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THE PALGRAVE HANDBOOK OF MULTIDISCIPLINARY PERSPECTIVES ON ENTREPRENEURSHIP

Edited by
Romeo V. Turcan and Norman M. Fraser



The Palgrave Handbook of Multidisciplinary Perspectives on Entrepreneurship

“This Handbook is an excellent addition to literature. With a diverse range of authors and research perspectives, the Handbook captures the rich variety of debate and thought within the field. Together, the different contributions highlight the maturity of this field and the research therein, as well as its global nature. It is a joy to read, and it really makes you think.”

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—Siri Terjesen, *Professor, American University & Norwegian School of Economics*

Romeo V. Turcan • Norman M. Fraser
Editors

The Palgrave Handbook of Multidisciplinary Perspectives on Entrepreneurship

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To Our Families

Preface

In this handbook, we took a novel approach to advance a research field. Rather than following a classical approach adopted in handbooks, that is, taking stock of a research field and identifying ways to advance it based on the findings emerged from the extant reviewed knowledge, we instead brought phenomena, theories, and concepts from multiple disciplines, perspectives aiming to explore how these can advance the research field of interest in years to come. Following this approach, we have invited original contributions from the authors—academics, practitioners, policymakers—who are experts in their own fields, to provide state-of-the-art insights from their own disciplines and explore how these insights can inform current, and, equally important, future developments of the *entrepreneurship* field. We have received twenty-two chapters on a wide range of perspectives, such as neuroscience, technology, education, law, transmedia, philosophy, and theology.

This handbook is the first to collect original papers on multiple perspectives employing the novel approach described above all aimed at discovering new, fresh inter-, cross-, and multi-disciplinary ideas, concepts, theories, and state-of-the-art insights to advance the entrepreneurship field: generate new areas for research, new theories and concepts, and new questions for policy debates. It is not, however, the purpose of the handbook to consider all possible perspectives that could inform and enhance entrepreneurship research domain. Rather, we consider the collection of original papers in the handbook as a catalyst for an inter-, cross-, and multi-disciplinary dialogue between myriad of perspectives from humanities, social sciences, natural sciences, medical sciences, and technology and production sciences and entrepreneurship.

Aalborg, Denmark

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We acknowledge the financial and administrative support received from the Department of Business and Management of Aalborg University in Denmark. This includes supporting a workshop at Aalborg University that brought most of the contributors together to present own ideas and discuss the approach taken to develop the handbook.

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Part I

Introduction



1

Multi-disciplinary Perspectives on Entrepreneurship

Romeo V. Turcan and Norman M. Fraser

This handbook is the first attempt to discuss and advance entrepreneurship field from multi-disciplinary perspectives. The idea for the handbook has arisen out of questions we were interested in pursuing, namely what is going on in a range of other fields, such as neuroscience, technology, education, law, transmedia, philosophy, and theology, and how these fields may inform current, and, equally important, future developments of the entrepreneurship field. Classically, handbooks on entrepreneurship have adopted a traditional approach, namely taking stock of the entrepreneurship field and identifying ways to advance it based on the findings emerged from the review of the extant entrepreneurship literature. In such handbooks, classical questions entrepreneurship scholars pursue are what is going on in the entrepreneurship field, what are the gaps, and what future research directions could be identified.

This handbook is the first to collect original chapters on multiple perspectives employing the novel approach described earlier all aimed at discovering new, fresh inter-, cross-, and multi-disciplinary ideas, concepts, theories, and insights to advance the entrepreneurship field in the years to come. We have invited original contributions from the authors—academics, practitioners, policymakers—who are experts in their own fields, to provide state-of-the-art

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insights from their own disciplines and explore how these insights might help generate new theories and concepts, new questions for policy debates, as well as new areas for entrepreneurship research.

It is not, however, the purpose of the handbook to consider all possible perspectives that could inform and enhance entrepreneurship research domain. Rather, we consider the collection of original chapters in this handbook as a catalyst for an inter-, cross-, and multi-disciplinary dialogue between myriad of perspectives from humanities, social sciences, natural sciences, medical sciences, and technology and production sciences, and entrepreneurship.

Following the approach discussed earlier, we have structured the handbook in four major sections: Micro, Meso, Macro, and Meta, and received twenty-two original, state-of-the-art contributions from scholars worldwide. In the Micro section, there are four chapters on psychology, cognitive neuroscience, framing, and creativity perspectives on entrepreneurship. In Meso section, there are six chapters on business model, organizational, family, technology development, process, and exit perspectives on entrepreneurship. In Macro section, there are seven chapters on national system, business systems, education, international law, transmedia, migration, and ecosystems perspectives on entrepreneurship. In Meta section, there are five chapters on human systems, sociology of knowledge, ethics, theological and philosophical perspectives on entrepreneurship.

Micro-level

In their chapter ‘Psychology Perspective on Entrepreneurship’, Annemarie Østergaard, Susana C. Santos, and Sílvia Fernandes Costa suggest advancing entrepreneurship research through the lenses of well-being theories by focusing on studying the quality of life of entrepreneurs. These authors maintain that entrepreneurship is increasingly perceived as a lifestyle and underscore the importance of understanding how entrepreneurial activities influence and are influenced by the entrepreneurs’ well-being. Building on the eudaimonic and hedonic dimensions of well-being, Østergaard et al. put forward a general framework to inspire future research and practice in entrepreneurship grounded on the psychological theory of well-being. According to Østergaard et al. integrating theories of well-being from psychology into entrepreneurship research is necessary to understand the impact of entrepreneurship on individuals’ mental health, promote quality of life patterns, understand the motivations underlying entrepreneurial behavior, and further understanding

of how entrepreneurs change their environment, discover opportunities, and advance societies in innovative ways.

In 'Cognitive Neuroscience Perspective on Entrepreneurship', Jeanne S. Bentzen explores how cognitive neuroscience and cognitive neuropsychology can contribute to the development of the field of entrepreneurship and specifically the understanding of what influences an individual's propensity to become an entrepreneur. Bentzen builds on research in cognitive neuroscience on autobiographical memories, defined as memories of past events from one's own life, and their role in decision-making, as an interesting perspective with potential for developing the neuroentrepreneurship approach. She maintains that autobiographical memories are used not only to recall past events but also to imagine, simulate, and predict future events. Bentzen also discusses methodological challenges in studying autobiographical memories, and identifies interesting future research directions in memory-related areas in cognitive neuroscience, for example, in areas such as priming, procedural learning, and making of an entrepreneur.

In their chapter 'Framing Perspective on Entrepreneurship', Ade Mabogunje, Poul Kyvsgaard Hansen, and Pekka Berg introduce framing as the ability to capture a problem in a multi-disciplinary frame, enabling the involved people to explore and communicate the current state of a problem. Mabogunje et al. argue that verbal or visual expressions of the perception of a given problem or opportunity give rise to uncertainties that tend to persist. Their chapter is centered around a proposition that views the limitations of framing the problems and opportunities as a significant barrier when it comes to handling or dealing with uncertainties. As entrepreneurial processes imply ambiguity and complexity, they necessitate multiple framing processes both to explore and to communicate findings and dilemmas in a multi-disciplinary frame that does combine both linguistic and nonlinguistic elements. Mabogunje et al. suggest a number of enablers such as framing and reframing, improvisation and intuition, metaphors, and mixed medias aimed at enhancing the ability to express the deeper meaning behind specific words, symbols, or physical models.

The chapter 'Creativity Perspective on Entrepreneurship' by Chaoying Tang, Christian Byrge, and Jizhong Zhou discusses the role of creativity training for entrepreneurship education and matters of concern in integrating creativity training in entrepreneurship education. It defines creativity in terms of the ability and belief to produce and elaborate diversified and original ideas and identifies a number of creativity training perspectives to help entrepreneurship education gain a stronger focus on creative thinking skills and the

development hereof. Tang et al. view creativity as a key competency of entrepreneurship being closely related to the abilities to recognize commercial opportunities, generate new business models, and build the skills to act upon them. They suggest exploring the relation between creativity and entrepreneurship from the perspectives of goal and process, characteristics, competency, and entrepreneurial intention. To successfully integrate creativity into entrepreneurship education, program designers should pay attention to a number of issues and concerns, such as the advancement of domain-relevant skills, creativity-relevant skills, task motivation, domain-specific or domain general creativity training, and teaching and evaluation methods.

Meso-level

In their chapter ‘Business Model Perspective on Entrepreneurship’, Morten Lund and Christian Nielsen discuss the qualities of business model thinking and how this mind-set assists the entrepreneur in the process of creating a new venture across its various phases. Based on their empirical work with entrepreneurial processes, linking the process of configuring business models with business opportunities, Lund and Nielsen identified twelve business modeling variables and linked them to a start-up process to illustrate their relation to entrepreneurial processes. Lund and Nielsen present and discuss these variables, describing how they could be executed, as well as identify tools and processes that could be employed to execute these variables. These authors further propose a conceptual process model for the creation of original and useful business models through the basic concept of an entrepreneurial process. This process model consists of eight phases, depicting the necessary business modeling skills for each phase; it is a continuous circular process in which not all business modeling mechanisms are equally relevant at all stages of a start-up process.

In *Organizational Perspective on Entrepreneurship*, Pamela Nowell and Bram Timmermans set to investigate to what extent existing definitions of team-based entrepreneurship fit emergent, uncertain context of entrepreneurship and relate to the perception of actual entrepreneurial teams. These authors argue that relational characteristics such as rich and frequent interaction, interdependence, commitment, and shared social identity are crucial when conceptualizing, defining, and operationalizing ‘the team’ in the emergent, uncertain context of new venture creation. What ‘the team’ is, its conceptualization, boundaries, and definitional understanding, as well as whom we categorize as team members are examples of the questions that Nowell and Timmermans address in their chapter. Emergent findings demonstrate that

members who are not necessarily part of the core of founders and owners are often classified as team members, and in addition to entry and exit, team member mobility includes movement within the organization in terms of core, operational, and supportive tiers. The authors call for a more inclusive, dynamic, and relational understanding of the team within the context of entrepreneurship.

In their chapter 'Family Perspective on Entrepreneurship', Allan Discua Cruz and Rodrigo Basco delve into the family perspective on entrepreneurship, which gravitates around three different yet interconnected research fields: family, entrepreneurship, and family business. Cruz and Basco provide from a holistic perspective a nuanced understanding of the effect of the family on the entrepreneurial dynamics that lead to the creation of new firms and the development of existing firms. The authors highlight three schools of thought: entrepreneurship by families, embedded family entrepreneurship, and entrepreneurship across generations, which bring forward the complex interaction among family, entrepreneurship, and established family businesses. Cruz and Basco employ these schools of thought to explore and map current knowledge on the effect of family on entrepreneurship through three different levels: individual, group, and firm levels. By considering the inextricable connection of family and family business literature with entrepreneurship, the authors highlight previous and novel studies, interpret existing findings, and suggest a future research roadmap.

