployment, low pay, job insecurity, excessive working hours, job dissatisfaction or poor balance between work and family life (Watson et al. 2003). Perusal of academic research and numerous news sources has illustrated some key points about the reality of the world of work that should feature in individual career guidance (Athanasou 2009):

1. People die from work
2. Not all employers are nice
3. Working conditions are not always good
4. People can be replaced by machines
5. Parts of the workforce are shrinking
6. The pay can be little and sometimes workers are underpaid
7. Skill is not always rewarded
8. Executives, CEOs make the most money
9. Families have few savings

10. Not even other workers are your friend
11. Work-life balance can be tough
12. Part-time and temporary work is increasing
13. Careers include exploitation (slavery, child labour)
14. Not all careers are ethical or moral
15. The labour market is highly competitive
16. There is discrimination in the labour market
17. Power and privilege affect careers.

Work has become all-consuming and career guidance has aided or abetted what Tilgher (1977) described in the 1930s as “the idea of work for its own sake—work for the sake of work...” (p. 71). This all-consuming spirit was epitomised in the classic film *Powaqattsi* (1988) which depicted work throughout the world using visual images, the singing of children and haunting music without any dialogue. The *qatsi* is from a Hopi word meaning “parasitic way of life” or “life in transition”. As part of an international handbook, it is appropriate to note this Western spirit is consuming Oceania, Asia, India, Africa, the Middle East and South America. Traditional ways of life are being overturned and the soul of cultures (spiritual worship, traditions, craftsmanship, creativity) are being diluted if not destroyed. The negative effect of modern work at the level of the individual on one’s beauty, human endeavour or spirituality can be destroyed by careers, or the *Powaqa* (the negative sorcerer who lives at the expense of others). For all the good that career guidance has achieved, rarely has it considered the human soul.

In this closing chapter, the topic of work could also be examined in the future from other diverse perspectives. Without prolonging the discussion, four key issues are raised. Firstly, there is merit in career guidance providing realistic services to those most disadvantaged by (a) turning its attention to other imperfections in the world of work amidst the informal labour market as well as the changing formal workplace. Next, career guidance research might consider (b) the implications of an age of accelerating digital transformation or automation of processes, and their impact on the roles of practitioners in helping people to identify suitable learning and training needs or to participate adequately in the changing economy as well as exploring newer forms of guidance provision, such as online provisions, computer-assisted provision, web-based self-help based on adaptive algorithms. Subsequently, career guidance research might better (c) integrate theories that are helpful for practitioners and provide a theoretical stance that has regard for cultures, and traditions. Further there is (d) a social need for a career guidance that accommodates appropriately the work-based experiences of people on the “lower rungs of the social-position ladder” (Peel 2003), which ties guidance through social advocacy to the public policy arena. The limitations of space and time preclude further discussion of potential perspectives for the future and no claim is made that the topic of contemporary issues in career guidance is complete.

Fortunately, most of those involved in providing career guidance services are in agreement with the broad thrust of a welfare perspective because they are people-oriented. From the outset, the abiding concern of career guidance was to help others

and providing vocational guidance is one way of achieving this goal. Based on some 43 years of clinical practice in vocational guidance and rehabilitation that has included management of a statewide network, the first author attempts to map some individual and subjective issues that might lead to a provisional manifesto for career guidance.

A Subjective Manifesto for Career Guidance Services

In this closing section, 25 principles for career guidance are listed for consideration. These principles are not new—they originated in large part from the social justice philosophy of Beatrice Wright, a social psychologist who worked in the area of disability. At a time when disability was viewed quite differently and when people with disabilities were relegated to the margins of society, she set out 20 basic principles for psychologists to assist people in the second edition of *Physical disability: A psychosocial approach* (1983, pp. xi–xvii). Many of her principles are timeless and apply across the spectrum of all social and psychological services. They centre upon freedom, respect and equality. They were adopted unashamedly by the first author as a template for vocational services. With apologies then to Wright, a manifesto of some principles for guidance are submitted for future consideration:

Foundations

1. A foundation of career guidance is concern for the welfare of the individual;
2. Each person has some callings in life;

Aspects

3. Every aspect of career guidance has a psychological aspect;
4. Every aspect of career guidance has an educational aspect;
5. Every aspect of career guidance has a social aspect;
6. Every aspect of guidance has a moral or ethical dimension;
7. Existential dilemmas are at the base of career problems;
8. Career problems are influenced by environmental circumstances;

Career Guidance

9. Career guidance is built upon mutual trust and respect;
10. Career guidance is always personal and confidential;
11. Career guidance is non-judgemental and based on unconditional positive regard;
12. Career guidance provides encouragement through an abiding optimism;
13. Career guidance respects a person's culture, traditions, beliefs or values;
14. Career guidance has regard for the person's values, interests and abilities as well as their level of career development;
15. Ipsative assessment of values or interests is preferred;
16. Career guidance explores the strengths or assets of the person;
17. Criterion-referenced assessment of occupational abilities is preferred;

Services

18. Career guidance services are varied to suit the unique situation of each person;
19. Career services are educational, vocational, social advocates for people;
20. Clients are entitled to information concerning occupations, earnings, educational pathways, legislation, job requirements or labour market information in a way that is meaningful to them;
21. Career guidance services are incomplete without a clearly defined educational, vocational, social or personal placement;
22. Career development is an ongoing process and career guidance may be required at different stages in life;

Principles

23. Generalisation of results from group studies yields only probability statements;
24. Career behaviours are lawful at the level of the individual;

Caveats

25. It is a myth and superstition to consider that career choice is sufficient for ultimate satisfaction in one's life.

Conclusion

It was not the purpose of this concluding chapter to merely catalogue the content of the previous chapters in this second edition of the *International Handbook of Career Guidance* nor to make prognostications for the discipline of career guidance. Our field is well-served already by recommendations concerning career guidance across the world (Hansen 2006) or the promulgation of professional standards for career development practitioners such as those of the Career Industry Council of Australia (2019).

Instead the emphasis has firstly been on addressing some contemporary concerns and submitting a manifesto for consideration. As such, this chapter might be read and contrasted with the concluding chapter from the first edition (Athanasou and Van Esbroeck 2008). The focus on this occasion has been a selective discourse on some key intentions, beliefs, opinions or motives related to the theory and practice of vocational guidance. The goal has been to increase personal welfare through career guidance. The agenda that has been outlined is a tall order, somewhat controversial, but also a blueprint that could in part be tested. One trusts that the content of the discussion has provided some direction for the future and the next edition of the Handbook. In any event, a valuable starting point is to consider the original purpose of career guidance.

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Correction to: Living Systems Theory: Using a Person-in-Context Behaviour Episode Unit of Analysis in Career Guidance Research and Practice



Fred W. Vondracek, Erik J. Porfeli, and Donald H. Ford

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The corrected chapter title is as follows.

“Living Systems Theory: Using a Person-in-Context Behaviour Episode Unit of Analysis in Career Guidance Research and Practice”

This has now been corrected in the table of contents and in the chapter opening page.

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C1

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