The chapter 'Technology Development Perspective on Entrepreneurship' by Poul Kyvsgaard Hansen and Ole Madsen sets to understand the nature of technology development in an entrepreneurial project perspective as well as how technology development activities affect other essential activities in entrepreneurial projects. Arguing that the fundamental competency of entrepreneurs is their ability to understand, synthesize, and apply principles that govern the creation of new technologies that ultimately result in new products, Hansen and Madsen introduce technology development as an essential element in an entrepreneurial project perspective. The maturity and the state of performance of some technologies might provide a bottleneck in achieving an overall performance that can justify a realizable solution. However, as these authors maintain, technology in its purest sense is more often not the key to understand a breakthrough of a given entrepreneurial innovation: it is the breakthrough that also involves the meaning of the context wherein the technology plays a central role. This meaning is more likely to be identified and communicated when the technology is seen in the perspective of a value chain. Hansen and Madsen suggest that by seeing technology development in a value-chain perspective it is possible to monitor progress and to evaluate the effectiveness of undertaken entrepreneurial activities.

In their chapter 'Process Perspective on Entrepreneurship', Frank Gertsen, Astrid H. Lassen, Louise Møller Haase, and Suna L. Nielsen elaborate on renewing of businesses by means of entrepreneurial processes seen through the lenses of three discipline-areas: entrepreneurship, design, and innovation management. Gertsen et al. start with the proposition that the essential properties of development processes within the three areas of innovation, design, and entrepreneurship have converged during recent decades. Based on a review of the three areas, Gertsen et al. conclude that indeed the development of processes within the three areas has led to a seeming convergence in the understanding of processes. However, it appears that the development may have happened more or less independently; although some similarities between the three disciplines can be identified, figuratively, the development may have followed different roads leading to the same intersection. Gertsen et al. identify similarities and opportunities for cross-fertilizations and conclude that further comparing and contrasting may be beneficial to advance learning in all three fields.

In their chapter 'Exit Perspective on Entrepreneurship', Kristian Nielsen and Saras D. Sarasvathy, building on a general perspective on exit, including important concepts and ideas not specific to the entrepreneurship domain, develop a taxonomy of entrepreneurial exit and discuss when entrepreneurial exit can be characterized as a failure, whether from the viewpoint of the entrepreneurs, policymakers, or investors, outlining potential conflicts between the interests of the entrepreneur and society. In addition to pointing out interesting conflicts when viewed from these different perspectives, Nielsen and Sarasvathy argue that exit needs to be understood dynamically and develop a dynamic framework for studying entrepreneurial exit, highlighting ideas for future research on how entry into entrepreneurship, entrepreneurial experience, and the post-exit environment may interplay in those dynamics. Consequences for the post-exit career and life course are introduced with specific examples of promising avenues for future research on this new and important topic in entrepreneurship.

Macro-level

The chapter 'National System Perspective on Entrepreneurship' by Jesper Lindgaard Christensen takes stock of national system perspectives on entrepreneurship including both the original formulation and recent revitalizations of the concept, and discusses whether the National Systems of Entrepreneurship literature is developing in a fruitful manner. Although this literature estab-

lished metrics that potentially can bring research forward toward a holistic understanding of the entrepreneurship process, Christensen argues that there is still a need to develop the operationalization of the theoretical base for a better assessment of the relevant metrics for entrepreneurship measurement. He maintains that the functionalist approach to innovation system analyses is better suited to bridge the theoretical foundation and the relevant empirics. Christensen also suggests that more attention should be paid to the implications for empirical analyses due to the fact that entrepreneurship is a process and that solely focusing on the output metrics of entrepreneurship renders analyses that cannot capture the full picture. Implications for renewed theoretical understanding, entrepreneurship measurement, teaching, and policy are put forward.

In their chapter 'Business Systems Perspective on Entrepreneurship', Mohammad B. Rana and Matthew M. C. Allen focus on a relatively neglected research area: how business systems theory can help explain entrepreneurship. Specifically, Rana and Allen employ business systems theory to understand: why a particular business model is developed; why entrepreneurs tend to make a particular type of decision, in a particular way, for a particular context; why firms or new venture structures, strategies, and growth trajectory follow a particular path dependency in a particular institutional context; while complementarity and/or lack of complementarity present different types of opportunities, challenges, and growth patterns for new ventures or new industries in a society. The authors provide an overview of the business systems theory framework and then illustrate how it can help to explain entrepreneurial decision-making, motivation, venture/industry creation, rationales behind new business model/venture development, social entrepreneurship, diaspora entrepreneurship, and above all institutional entrepreneurship in national and comparative institutional contexts.

In his chapter 'Education Policy Perspective on Entrepreneurship', John E. Reilly, based on a brief review of some of the many EU and European Higher Education Area policy statements relating to higher education, highlights the growing emphasis on entrepreneurship education and the increasing volume of the call to develop entrepreneurial competences for all graduates: first, second, and third cycles. According to Reilly, it is difficult to avoid being somewhat cynical about this. While the tone and phrasing of the Bologna communications is measured and calm, there is a sense that ministers and their advisers are desperate to find a solution to their current economic and consequent political and social woes and in doing so are losing sight of both the limits to what higher educational institutions may be able to achieve without increased resources and more fundamentally the imperative to ensure a

higher level of achievement in core subject and generic competences, without which entrepreneurship education would be hollow and have an 'emperor's clothes' quality. Reilly explores these issues and challenges in this chapter.

The chapter 'International Law Perspective on Entrepreneurship' by Alex Fomcenco and Sebastiano Garufi points out that entrepreneurship, as a concept, is not dealt with in international law. Fomcenco and Garufi note that traditionally the law is presumed to be closely connected to an identified territory where a state has the supreme right to exercise its jurisdiction. On the contrary, states often work together toward the achievement of common goals or, alternatively, cooperate toward the achievement of different goals but where those goals are achievable by means of collaboration. International entrepreneurs find themselves at the crossroad of these jurisdictions and are challenged by (sometimes) conflicting sets of rules. In this chapter, the authors center entrepreneurship in the context of international law, while simultaneously call upon further research of the issues raised here, potentially leading to the identification of feasible legislative solutions to the myriad of issues that entrepreneurs and investors with international activities are facing.

The chapter 'Transmedia Perspective on Entrepreneurship' by Nikhilesh Dholakia, Ian Reyes, and Finola Kerrigan introduces the transmedia perspective on entrepreneurship. Transmedia worlds have been disrupting the media since the 1990s. Dholakia et al.'s chapter positions this disruption within wider discussions of media fragmentation, increasing audience activity and new storytelling modalities within organizations. In outlining the origins of transmedia businesses, the authors draw parallels between transmedia businesses and entrepreneurship. They connect the development of transmedia worlds to wider discussions of entrepreneurship in the film and media industries, in which technological developments constantly influence practice. Dholakia et al. draw on socioeconomic and cultural theories to present an analysis of how transmedia growth would impact entrepreneurship, innovation, creative economies, and the trajectories of established media firms and brand owners. The authors offer transmedia worlds as possible antidotes to declining rates of entrepreneurship in the US, through highlighting the characteristics and possibilities of transmedia worlds.

In their chapter 'Migration Perspective on Entrepreneurship', Maria Elo and Per Servais view migration as a form of globalization that influences new venture creation, internationalization, and the overall economic/entrepreneurial landscape. These global flows of people shift human capital, entrepreneurial ideas, and activities across places, but little is known about the interconnectedness of migratory and entrepreneurial dynamics. Elo and Servais argue that theoretical lenses, such as migration theories, epidemic

dynamics, gravity laws, and bandwagon effects, among other explanatory models, have not really diffused into explaining entrepreneurship. Herein, the authors broaden the view and address migration dynamics, implanting entrepreneurs into new and between contexts, and discuss the types of entrepreneurs and businesses ‘in dispersion’. Elo and Servais advance the understanding of the intertwined nature of these two dynamics and contribute to the analytical clarity of the terminology by employing the idea of topology.

The chapter ‘Ecosystems Perspective on Entrepreneurship’ by Petri Ahokangas, Håkan Boter, and Marika Iivari aims to address larger contextual and interaction-based issues in framing, developing, and supporting entrepreneurial activity and processes. With strong roots in ecology, innovation, sociology, strategy, and regional/cluster research, the entrepreneurial ecosystem literature has provided new, fresh insight into entrepreneurship research. In this context, Ahokangas et al. provide an overview and critical discussion on key issues of research on entrepreneurial ecosystems, their characteristics and definitions. The authors pursue a number of questions, for example, how entrepreneurial ecosystems differ from other contextual concepts such as networks and clusters; what is required to create, foster, support, and orchestrate entrepreneurial resource base, potential, activity, start-ups/spin-offs, and entire entrepreneurial ecosystems in practice; how entrepreneurial ecosystems evolve; and what is the future of entrepreneurial ecosystems.

Meta-level

In his chapter ‘Human Systems Perspective on Entrepreneurship’, Barrett W. Horne drawing upon the multifaceted lens of organizational development theory and practice examines the relationship between the human system and the entrepreneur of which they are a part. Horne pays particular attention to the implications of human systems as complex adaptive systems. He argues that the ultimate success of an entrepreneur is tied to their ability to work effectively and productively with, and within, complex adaptive human systems. Precisely because human systems are complex, there are no recipes or formulae that can ensure desired outcomes. But, as Horne maintains organizational development theory provides insights and practical tools for constructively and wisely navigating complex human systems. The author explores some of the tools and insights with respect to their relevance and value for entrepreneurs and the advancement of the entrepreneurship field.

In his chapter ‘Sociology of Knowledge Perspective on Entrepreneurship’, Romeo V. Turcan aims to address one of the enduring questions in sociology

of knowledge: how is it possible that subjective meanings become objective facticities? Turcan adopts this question to understand the entrepreneurship phenomenon, and, more specifically, to understand how new business or venture ideas and new sectors or industries (as subjective meanings) are legitimated and institutionalized (become socially established as reality). He builds on Berger and Luckmann's *Treatise in the Sociology of Knowledge* and suggests an alternative order objectivation of meaning to understand the entrepreneurship phenomenon. Specifically, Turcan suggests considering legitimation as a first-order objectivation of meaning, whereas institutionalization constitutes a second-order objectivation of meaning when researching entrepreneurship. For this purpose, Turcan introduces the legitimation typology to frame the discussion around the process of creation, legitimation, and institutionalization of newness. He concludes the chapter by proposing a grand theory of legitimation.

In 'Ethics Perspective on Entrepreneurship', Ann Starbæk Bager, Marita Svane, and Kenneth Mølbjerg Jørgensen, based upon the writings of Arendt, Butler, and Bakhtin, propose a conceptual framework for understanding ethics in relation to entrepreneurship. The concepts of precarity, action, answerability, and space of appearance are used to conceptualize challenges and possibilities, as well as to problematize current neoliberal discourses concerning entrepreneurship. The governing condition of entrepreneurship is identified as precarity, which is described as a situation of insecurity, uncertainty, and exposure to exclusion from doing business. Bager et al. suggest that the entrepreneurial ethics framework the authors propose is useful in two ways. First, it seeks to provide some signposts within which the question of entrepreneurial ethics can be located. Second, it is an alternative way of viewing ethics from the dominant neoliberal ethos; this is an ethics of answerability, action, and pluralism. Through their framework, the authors put the spotlight on what an ethical act is in terms of how it connects to the world but also the space of ethics and what that means in relation to making entrepreneurial ethics more likely.

In their chapter 'Theological Perspective on Entrepreneurship', Kristin Falck Saghaug and George Pattison unfold a theological understanding of the moment as revelatory in order to provide a richer understanding of the entrepreneur as a human being who, in seizing an opportunity, creates something new, as he or she balances between ethical and economic demands in pursuit of meaning. In this innovation process, former moments of passion (in the sense of suffering in the entrepreneur's life) seem to influence the current process with passion as love. In their theoretical analysis, Saghaug and Pattison include a philosophical/theological perspective from one of the most influen-

tial theologians in the last century, the German-American philosophical theologian Paul Tillich, as well as his sources of inspiration: Heidegger and Kierkegaard. The authors further contribute with what the above theological perspective could imply for future ways of addressing entrepreneurship by acknowledging the moment as the center from which the very understanding and innovation of value begins.

The chapter 'Philosophical Perspective on Entrepreneurship' by Michael Fast discusses, from a phenomenological perspective, some thoughts on how we can understand the entrepreneur as being and how s/he is situated in his/her everyday life. The focus on Being means to understand the process of the entrepreneurs defining of and acting in his or her Lifeworld. According to Fast, what is involved in the being and how the entrepreneur is situated, is seen in the experiences of the entrepreneur and his/her project. The author further maintains that this is a discussion of consciousness, and the dialectical process in thinking and acting in everyday life. What seems as important issues in the being is the dialectics of everyday life, and to understand the movements in experiences of the entrepreneur and his project. Fast concludes by suggesting employing contradictions as part of everyday life to understand the movement of entrepreneur project and eventually the entrepreneur him or herself.

Part II

Micro Level



2

Psychological Perspective on Entrepreneurship

Annemarie Østergaard, Susana C. Santos,
and Sílvia Fernandes Costa

Introduction

Psychology is a mature field that has informed and contributed to different domains of science, such as management, organizational behavior, marketing, and entrepreneurship. In this chapter, we review how the different perspectives of psychology have contributed to understanding and explaining the foundation of individual behavior and how this affects society. Individuals act within societies, which constitute the context where individuals demonstrate their motivations, attitudes, and behaviors. Oftentimes, contextual idiosyncrasies and unique individual characteristics, skills, motivations, and cognitions lead people to imagine, plan, and create solutions to solve problems and challenges in society. One of the ways individuals improve and advance progress in their

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societies is through entrepreneurship: discovering or creating opportunities to solve problems. Entrepreneurship is an intentional behavior, which highly depends on the abilities of individuals (Krueger 2007). Therefore, relying on psychological theory to explain entrepreneurial behavior is extremely important, as entrepreneurship is primarily dependent on human action.

Psychology has contributed to the explanation of entrepreneurial behavior. As entrepreneurship transitioned from a purely economic field to focus more and more on individuals' behavior, psychology has contributed to the addressing of critical questions in the field (Fayolle et al. 2005). For example, trait theory has contributed to the answering of the question "who is an entrepreneur?" by describing the personality traits most often associated with entrepreneurial behavior. For a review of this perspective, see, for example, Rauch and Frese (2007). When trait theory received criticism due to the lack of conclusive results and the lack of variability in results, entrepreneurship scholars went on to ask "what does an entrepreneur do?" (Gartner 1988). This question opened an avenue of research in entrepreneurship rooted in the behavioral approach of psychology. At the same time, to explain entrepreneurial behavior, motivational theories were brought to the field as well (the work of McClelland (1961) is central for this topic).

As the field moved to focus on the context where entrepreneurs act, in new ventures, other questions came up to focus on "how does an entrepreneur think?". The description of entrepreneurs' cognitive frameworks is deeply based on cognitive psychology (Mitchell et al. 2004, 2007; Costa et al. 2016) and is grounded in the idea that entrepreneurship is a conscious act (Krueger 2007) that depends on individuals' experiences and expertise, and can be mostly learned (Drucker 1985). Currently, cognitive perspectives on entrepreneurship research are still central, giving rise to the creation of the entrepreneurial cognition subfield (Mitchell et al. 2002).

As the entrepreneurial field moves forward, questions regarding the development of entrepreneurial thinking and mind-set gain importance, and these are also deeply rooted in psychological theories. Consequently, entrepreneurship has moved from being a purely economic field, mainly targeting the creation of new ventures, to focusing on individual behavior, entrepreneurial thinking, and methods entrepreneurs use to create value for themselves and their community. Accordingly, entrepreneurship research nowadays goes beyond the venture creation process and takes different shapes and forms. We suggest that a legitimate and imperative next step for the entrepreneurship research field is to focus on the quality of life of entrepreneurs. Entrepreneurship research has focused on entrepreneurs' personality, behaviors, and cognition. These approaches focusing on the well-being of entrepreneurs are necessary to

understand the impact of entrepreneurship on individuals' mental health, to promote quality of life, to understand the motivations underlying entrepreneurial behavior, and, ultimately, to continue understanding how these individuals change their environment, discover opportunities, and advance societies in innovative ways.

In this chapter, we first present a general overview on how psychological theory and measurement evolved over time. Next, entrepreneurship is emphasized from a psychological perspective and then we focus on well-being theory and open a discussion on how it is relevant for entrepreneurship research. We conclude with a general model that can inspire future research paths.

Perspectives from the Science of Psychology

The core study object of psychology is human beings' behavior and mental processes in a variety of situations (Fowler 1990). Psychology relates to the study of individuals or groups of individuals with the goal of enhancing the current common understanding of human-related subjects, such as, the process of learning and how the optimal well-being of people are defined in different cultures. Additionally, psychological practice differs according to its subfield. For example, a clinical psychologist focuses on remedying mental disorders, while an organizational psychologist focuses on subjects related to the workplace, team dynamics, and career planning. Nevertheless, the common goal of practitioners is to assure individuals' well-being in the different contexts of their lives and the optimal foundation for further personal development. Accordingly, in this chapter, we address well-being as a complementary field of psychology that has not yet been fully integrated into entrepreneurship, as a relevant opportunity for research. In our view, studying entrepreneurs' quality of life, how entrepreneurs perceive their subjective well-being and happiness, is relevant to promote better practices and policies in entrepreneurship practice. Before delving into the details of well-being theories and entrepreneurship, we first focus on the key concepts of psychology and the various schools of thought that directly and indirectly have influenced entrepreneurship.

Psychology as a Scientific Field

Psychology is one of the oldest disciplines with recognized scientific value in the history of humanity, spanning different regions of the globe. Psychological knowledge had been preserved since ancient times and substantially increased

in the Western world in the sixteenth century. For example, the four temperament types observed, described, and used by Hippocrates (460 BC–370 BC) for human diseases, and their later developments proposed by Galen, are still currently being used by psychology scholars (Jouanna 2010). In general, the science of psychology has had a great impact on contemporary scientists, and vice versa, such as the general theoretical enhancement by Francis Bacon (Serjeantson 2014) and, more specifically, the subject of anxiety as explored philosophically by Kierkegaard.

The first steps on how to measure psychological constructs started with Galton, who created statistical concepts and methods to study intelligence and human differences. Specifically, Galton was the pioneer of the phrase “nature versus nurture” (Galton 1869; Zaccaro 2007) which called attention, at that time, to the innate characteristics of individuals when compared to individual’s experiences. The development of psychological measurement methods was also developed in accordance with the contemporary influences of momentous scholars. For example, Galton was followed by Cronbach, who is well known for his measure of reliability in statistics and currently affecting most of the scholarly work by using Cronbach’s alpha. Related to this, Thorndike’s highly cited paper on halo error in ratings of cognitive ability testing and in the measuring of exceptional individuals affected both the measurement and the testing literature in psychology (Cortina et al. 2017).

In the stream of measuring the individual, Cattell developed psychometric-based personality traits (16 Personality Factors); Binet worked with intelligence tests; Wechsler developed an Intelligence Scale; and, the most used intelligence tests of today: the Wechsler Adult Intelligence Scale (WAIS), the Wechsler Intelligence Scale for Children (WISC), and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) (Wechsler 1975). Other scholars proposed also means for the measurement of personality, as Eysenck who contributed knowledge from psychotherapy, and Luria who launched neuropsychology and the neuropsychological functioning based on soldiers with brain damage, which is still influencing our understanding of neuroscience.

The theoretical foundations of psychology took shape in the eighteenth and nineteenth centuries based on the pioneering work of distinctive scholars. Well known are the psychological experiments by Skinner (the founder of behaviorism theory) and the stimulus-response experiments with dogs conducted by Pavlov. In opposition, Dewey (1896) postulated the unitary nature of the sensory motor circuit, and influenced many other experimental models and methods such as problem-based learning (PBL)—an educational method whereby the student mainly works with real problems in group-projects

instead of having lectures, which is widely used in education today (Savery 2006), for instance, at most Danish Universities. Dewey's argument was that every occasion is influenced by prior experiences and thus influences subsequent experiences as links in a chain.

A cornerstone in psychology is the psychoanalytic conception of personality as represented by Freud's conceptions of the ego, superego, and id, standing in contrast to the archetypes of Jung. Freud and Jung inspired other scholars, such as Klein with his psychoanalytical therapy for children, and Erikson, who developed the theory of stages in psychosocial development, following in the footsteps of Freud.

Developmental psychology, the specific subfield of psychology that focuses on how and why individuals change over the span of their life, has several contributors starting with Piaget's observations on the cognitive development of his own children, Vygotsky's zone of proximal development, and the client-centered therapy of Rogers (1961). This latter theory argues that the optimal development, described as "the good life", requires that individuals' continually aim to fulfill their full potential. Accordingly, Rogers (1961) listed seven characteristics of a fully functioning person having an optimal development: (1) open to experience; (2) present in the moment and in the present process; (3) trusting one's own judgment, having a sense of right and wrong, and able to choose appropriate behavior for each moment; (4) able to make a wide range of choices, fluently and concurrent with the necessary responsibility; (5) creative—as related to the feeling of freedom, for instance, shaping one's own circumstances; (6) reliable and constructive in any action, while maintaining a balance between all of one's needs; and (7) experiences joy and pain, love and heartbreak, fear and courage intensely, while having a rich, full, and exciting life. We come back to Rogers' interpretation of the good life and the characteristics of a fully functional individual when discussing the well-being of an entrepreneur.

Educational and developmental psychology cover many of the same themes following Vygotsky's zone of proximal development (Wertsch 1984), personality (Mussen et al. 1963), role models (Van Auken et al. 2006), entrepreneurial potential (Santos et al. 2013; Jayawarna et al. 2014), and overcoming odds (Werner and Smith 1992).

Another psychological theory that concurrently is widely cited in different research fields is the theory of needs that often alternates with the theory of motives; the two significant scholars in this field are Maslow (1943) and McClelland (1985). Likewise, the group dynamics framework by Lewin (1947) and locus of control (Rotter 1990) have influenced other disciplines,

such as leadership and coping theories, respectively. Other scholars have had prominent roles in the theoretical and empirical development of psychology, such as Ajzen with the Theory of Planned Behavior (1991) and Bandura on behavioral patterns, the Social Learning Theory (1971), and self-efficacy theory (Bandura and Adams 1977).

Psychological theories and psychology as a discipline are characterized by an eclectic approach. Accordingly, Robert S. Woodworth was awarded with a Gold Medal by the American Psychological Foundation in 1956 for his “unequaled contributions to shaping the destiny of scientific psychology” (Shaffer 1956, 587); through his creation of a general framework for psychological inquiry, his nurturing of students who later became influential psychologists, and for his textbooks that were thorough in scope, depth, and clarity. “Through these texts, Woodworth articulated an inclusive, eclectic vision for 20th-century psychology: diverse in its problems, but unified by the faith that careful empirical work would produce steady scientific progress” (Winston 2012, 51).

The eclectic approach has affected the existing schools of thought with combinations, overlaps, and the specified evolutions of concepts and content in many new directions. However, the present issues of the reliability and validity of properties, classifications, and test equivalence that scholars are struggling with are similar to the measurement issues that were relevant a hundred years ago (Cortina et al. 2017).

The Psychology of Entrepreneurship

The main traditional schools and disciplines within psychology are clinical, social, industrial and organizational (I/O), developmental, and educational psychology, all of which having played an important role in explaining entrepreneurial behavior and thinking. Recently, applied psychology and positive psychology have also contributed to explaining entrepreneurship (Gorgievski and Stephan 2016) and the subfield of psychology of entrepreneurship has gained importance (e.g., Baum et al. 2007).

Social psychology focuses on the activities, patterns, and characteristics of groups, clusters of entrepreneurial ventures, local environment, family context, and teams. For example, *social psychology* is relevant when we want to explain how an entrepreneur moves him or herself in this working environment, how he or she deals with the in and out group, and how becoming an entrepreneur can be a conscientious choice (Krueger 2007). *I/O psychology* and *business psychology* come also into play with topics such as work-life bal-

ance (e.g., Parasuraman et al. 1996), stress (Lazarus and Folkman 1984), hardiness (Maddi and Kobasa 1991), and leadership (Renko et al. 2015; Cogliser and Brigham 2004) that are particularly important for entrepreneurs. *Cognitive psychology* focuses on the intelligence, logical reasoning, problem-solving, coping strategies (e.g., Politis 2005), decision-making, and categorization processes which have been largely integrated in entrepreneurship (Baron 2004; Dimov 2011). Cognitive science has been a lens through which to understand various aspects of entrepreneurship, leading to the emergence of entrepreneurial cognition that aims to understand how entrepreneurs think and act. Entrepreneurial cognition refers to “the knowledge structures that people use to make assessments, judgments or decisions involving opportunity evaluation and venture creation and growth” (Mitchell et al. 2002, 97) and borrows theories, empirical evidence, and concepts from cognitive psychology and social cognition literature that have been useful to explain the development of entrepreneurs’ mental mechanisms and structures responsible for entrepreneurial behavior and thinking (Santos et al. 2016). During the last decade, entrepreneurial cognition research achieved significant findings about how entrepreneurs think and make decisions. The main findings fall into four main categories: (1) heuristic-based logic, (2) perceptual processes, (3) entrepreneurial expertise, and (4) effectuation (Mitchell et al. 2007).

New subfields emerge continually in accordance with the eclectic approach. Another recent perspective is positive psychology, which is also relevant in entrepreneurship (Seligman and Csikszentmihalyi 2000). Positive psychology focuses on the personal development toward becoming fully functioning in life and in terms of contextual well-being, for instance, regarding entrepreneurs, the subjective well-being in relation to money (Srivastava et al. 2001), growth willingness (Davidsson 1989), and early determinations of well-being (Caprara et al. 2006). Other previous studies focused on the up and down sides of being an entrepreneur (Baron et al. 2011), resilience and emotions (Welpel et al. 2012; Zampetakis et al. 2009), and in relation to organizational behavior (Luthans 2002).

The Psychology of Entrepreneurs

Entrepreneurs are individuals working in a very specific context, with demanding working characteristics, and performing unique tasks. Thus, psychology is a relevant theoretical lens to study entrepreneurs that seem to be committed to becoming fully functioning (Rogers 1961). In line with Rogers’ characteristics of optimal development, an entrepreneur is open to experience and

present in the moment and the current process (Morris et al. 2012). An entrepreneur trusts in his or her own judgment of right and wrong (Casson 2003; Bottom 2004), and the best of entrepreneurs choose appropriate behavior, along with a wide range of other choices, with responsibility (Chakravarthy and Lorange 2008). An entrepreneur is also creative (Ward 2004) and shapes his or her own circumstances in relation to the feeling of freedom (McMullen et al. 2008). The best-functioning entrepreneurs are reliable and constructive in any action, while maintaining a balance between, for instance, control and trust (Shepherd and Zacharakis 2001). Often an aggressive need such as competition is changed into endurance and efficient problem-solving (Hsieh et al. 2007). An entrepreneur experiences joy and pain, love and heartbreak, fear and courage intensely, while having a rich, full, and exciting life (Sexton and Bowman 1985). According to effectuation theory, entrepreneurs are not able to decide the best course of action, but they have to deal with contingencies, to be flexible, and to use experimentation. Sarasvathy (2001, 2008) further suggests that entrepreneurs engaged in the effectuation approach use the results of their decisions as a new information source to change the action, work with resources at their control, and to develop necessary adjustments.

Surprisingly, the well-being of the entrepreneur is underrepresented in entrepreneurship. Understanding entrepreneurship requires the analysis of the entrepreneur's well-being, which, according to Dewey (2007), must be a circular chain in which his/her well-being determines entrepreneurial behavior, which in turn reciprocally benefits well-being perceptions. "Since the mental health of those who aspire to establish their ventures is a critical element of their capacity to perform well, an understanding of the role of individual choices of life goals and motives in promoting wellbeing not only sheds light on who benefits the most from entrepreneurship in terms of well-being, and why, but also helps entrepreneurs and those who support them in their pursuit of their entrepreneurial goals, which is equally valuable" (Shir 2015, 308–9). Hence, we expect that a psychological perspective with a focus on well-being shapes the study and practice of entrepreneurship toward the individual level and in a cross-disciplinary direction that enhances the quality of research, support, and development of entrepreneurship.

Psychological Well-Being Theory

Psychological well-being, happiness, and quality-of-life theories (Diener 1984) have not been very widely integrated in the entrepreneurship field, as opposed to in other domains of psychology, as discussed previously. Several

recent exceptions (Shir 2015; Uy et al. 2017) are discussed later in this chapter. First, it is relevant to examine what psychological theory tells us about well-being.

The study of well-being was a reaction to previously mainstream research focusing on psychological disorders and sources of suffering. Since the 1950s, it was enhanced by “notable psychologists within positive (Csikszentmihalyi, Frederickson, Lyubomirsky, Seligman), cognitive (Forgas, Isen), social and humanistic (Deci, Elliot, Higgins, Keyes, Maslow, Rogers, Ryan, Ryff, Sheldon), personality (Tellegen), and clinical (Jahoda, Jung, Keyes) psychology, as well as more direct efforts by well-being researchers, mainly within the psychological sub-field of subjective well-being (Diener, Lucas)” (Shir 2015, 53).

Psychological well-being is an individual’s general psychological condition or the overall state needed for effective human functioning (Costa and McCrae 1980; Ryan and Deci 2001) and a phenomenon with distinctive cognitive, affective, and conative elements (Shir 2015). Literature on well-being entails two major approaches: eudaimonic and hedonic theories. Eudaimonic theories are grounded in humanistic psychology and relate to the ultimate desire of all humans to achieve psychological well-being or human happiness and meaning in life (Ryan and Deci 2001), and “the striving for perfection that represents the realization of one’s true potential” (Ryff 1995, 100). In this eudaimonic approach, well-being is a derivative of personal fulfillment and expressiveness (Waterman 1993), personal development (Erikson 1968), self-actualization (Maslow 1943), individuation (Jung 1933), and self-determination (Ryan and Deci 2001), or results more generally from being fully functional (Rogers 1961; Ryff 1989). Psychological well-being entails six main characteristics of the human actualization: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness (Ryff and Singer 1998).

The hedonic approach is related to subjective happiness, the experience of pleasure as opposed to pain, the balance between positive and negative affect, and refers to satisfaction with different elements of human life (Ryan and Deci 2001). This approach is based on hedonic psychology and targets the maximization of human happiness (Ryan and Deci 2001). Within the hedonic approach, subjective well-being is very relevant, as it refers to the level of well-being that individuals experience according to their subjective evaluations of their life in any relevant domain, such as work, family, relationships, and health. Subjective well-being is conceptualized as a threefold construct including life satisfaction, presence of positive affect, and absence of negative affect (Diener and Lucas 1999).

These two well-being approaches include specific measures and operationalizations; for example, the eudaimonic approach is measured by *Ryff's Scales of Psychological Well-Being* (Ryff and Keyes 1995), *the Basic Need Satisfaction Scale* (Ryan and Deci 2001), *the Flourishing Scale* (Diener et al. 2010), whereas the hedonic approach is measured by the *Satisfaction with Life Scale* (Diener et al. 2010), *Subjective Happiness Scale* (Lyubomirsky and Lepper 1999), *Positive and Negative Affect Schedule* (Watson et al. 1988), and the *Scale of Positive and Negative Experiences* (Diener et al. 2010). These two approaches have been driving theory developments in psychology and other related fields, such as organizational behavior and management, leading to the emergence of different theories on happiness and well-being, but, remarkably, not yet on entrepreneurship, to any great degree.

Nevertheless, Shir's (2015) work is pioneering in studying well-being in the entrepreneurship context, and in uncovering the impact of well-being *in* entrepreneurship along with the impact of well-being *from* entrepreneurship. Shir defines entrepreneurial well-being in the following manner: "subjective well-being from entrepreneurship—is a distinctive and important cognitive-affective entrepreneurial outcome; a state of positive mental wellness with potentially far-reaching effects on entrepreneurs' psychology, behavior, and performance" (2015, 22). His work integrates the development of a theoretical, context-specific theory of well-being in entrepreneurship and its payoff structure (Shir 2015). Yet this is, to the best of our knowledge, a solo effort to define and explore well-being in the entrepreneurship domain (Journal of Business Venturing is preparing a special issue on entrepreneurship and well-being that will certainly contribute to narrow this gap). Other main efforts were primarily developed by economists who focused on labor and happiness, studying the relationship between self-employment and work and life satisfaction (e.g., Blanchflower 2000; Andersson 2008). For example, Blanchflower and Oswald (1998) found that the self-employed were more satisfied with their jobs. Similarly, self-employed individuals from the Organization for Economic Cooperation and Development (OECD) countries reported higher levels of job and life satisfaction than employees (Blanchflower 2000), but this positive effect was found to be limited to the rich (Alesina et al. 2004) or due to the specific psychological characteristics of the owners (Bradley and Roberts 2004). In the same line of results, Andersson (2008) showed that self-employment is related to an increase in job satisfaction, and that there is a positive correlation between self-employment and life satisfaction.

Engagement in entrepreneurial activities can favorably influence individuals' well-being, as the entrepreneur is benefiting from a greater autonomy while developing his or her own meaningful job, pursuing a dream, generating value for the community, opening placement opportunities, and creating

value. However, engagement in entrepreneurial activities can also be detrimental to an individual's well-being, as the entrepreneur is operating in a highly uncertain environment, with constrained resources, increasing competition pressure, heavy economic and financial responsibility, and social pressure. Thus, it seems that the nexus between entrepreneurship and well-being is very complex, paradoxical, and under-researched. Scholars have not yet explored the mechanisms that explain the impact of entrepreneurship on well-being, nor the mechanisms that explain the impact of well-being on entrepreneurship, nor the predictors that are associated with these two relationships, nor how well-being levels fluctuate across the different stages of the entrepreneurship process, nor the well-being outcomes for the individual and for the venture. Understanding well-being in entrepreneurship is important to shield entrepreneurs' mental health and to uncover the encouragement and motivations underlying the decision to engage in entrepreneurship.

Psychological Well-Being Theory Is Fundamental for Understanding the Individual Entrepreneur

Entrepreneurship is primarily an individual effort (Shane and Venkataraman 2000; Shane 2003), as recognizing opportunities is fundamentally a mental process engaged in on an individual basis (Baron 2006). Entrepreneurial activity unfolds by virtue of the entrepreneur leading the decision-making processes (Sarasvathy 2001; McMullen and Shepherd 2006), leveraging resources (Alvarez and Busenitz 2001), founding the business (Hoang and Gimeno 2010), and maintaining motivation even during the most difficult times (DeTienne et al. 2008). Thus, studying the person as an entrepreneur is very important in order to understand and enhance performance across the diverse scope of entrepreneurial activities. Consequently, diverse scientific fields focusing on the individual appeared as relevant and adequate to converge on the entrepreneurship domain. This is why psychology comes into play and has been such a relevant framework to explore the unique characteristics of entrepreneurs (Hisrich et al. 2007; Baum et al. 2007; Frese and Gielnik 2014).

Entrepreneurship has been mainly drawing from specific domains within psychological theory, such as cognitive psychology (Mitchell et al. 2002), to explain opportunity recognition processes (Grégoire et al. 2010; Santos et al. 2015; Costa et al. 2018), to define entrepreneurial alertness (Gaglio and Katz 2001), and to understand heuristics in decision-making processes (Busenitz and Barney 1997), risk-taking (Palich and Bagby 1995), and creativity (Ward 2004).

Affective theories (Forgas 2008) have also been very relevant to entrepreneurship research (Baron 2015) with a focus on the basis of entrepreneurial passion (Cardon et al. 2012; Cardon et al. 2009), studying emotions in entrepreneurial opportunity evaluation and venture efforts (Foo et al. 2009; Foo 2011), creative processes (Hayton and Cholakova 2012), and business failure (Shepherd et al. 2009), to name a few. Another domain of psychology that has been widely integrated in entrepreneurship research is personality (Rauch and Frese 2007; Østergaard 2017), specifically patterns of entrepreneurial personality (e.g., Brandstätter 2011), and its impact on different outcomes, such as venture growth (Lee and Tsang 2001).

Well-Being as a Predictor of Entrepreneurial Activity

One of the seminal definitions of entrepreneurship describes it as a process through which individuals identify, evaluate, and exploit opportunities (Shane and Venkataraman 2000). Both individuals and opportunities are thus central for the entrepreneurial process to unfold and this relationship is typically referred to as the individual-opportunity nexus (Shane 2003). The literature is rich in attempts to explain and predict how this process unfolds. Several authors have focused on explaining which individual factors determine the ability to identify opportunities (Baron 2004, 2006), while others have focused on how opportunities come into existence (e.g., Alvarez and Barney 2007). Cognitive theory has offered important insights in describing the mental mechanisms that entrepreneurs engage in when identifying, evaluating, and exploiting opportunities.

As far as opportunities are concerned, a debate on whether opportunities are discovered or created has motivated several studies in the field, even though recent perspectives stress a realistic approach on how opportunities come into existence, emphasizing individual desire and agency efforts as key elements of opportunity identification (Ramoglou and Tsang 2016). We suggest that the entrepreneurial process, rooted in opportunity identification, evaluation, and exploitation, is highly dependent on the individual well-being of the entrepreneur as demonstrated in the entrepreneurial behavior. Interestingly, this association has never been explored.

However, since entrepreneurship and the identification of opportunities depends deeply on the individual effort of entrepreneurs, it seems that understanding entrepreneurship requires a deep insight into the fundamental relationship between entrepreneurial activity and the well-being of the individuals involved. In this sense, the six characteristics of human actualization (Ryff and Singer 1998) and the seven characteristics of optimal development,

described as the good life, in which individuals fulfill their full potential (Rogers 1961), tend to provide insight into the well-being of entrepreneurs.

In fact, entrepreneurship has moved from being examined from a purely economic perspective, where organizations were the main level of analysis (e.g., Schumpeter 1934), to a perspective in which the individual is central to understand the entrepreneurial phenomena (Gartner et al. 1994). Concepts such as entrepreneurial mind-set, seen as the ability to master entrepreneurship through experience (Haynie et al. 2010), and entrepreneurial cognition, seen as the basis of entrepreneurial thinking and action (Mitchell et al. 2002), demonstrate that individual motivations, perceptions, and predispositions toward entrepreneurship are central to understanding entrepreneurial activity and success. Therefore, investigating the way individuals feel when engaging in entrepreneurship is of utmost importance to understanding entrepreneurial activity. Well-being, as an individual-level variable, can both determine the conditions in which to engage in entrepreneurship and be affected by the entrepreneurial activity outcome in return. While individual factors may determine entrepreneurship activity, this in turn may affect the subjective perception of well-being as well, consistent with the aforementioned circular chain (Dewey 2007).

First, we deal with the six main characteristics of human actualization: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness (Ryff and Singer 1998) in relation to the seven characteristics of a fully functional person (Rogers 1961). We suggest that the characteristics of Rogers, as related to the experience of diverse feelings and a rich, full, and exciting life, align with the hedonic dimensions as the outcome of the entrepreneurial activity. Next, the crucial factors of individual entrepreneur's well-being are integrated (Table 2.1).

Finally, we propose a model according to which the entrepreneurial process depends on the eudaimonic characteristics of well-being as individual predictors of entrepreneurial behavior as reflected by opportunity identification, evaluation, and exploitation. The entrepreneurial activity, as the context in which entrepreneurs behave, think, and feel, influences the hedonic perceptions of well-being, this seen as the subjective well-being of the entrepreneur. See Fig. 2.1.

The model we propose is based on the assumption that well-being has a circular effect on the individual, which means that the eudaimonic aspects of well-being are predictors of entrepreneurial activity, while the subjective hedonic aspects result from engaging in entrepreneurial activity. In this sense, the eudaimonic dimensions of well-being refer to characteristics, which are endogenous to the individual. Autonomy, personal growth, self-acceptance, life purpose,

Table 2.1 Well-being dimensions

Rogers characteristics distributed in accordance with eudaimonic and hedonic dimensions	
Eudaimonic dimensions	
Autonomy	Trusting one’s own judgment, sense of right and wrong and able to choose appropriate behavior for each moment
Personal growth	Creative—related to the feeling of freedom, for instance, shaping one’s own circumstances
Self-acceptance	Open to experience
Life purpose	Able to make a wide range of choices, fluently and concurrent with the necessary responsibility
Mastery	Present in the moment and in the present process
Positive relatedness	Reliable and constructive in any action, while maintaining a balance between all of one’s needs. (Even aggressive needs will be matched and balanced by intrinsic goodness in congruent individuals)
Hedonic dimensions	
Life satisfaction	Experiences joy and pain, love and heartbreak, fear and courage intensely, while having a rich, full, and exciting life
Positive affect	
Negative affect	

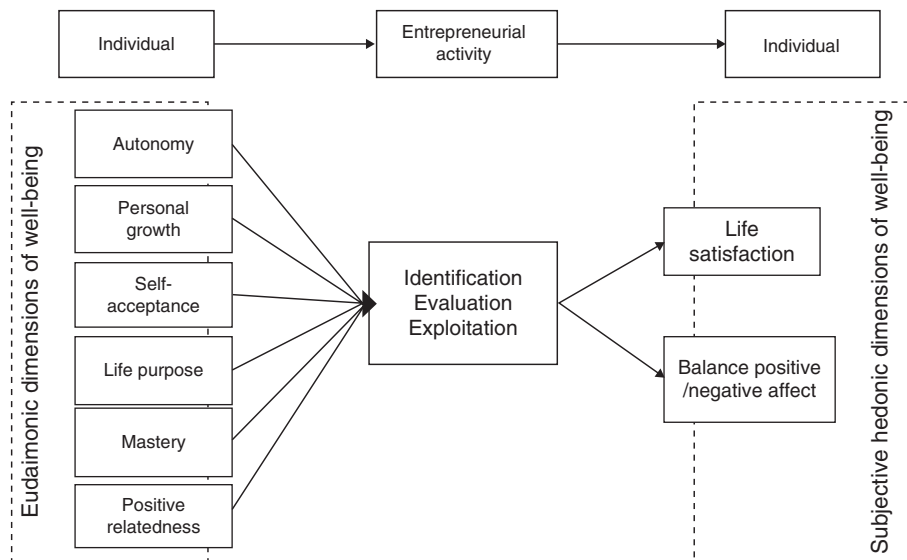


Fig. 2.1 Eudaimonic and hedonic well-being dimensions in the entrepreneurship process

mastery, and positive relatedness affect an individual and are likely to motivate entrepreneurial activity. Specifically, individuals with high *autonomy* are characterized as being self-determining and independent, capable of persisting with their thinking even under social pressure, being able to regulate their behavior internally, and guided by self-evaluation and by their personal standards (Ryff and Singer 1998). Individuals with high *personal growth* strive for continued self-personal development and growth, targeting constant improvement, engaging in new experiences and discoveries, and continuously evolving based on their self-knowledge and effectiveness (Ryff and Singer 1998). Regarding those individuals with high *self-acceptance*, they are characterized as having a positive attitude toward themselves, but, at the same time, they accept the positive and negative aspects of their self, and feel comfortable about their past life (Ryff and Singer 1998). Individuals with a high *life purpose* have established goals in life and a perception of directedness. They also perceive the present and past meaning of life, and have strong goals, vision, and objectives for living (Ryff and Singer 1998). Having a high *mastery* means that individuals feel competence in managing a particular task, controlling external activities, and using the opportunities in the environment effectively (Ryff and Singer 1998). Having positive relations with others, that is, *positive relatedness*, is typical of individuals with warm, fulfilling, and trusting relationships, being attentive to others' general health, happiness, and fortunes, capable of developing strong ties with others that are based on empathy, affection, and intimacy, and exhibiting resilience in the give and take of any relationship (Ryff and Singer 1998). These eudaimonic dimensions of well-being are not stable but rather change over time, depending on the context and performance perceptions of the individual.

Thus, these six characteristics of eudaimonic well-being are in line with the general evidence on the main individual characteristics positively associated with identification, evaluation, and exploitation of opportunities, such as those exhibited by entrepreneurs that are motivated by the execution of higher autonomy and personal realization and recognition (Carter et al. 2003), and by having a high internal locus of control (Brockhaus 1975) and, thereby, the experience of strong social networks and social capital (Greve and Salaff 2003).

In our model, we follow the conceptualization of entrepreneurial activity as grounded in the identification, evaluation, and exploitation of opportunities. These actions cover the largest part of the entrepreneurial process. Entrepreneurial opportunities set up the preconditions from which the entrepreneur acts. Engaging in the different activities related to entrepreneurship is known to influence the feelings of the individuals involved, especially when these activities are central to the personality of entrepreneurs (Cardon et al. 2009). Therefore, entrepreneurial activity is likely to influence

entrepreneurs' subjective perception of well-being, namely their satisfaction with life and happiness in general, resulting in an optimal balance between positive and negative affect.

Our model stresses the importance of well-being in the entrepreneurial process by emphasizing that the individual characteristics determining involvement in entrepreneurial act, those of opportunity discovery, evaluation, and exploitation, which in turn affects the subjective perception of well-being. Moreover, we conceive this model as dynamic, and, as the eudaimonic dimensions of well-being are changeable, there is a potential feedback loop so that positive benefits of well-being for entrepreneurial activity increase the sense of well-being in a virtuous circle. In addition, this framework opens several new avenues of research, such as, for example, on the dimensions of well-being and how entrepreneurship shapes the various dimensions of entrepreneurial well-being, how well-being changes depending on situations, conditions, and entrepreneurial experiences, and what the predictors and outcomes of entrepreneurial well-being are.

Future research should also consider particular conditions that interfere with the model, for example, how different types of ventures influence the well-being of entrepreneurs. Entrepreneurs create different types of ventures—survival, lifestyle, managed growth, and aggressive growth ventures (Morris et al. 2018)—and these require different tangible and intangible resource configurations. These four types are defined based on a range of criteria including annual growth rate, time horizon, management focus, management style, entrepreneurial orientation, technology investment, liability of smallness, source of finance, exit approach, management skills, structure, reward emphasis, and founder motives (Morris et al. 2018). Building on this typology, if an individual aspires to have a work-family balance, to create value for a particular location while generating profit to provide a steady income and financial comfort, then he/she will launch a lifestyle venture and not an aggressive growth venture that, in essence, requires other individual choices and commitments. Thus, while positive well-being may be an important factor in enabling entrepreneurship at the start, the pursuit of well-being as an objective may undermine business optimization. And, as theory in entrepreneurial well-being advances, there is also a need to discuss how to measure the impact of well-being in entrepreneurship (and vice versa) and prepare studies with adequate research designs that allow the establishment of causal relationships, such as longitudinal designs.

Conclusion

Psychology focuses on the importance of the general well-being of individuals in different contexts. Despite the fact that psychology has already informed entrepreneurship in several relevant topics, we do not yet know much about the well-being of entrepreneurs. As entrepreneurship is progressively a more frequent choice for individuals, it is critical to understand how well-being influences the entrepreneurial process, and also, how well-being can motivate or trigger individuals to start their own venture. Indeed, individual decision-making (McMullen and Shepherd 2006), entrepreneurial motivation (Shane et al. 2003), entrepreneurial identity (Down and Reveley 2004), and founder identity (Powell and Baker 2014) are relevant constructs to explain the relation between well-being and entrepreneurship. Based on this conceptual foundation, empirical research is needed to further explore the relations set forth here, and specifically to further clarify other variables that might be interacting here, such as venture types (Morris et al. 2018), occupational experience, education, age, gender, personality, and social background, to state a few.

As an effort to understand the interplay between objective and subjective notions of well-being, in this chapter, we put forward a framework integrating the eudaimonic and hedonic perspectives of well-being. We hope that our model inspires future research, calls the attention of scholarly research on well-being and entrepreneurship, and sparks the curiosity of the readers toward these topics to continuously look for more theoretical and practical connections between psychology and entrepreneurship. By grounding research on well-informed theories, and using reliable methodologies and rigorous data analysis processes, psychology will continue to contribute to the development of entrepreneurship theory and practice.

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3

Cognitive Neuroscience Perspective on Entrepreneurship

Jeanne Sørensen Bentzen

Introduction

Cognitive neuroscience has in recent years become an inspiration to different fields of research such as consumer research, financial behavior, organizational behavior, and entrepreneurship. The focus in ‘neuroentrepreneurship’ has been on topics such as unconscious processes in entrepreneurial behavior and entrepreneurial propensity, but the area is still researched to a very limited extent. The purpose of the present chapter is to expand the understanding of what cognitive neuroscience has to offer the field of entrepreneurship with a focus on one important topic in entrepreneurship: ‘the entrepreneurial mindset’. Understanding of what creates entrepreneurial intentions and what makes an entrepreneur is a topic of importance in entrepreneurship research; however, little is known about this. A look into other disciplines and exploring what they have to offer in terms of a foundation for understanding specific concepts and processes could be a turning point for entrepreneurship research. It is, in the present chapter, suggested to explore this, with the support of neuroscience, by looking into how events in a person’s life can influence the propensity to become an entrepreneur.

The author of this chapter assesses that cognitive neuroscience can contribute greatly in many ways to the field of entrepreneurship. A better understanding of

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behavior both in the form of theories and constructs of relevance, and by applying the techniques used in cognitive neuroscience offers opportunities to develop the entrepreneurship field and gain new understanding of unconscious and automatic processes, things that are normally inaccessible to the researcher. At the same time, it is important to realize that neither cognitive neuroscience nor neuroentrepreneurship is likely to revolutionize the field of entrepreneurship. It is a source of new inspiration and an opportunity to explore new ground for entrepreneurship research, and it represents a focus that has not received much attention up until now—the biological aspect. This, however, does not mean that the focus that has been dominant so far should be discarded.

This chapter offers an introduction to what cognitive neuroscience is. Part of this focus is directed at the techniques used, as these are a fundamental part of cognitive neuroscience. The chapter further explores some of the issues in entrepreneurship research that are believed to potentially benefit from neuroscience and, finally, the chapter takes a step further and specifically look into topics in neuroscience that can potentially enlighten entrepreneurship research in relation to uncovering the making of an entrepreneur.

What Is Cognitive Neuroscience?

Cognitive neuroscience is an interdisciplinary field that combines experimental psychology and various disciplines within neuroscience, computer science, philosophy, linguistics, and others for a unified approach to the study of mind-brain. The early initiation to the field started in the 1980s (Posner and DiGirolamo 2000). In other words, it is a young discipline. The ambition has been to integrate the view of cognition and brain function to illuminate topics important to psychology, something other disciplines that rely on this field can also benefit from. The primary achievements in the field of cognitive neuroscience relate to (a) functional anatomy: localizing brain areas that perform particular functions (the where), (b) circuitry: determining the time course of cognitive processes (the when), and (c) applications: how or whether the new results modify the thinking on traditional issues in cognitive psychology, for example, attention and information processing (Posner and DiGirolamo 2000). Furthermore, the field has focused on developmental issues in the human brain such as is the case with infants and children, as well as the aging process.

To understand the essence of the field, it is important to distinguish between cognitive neuroscience and cognitive neuropsychology. Cognitive

neuroscience is a branch of neuroscience that is engaged in studying the neural structures subserving cognition (Coltheart 2002). Scholars distinguish between understanding the brain, which is done through neural structures (cognitive neuroscience) and understanding the mind (cognitive neuropsychology); both may be highly relevant for the field of neuroentrepreneurship. However, there are other relevant distinctions to be made (Plassmann et al. 2012). The scope of neuroscience is too broad for the study of entrepreneurship psychology, and some aspects of neuroscience are currently not relevant. The study of different brain areas is relevant on a systems level but neuroscience also looks at the cellular level, which is less relevant. When neuroscientists study processes, they look both at primitive creatures such as sea snails and fruit flies and at more complex creatures such as mammals and primates; neuroentrepreneurship should focus on the study of human subjects and thus will want to investigate the neural processes of humans. Neuroscience also distinguishes between clinical and nonclinical research. Clinical research studies how disorders and traumas in the nervous system affect cognition, emotions, and behavior in patients. In general, it must be assumed that the focus of neuroentrepreneurship should be on healthy subjects.

Neuroscience as a field follows a naturalistic school of thought (Bechtel et al. 2001), and this is reflected in the methodology applied, which is experimental. These kinds of techniques are common to other disciplines that have applied cognitive neuroscience such as economics, marketing, and consumer research but uncommon in entrepreneurship research, which poses both *opportunities* and *challenges* for the field to develop through this perspective. Opportunities: because new techniques and new perspectives offer a foundation for asking and answering new questions and developing the field. Challenges: because the experience with conducting this type of research is limited.

Linked to cognitive neuroscience is the use of specific techniques, collectively denominated brain imaging, which allow for the study of neural structures (see Vignette 3.1). As a collection of techniques, brain imaging has a lot to offer when it comes to studying the brain, and, especially, in studying the unconscious and automatic processes. These techniques are what made it possible to develop the knowledge about neural structures in the brain we have today (Posner and DiGirolamo 2000). Lately, the use of testing of neurotransmitters is also moving into other fields that apply neuroscience methods.

The most commonly used brain imaging methods are EEG, MEG, PET, and fMRI. These are also the methods applied in neuroeconomics, consumer neuroscience, and so on, although the use is still rather limited, which has a

Vignette 3.1 Neuroscience Techniques

Electroencephalography (EEG) is the oldest imaging method and the least expensive. The equipment is more widely available but setting up the experiments and interpreting the output calls for expert knowledge. The method measures electronic activity on the outside of the brain using scale electrodes. The fact that it measures only the outer areas of the brain poses some limitations as to what can be studied, for example, many aspects related to emotions are situated in the limbic system in the mammalian brain, which is not reachable by EEG. The method, however, has a good temporal resolution (Kenning et al. 2007), which makes it especially suitable for measuring time with precision, or, in other words, 'when' an action occurs.

Magnetoencephalography (MEG) measures magnetic fluctuation in the brain. The equipment is less commonly found than EEG. Like EEG, it is conducted using scale electrodes attached to the scalp, but it is conducted in a magnetic shield room which yields a better measure (Hämäläinen et al. 1993). MEG has a good temporal precision of measurement but is weak in terms of the detail of imaging, although better than EEG. If only considering the results, it is superior to EEG, but it is also more expensive and more complex to analyze, which points toward the preferred use of EEG before MEG.

Positron emission topography (PET) is a nuclear medical imaging technique. It produces a three-dimensional image of the functional processes in the brain. The method measures blood flow in the brain using positron emissions. To do so, it requires an injection with radioactive contrast fluid. The scan is performed in a full body scanner. Contrary to EEG and MEG, PET offers detailed imaging but at the expense of temporal precision. PET is relatively costly and the data are complex to analyze (Kenning et al. 2007). In addition to this, and perhaps more importantly for an application in neuroentrepreneurship, it is an invasive method, due to the injection of radioactive contrast fluid. This calls for careful consideration of ethical issues, when deciding on whether to use it or not. It has only rarely been used in managerial and economical-related fields, for this very reason.

Functional magnetic resonance imaging (fMRI) is the most commonly applied technique in the managerial and economical-related neuroscience fields. It is used for estimating neural activity noninvasively. It measures the blood oxygen level-dependent (BOLD) signal, which is strongly correlated with neural activity (Yoon et al. 2006). It has an especially good resolution, allowing for detailed imaging, but, as with PET, this is at the expense of temporal precision (when a reaction occurs). The experiments are performed in a full body scanner. Goggles can be used to enable visual stimuli, and responses can be communicated by pressing buttons on a pad while the scanner records the brain signals. This sets limitations for the experiments that can be performed (as it does with most of the imaging methods). The complications associated with performing the experiment are that the participants must lie still in the scanner for a relatively long time (60–90 min) and the equipment makes a lot of noise, both of which pose discomfort for the participants (Yoon et al. 2006). Another complication is that, in order to compare subjects' images, these have to be adjusted, since the shape and size of individuals' skulls vary. Furthermore, technically it is only possible to

(continued)

Vignette 3.1 (continued)

image slices of the brain, which means that only parts of the brain can be seen in each scan. The technique is thus not suitable for exploratory research.

The measurement of neurotransmitters, as a technique of measuring biological processes, is becoming more common in neuroeconomics, and, additionally, what would also be relevant for entrepreneurship research to consider is the measurement of hormonal and genetic levels in test persons. Neurotransmitters, such as dopamine, serotonin, acetylcholine, glutamate, and gamma-aminobutyric acid (GABA), can be used as noncognitive measures of certain physiological states that might influence behavior (Konovalov and Krajbich 2016). These methods are relatively easier to perform and much less expensive than brain imaging.

lot to do with the fact that the methods are extremely expensive, require expert knowledge, and have severe technological limitations for experimental designs. Furthermore, preexisting knowledge in cognitive neuroscience about underlying brain mechanisms is a precondition for building hypotheses to be tested and thus knowledge in neuroscience defines the possible problems to be investigated. That being said, the techniques seem to have the advantage of supplying data independently of cognitive processing, which is intriguing as this offers a view into the 'black box', and access to knowledge formerly unapproachable to scholars.

The author of this chapter assesses that the most relevant brain imaging techniques for application in entrepreneurship research on a general basis are EEG and fMRI. These are also the most commonly used in consumer neuroscience. The two methods offer different research possibilities as they measure different things. EEG offers the possibility of measuring the 'when' and fMRI for measuring the 'where'. EEG is relatively accessible and the less costly within its category and neither of the two methods are invasive. The measurement of neurotransmitters might also be relevant to the study of some topics. The technique is easier to operate both in terms of researchers' experience and in terms of the conditions under which the data are collected.

Cognitive neuroscience is a relatively young field and, fundamentally, new knowledge constantly emerges. Many areas associated with human biological processes are thus of potential interest to other fields like entrepreneurship. One obvious approach is the possibility of studying unconscious and automatic processes (e.g., emotions in decision-making) in which neuroscience techniques offer unique opportunities, but other areas could also be of interest, for example, attention, value, and memory. Two key areas in entrepreneurship research are the making of an entrepreneur and entrepreneurial

identity. In this connection, an area in neuroscience that could give valuable new insights and move the research of these aspects forward is found within memory and, specifically, memories that are self-related.

Cognitive Neuroscience and the Study of Memories

One important focus area of cognitive neuroscience is memory. Memory is not just about remembering facts or events, but, as neuroscience has found, memory also plays a crucial role in our general well-being, our ability to imagine future events, and our ability to plan the future. Memory is also critical to one's sense-of-self.

To understand memory better, let us take a closer look at what memory is. Memory consists of declarative (explicit) and non-declarative (implicit) memory. Declarative memory refers to the conscious memories a person has for events and facts. Gilboa (2004) suggests that this consists of three types of memories: semantic memory, episodic memory, and autobiographical memory (self-memory). Semantic memory is the knowledge of facts about the world or about our lives, and episodic memory is the memory of what occurred a few minutes or hours ago (Gilboa 2004). Autobiographical memory is somewhat similar to the latter but has a longer time duration. The research area of autobiographical memory has grown significantly since the turn of the century.

Autobiographical memories, which can be broadly defined as memories of past events from one's own life (Cabeza and Jacques 2007), not only contain information about our past but are an essential part of who we are (Peterson 2002). Research in cognitive neuroscience has shown that autobiographical memories play an important role in the decisions we make. Many of the neural mechanisms involved in recalling past events are also used to imagine, simulate, and predict future events (Schacter et al. 2007).

Studies using fMRI have shown that emotions have a powerful influence on learning and memory (LaBar and Cabeza 2006), meaning that emotional events are more memorable. Arousal level appears to be crucial for the recall of emotional events because it engages the amygdala; emotional valence seems to be less important (LaBar and Cabeza 2006) although it does play a role. Brain activity during autobiographical memory is modulated not only by arousal but also by valence (Cabeza and Jacques 2007). In other words, emotional experiences, and, especially, high-arousal emotional experiences, are more likely to be stored in our autobiographical memory and thus more likely to influence who we are.

According to Damasio (2000), 'the self' or a person's identity is not only constituted by the past but also by the anticipated future. Memory, and according to Schacter et al. (2007), especially episodic memory (here, this possibly coincides with autobiographical memory), is important for our ability to imagine possible future events. In other words, we use episodic information to construct simulations of future events. In this sense, autobiographical memory has a directive function. The directional function of autobiographical memory has received less attention in the literature (Bluck 2003).

Harris et al. (2014) find that autobiographical memories have broader functions than earlier assumed and that autobiographical memories are linked to the ways in which people make meaning of their selves, their social world, and their environment. The ways memories function can be clustered into four different classifications: reflective, generative, ruminative, and social functions. The way people use their memories appears to reflect general individual differences and motivation (Harris et al. 2014).

From a cultural perspective, cross-cultural differences are found in how individuals use autobiographical memories. In collectivistic (as opposed to individualistic) societies, common cultural myths and narratives play a role in the strategy for explaining the present and predicting the future. Individualistic societies, however, do not seem to have common narratives anymore and the individual must create his/her own unique life story (Bluck 2003).

Autobiographical memory is a topic that is still under development in cognitive neuroscience, but the use of fMRI has increased the possibility of studying this and has thus revitalized research interest in the topic. The focus has especially been on the complex constructive nature of autobiographical memory (e.g., emotions and vividness) and the retrieval of remote memories (Cabeza and Jacques 2007). It has been found that emotional arousal has a memory-enhancing effect (LaBar and Cabeza 2006) but that it can also initiate the retrieval of emotional memory. Cognitive neuroscience offers some insights into brain processes and identification of the brain areas involved, insight that is needed in relation to doing research on entrepreneurs.

Autobiographical memories include search, monitoring, and self-referential processes. One of the important brain areas and functions, respectively, involved in the search, recollection, and retrieval of memories of our personal past is the left lateral prefrontal cortex and the memory search process that is mediated there. This interacts with the self-referencing processes via the medial prefrontal cortex and leads to the retrieval of any spatiotemporally specific event. Recollections of memories are mediated by the hippocampus and the retrosplenial cortex. The process is enhanced by emotion processing in the amygdala and visual imagery in the occipital and the cuneus/precuneus

regions (Cabeza and Jacques 2007, 225). Activity in the amygdala is correlated with the right ventrolateral prefrontal cortex regions, which means that there is an interaction between emotions content and the autobiographical memory construct. Positive memories would expectedly activate the medial prefrontal cortex temporopolar and entorhinal regions. Negative memories would expectedly activate right temporal regions. Usually the medial prefrontal cortex is seen as linked to reward, however, the prefrontal cortex also sometimes responds to negative emotions, indicating that arousal rather than valence is the key. As pointed out, sometimes the retrieval of autobiographical memories is inappropriate or incorrect—sometimes producing fake autobiographical memories—therefore, the feeling of rightness (FOR) in the ventromedial prefrontal cortex is active in monitoring the activity (Cabeza and Jacques 2007).

Some important topics connected to memory in cognitive neuroscience, besides autobiographical memory, are priming, working memory, and procedural learning (LaBar and Cabeza 2006). Emotions play a central role in all of these topics, as they generally are important in various memory systems (LaBar and Cabeza 2006). Neuroentrepreneurship may also benefit from including these concepts in the research. Priming plays a role in relation to the retrieval of autobiographical memories (voluntary or involuntary) and is thus relevant in relation to conducting research on autobiographical memory in entrepreneurs. Priming has been found to help better recall of autobiographical memories (Mace 2005).

Procedural learning is associated with skills and habits (non-decelerated memory), which is a topic also studied in association with the entrepreneurial mind-set. The nature of non-decelerated processes, such as implicit memory or knowledge, makes them difficult to study using traditional methods. It could be interesting to include this topic in research on entrepreneurial mind-sets and see whether and perhaps how it interacts with other memory systems, for example, autobiographical memory.

Contribution to the Study and the Impact of Entrepreneurship

The possibility of entrepreneurship research benefitting from the application of cognitive neuroscience and neuropsychology is twofold. We have to look both at the opportunities for conceptual understanding, hypothesis construction, and theory building, but we also have to look at the methodological implications and what they offer in terms of possibilities and limitations.

Questions at the Intersection of Entrepreneurship and Neuroentrepreneurship

Entrepreneurship researchers are still in the process of defining it as a field (Davidsson 2016). To further develop entrepreneurship research, scholars are seeking inspiration in other disciplines. They are looking also at cognitive neuroscience and, judging from the interest the area is garnering at conferences and seminars, it is considered both relevant and important. However, it seems as though, when it comes to actually applying it, the interest is much more limited. Journal publications, at least, are still very low in number. Aside from the publications arguing for the benefits of exploring neuroentrepreneurship, the publications are limited to a few studies comparing the brain functions of entrepreneurs to non-entrepreneurs, for example, Laureiro-Martinez et al. (2014) and Zaro et al. (2016). Laureiro-Martinez et al. (2014) compare the brain activity of experts with different professional background (entrepreneurs vs. managers) during an exploration-exploitation task. They use the behavioral data and fMRI. The findings suggest that individuals' ability to track evidence and disengage attention from current reassuring options are mechanisms that support the more efficient decision-making associated with switching patterns and that these are qualities associated with entrepreneurship. Zaro et al. (2016) study the process of identification of business opportunities in entrepreneurs versus non-entrepreneurs. They use cognitive brain mapping by EEG. They find possible differences in the use of context in evaluations of financial risk.

Krueger and Welppe (2014) reflect on what entrepreneurship can learn from neuroscience. They identify some potential topics where neuroscience can contribute to a deeper understanding of entrepreneurship—or, as they explain, where neuroscience can contribute to an understanding of entrepreneurship on a neurological level (biological processes), which is an aspect that has been neglected in entrepreneurship research. It is Krueger and Welppe's (2014) belief that cognitive neuroscience can help entrepreneurship research shed light on some of the deeper-lying antecedents of entrepreneurial behavior.

The identified key areas are automatic versus intentional processing, mental prototypes, fluid intelligence, and change blindness. The first point, automatic versus intentional processing, addresses the issue that, when making decisions, we are rarely mindful about the entire process. Much of what occurs in relation to decision-making is automatic or unconscious, as supported by Damasio (2000). This also means that describing this part of the decision-making process is difficult if not impossible for entrepreneurs. The relevance

of applying techniques that are not dependent on prior cognitive processing thus makes sense. Intentional processing, in relation to entrepreneurial decision-making, has been described in much more detail. The second focus area that Krueger and Welpel (2014) point at are mental prototypes. They refer to mental prototypes as being more than 'stereotypes', per se. They are explained as images of what an 'opportunity' is and what an 'entrepreneur' is. If the mental images of what an 'entrepreneur' is do not include how they see themselves ('the self' or self-identity), they are much more unlikely to become entrepreneurial and to succeed at being entrepreneurial (Krueger 2007). This appears to be related to what entrepreneurship scholars also denote as entrepreneurial mind-sets. The third topic is fluid intelligence, which is associated with the ability to solve new problems. Working memory has been found to be a key leverage point. The final topic is change blindness, which refers to the human propensity to focus attention in a way that makes us preclude seeing objects (or, in relation to entrepreneurs, opportunities and threats) that are not immediately linked to the task ahead of us.

A key interest in entrepreneurship research is the entrepreneurial mind-set and the formation of intentions. However, little has been accomplished in order to understand this. New techniques and inspiration from other fields have been called upon in order to develop the field of entrepreneurship further, as it is deemed that the present scope of entrepreneurship research so far has not managed to enlighten this in a satisfactory way. It has indirectly been pointed at as a topic for neuroentrepreneurship. Entrepreneurship research has looked at personality in order to explain what makes entrepreneurs special, but personality has not explained how entrepreneurs are different from other people. It is important for the discipline to understand what motivates and creates the intentions to act in order to move forward with an understanding of what makes an entrepreneur. This is the essence of the entrepreneurial mind-set, described by scholars as the ability to sense, act, and mobilize under uncertainty (Haynie et al. 2010). The biological level, with a foundation in cognitive neuroscience and neuropsychology, may help create a foundation for this understanding.

A persons' sense of identity forms part of the basis for the entrepreneurial initiative, and memories of one's personal life are fundamental for identity (Bryant 2014). This leads to a concept of interest in cognitive neuroscience and neuropsychology that has been making progress in recent years: the autobiographical memory. Autobiographical memory has, in cognitive neuroscience, been linked to identity and self-perceptions.

Advancing Entrepreneurship Through the Lenses of Autobiographical Memories?

Entrepreneurship scholars have worked on identifying future avenues for research where the cognitive neuroscience perspective can possibly contribute; however, this is primarily focused on *where* cognitive neuroscience and cognitive neuropsychology can inform entrepreneurship, not *how*. This means that the emphasis has been on relevant topics in entrepreneurship to research further but proposals have not really reached the point of identifying how cognitive neuroscience can contribute and with what. Therefore, in order to take a step further, a specific theoretical foundation from neuroscience is suggested. However, cognitive neuroscience does not only offer a theoretical foundation but also offer the techniques to investigate the specific area, and therefore both theoretical inputs and methodological inputs are proposed.

A sense of identity is part of entrepreneurial initiative. This makes identity a place to start in the attempt to gain more understanding of what creates the intention to become an entrepreneur. Memories of personal lives are fundamental for identity (Bryant 2014). Cognitive neuroscience places the self in connection to the autobiographical memory. According to Damasio (2000), the autobiographical memory contains the sort of memory that constitutes identity along with the memory that helps define our personhood. The reason why autobiographical memory and identity are important for entrepreneurial behavior is that autobiographical memories provide a foundation for sense-making. Autobiographical memories function as a guide for both present and future behavior, in relation to motivation, goal setting, and problem-solving (Bryant 2014, 1084), and as our sense-of-self.

Research in cognitive neuroscience has also found that autobiographical memory not only is important for remembering the past and constituting the self, it also plays an important role for imagining the future and for planning future actions. Imagining and foreseeing what will happen if a certain action is performed or a certain event occurs is something we all do when making decisions. Therefore, these memories that help constitute who a person is could be an important part of a person's propensity to become an entrepreneur.

Autobiographical memory is not under an individual's conscious control. The storing of memories is an unconscious process and we have little control over our memories, how strong the memories are, and how easy the memories are to retrieve. Memories of autobiographical events are no exception; they may only be partially reconstructed, if even recalled at all (i.e., remain unconscious) and sometimes may even be reconstructed in ways that differ from the

original event. Nevertheless, these memories, unconscious or not, can influence the retrieval of other memories (Damasio 2000). The creation of the self is a complex process and not easy to control. As such, we can conclude that, although autobiographical memories may be crucial to the making of an entrepreneur, attempting to deliberately use this knowledge to induce people to be more likely to become an entrepreneur would be a very difficult matter, if even possible. Knowing how autobiographical memories function, and how individuals use autobiographical memories in different ways, be it to create the self, to communicate the self in a social context, or as a sense of direction in decision-making, could be very important to understanding what makes an entrepreneur and how the entrepreneurial mind-set is created and sustained.

Methodological Research Inputs

The most common technique applied in cognitive neuroscience to investigate autobiographical memory is fMRI. This makes sense as we have established that emotions play an important part in autobiographical memory, and that fMRI offers the possibility of observing activity in parts of the brain associated with emotions. Furthermore, it is non-invasive and does not depend on cognitive processing. For this reason, the fMRI technique is also considered to be the most suited to apply to studies of autobiographical memory in relation to entrepreneurs. There are, however, some things to consider.

Operating in an interdisciplinary field is always challenging. To get any real benefit from conducting neuroscience studies in entrepreneurship, it is first and foremost important to have the necessary skills and equipment. However, meaningful experiments are only conducted if knowledge of the inquiring field (entrepreneurship), and what is interesting and relevant to this, are present. This often requires collaboration between scholars with different disciplinary backgrounds to cover the necessary competences. One challenge is, thus, to gather a group of scholars with different competences.

The challenge when developing interesting and meaningful research problems in 'neuroentrepreneurship' and similar interdisciplinary fields is that, not only do the research problems have to be meaningful and interesting, it also relies on existing knowledge in neuroscience about brain mechanisms that would hypothetically be related to the specific processes. Some research has been done on autobiographical memory in cognitive neuroscience, but much is still unknown, and this sets boundaries for the investigations to be performed.

One issue is what can be done; another is the relevance of what is being tested, and this often means much more complex experimental setups than usual in neuroscience. This creates a challenge for social science fields that apply cognitive neuroscience. The lesson from neuroeconomics is that finding neural structures behind economically relevant behaviors and constructs such as value is a lot more complex than finding neural structures in general. This will be a challenge in all social science fields that adopt the neuroscience approach. In economics, this has slowed down the development of the interdisciplinary field of neuroeconomics. The simple ‘brain mapping’ correlation techniques that originally dominated neuroeconomics turned out not to work well with economic concepts and models. There were too many overlaps, which resulted in no meaning at all. Neuroeconomics has moved on to more complex network models, multivoxel pattern classification, and computational models of decision-making processes as a consequence of this (Konovalov and Krajbich 2016). This appears to be working better, but there is a long road ahead. Researchers in neuroentrepreneurship should be aware of the issues dealt with in neuroeconomics and learn from this more experienced field.

Other challenges or weaknesses include, on a more general level, the fact that experiments will need to be conducted in a laboratory setting. Results of this kind of research are bound to meet critique based on the unnatural setting. Furthermore, the cost of conducting the experiments, the time consumption associated with running an experiment, and the uncomfortable and alienating situation the respondent is being put in (which result in recruitment difficulties) mean that only a few people are scanned in each study. Twenty people is not an unusual number of participants, and this means that given the low number of participants even the representativeness of the studies are deemed weak. In spite of this, the possibility is still considered intriguing.

It is important to be aware when applying brain imaging techniques, as intriguing as they may be, that they should not replace the existing methods. Therefore, other methods as well should be kept in mind, for example, laboratory experiments, self-report methods, and interviews. The purpose of the brain imaging methods is not to replace other methods but to supplement those methods (Yoon et al. 2009).

In neuroentrepreneurship, when compared to, for example, neuroeconomics or consumer neuroscience, there is yet another challenge to overcome: the fact that entrepreneurship research has not traditionally used experiments as a method might constitute a boundary for conducting brain imaging experiments (Krueger and Welpel 2014). The lack of experience with creating experimental setups is likely to make it more difficult for researchers to initiate working in the field of neuroentrepreneurship.

Conclusion

Cognitive neuroscience is evaluated to have the potential to contribute to the development of entrepreneurship research in that it can contribute to knowledge about the processes happening in the brain of the entrepreneur and it can be used to create new hypotheses and possibly provide enlightening responses to some of the questions raised concerning the entrepreneurial mind-set, specifically in relation to entrepreneurial identity. Autobiographical memory is an area of interest in cognitive neuroscience and cognitive neuropsychology as it relates to self-identity and this area is judged to be an important input in developing an understanding of entrepreneurial identity creation and entrepreneurial intentions. This can support an understanding of how events in a person's life can influence the propensity to become an entrepreneur.

Looking into other memory-related areas in cognitive neuroscience may also inspire new questions related to entrepreneurial identity and intention. This could encompass areas such as priming and procedural learning. Furthermore, cognitive neuroscience can also contribute with techniques for examining autobiographical memory, an area that is concluded to be relevant in relation to the making of an entrepreneur. fMRI is considered the most relevant neuroimaging technique for these kinds of studies. Although expensive and requiring expert knowledge, as well as being limited by other weaknesses, it is special in the sense that it is not dependent on prior cognitive processing and thus it is possible to be used to study unconscious processes.

Cognitive neuroscience should not be seen as revolutionizing the field of entrepreneurship, but a focus on biological processes may support a more complete understanding of entrepreneurial behavior, and thus the perspective does have intriguing insights to offer. One should, however, not overlook the challenges and pitfalls of the neuro-perspective. There are many limitations and many obstacles to be overcome for a field like entrepreneurship, and it is important to be aware of these. Contrary to, for example, economics and consumer research, entrepreneurship researchers need more experience with the experimental methodologies. Experiences from other fields like neuroeconomics can be helpful in approaching this type of research in a feasible manner and avoiding making the same mistakes to start with as some of the early movers in applying the neuro-perspective in social science made.

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4

Framing Perspective on Entrepreneurship

Ade Mabogunje, Poul Kyvsgaard Hansen, and Pekka Berg

Introduction

“The troll disappeared when his name was mentioned” is a saying in the old Nordic mythology. Here the trolls are portrayed as uncanny beings that threaten and frighten people. The trolls most often keep themselves invisible and are great shape-shifters that have the ability to change shape according to their surroundings. Two events can make the trolls disappear and thereby eliminate the danger to humans. One event is to mention their name and the other is when they are exposed to sunlight.

There are many potential analogies between the troll example and the handling of uncertainties in regard to entrepreneurial challenges. Often the uncertainties arise and persist due to the challenges of verbally or visually expressing the perception of a given problem or opportunity. This phenomenon can be seen from various perspectives. In this chapter, the underlying

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hypothesis is that the limitations that we experience in regard to framing both the problems and the opportunities are significant barriers in regard to handling uncertainties. These limitations are both linguistic and non-linguistic, and the enabling mechanisms to deal with uncertainties are multiple combinations of linguistic and non-linguistic means. The challenges relate to perceiving, understanding, and communicating relevant problems or opportunities. In this perspective, it is always relevant to ask whether a sufficient linguistic preparedness exists in regard to the present problem or opportunity. If a sufficient linguistic preparedness exists, there is a better chance that “the troll will disappear” either by giving it a name or by shedding light on it. When dealing with entrepreneurial uncertainties, it is often implied that this “name” or this “light” is a new name and/or a new light that triggers a new perception or a new understanding. Therefore, the linguistic perspective is also closely related to re-framing or a change in current perceptions of a given reality. Since the chapter is focusing on entrepreneurial activities, the context will be product or service innovation. However, the concepts discussed can be applied to any complex solution-development problem.

A Framing Perspective

Framing can be seen as an ability to see a problem in a new or refined perspective. In a framing perspective, this can be interpreted as an ability to capture a problem in a multi-disciplinary frame that enables the involved people to explore and communicate the current state of the problem or that can be employed as a cognitive shortcut that helps people make sense of complex situations. The multi-disciplinary frame combines both linguistic and non-linguistic elements. In this perspective, framing can be seen as an essential element in the early phases of any entrepreneurial process.

Entrepreneurship has traditionally been defined as the process of designing, launching, and running a new business. Typically, the focus has been on small businesses or start-up companies (S. A. Shane 2000). However, in his book, *The Lean Startup*, Eric Ries states that entrepreneurs are everywhere (Ries 2011). By this statement, Ries emphasizes that entrepreneurship is not a question of the size of the organization but rather a question of the context in which the activities take place. Some authors distinguish between “entrepreneurship” and “intrapreneurship” whereby the latter is seen as entrepreneurship within an existing or larger organization. Throughout this chapter, only the overall term entrepreneurship will be used to cover both phenomena.

The vehicle for entrepreneurship is the start-up, and the start-up is defined as a human institution designed to deliver a new product or service under conditions of extreme uncertainty (Ries 2011). Following this definition, entrepreneurship can be found in any type of organization independent of size, sector, and industry. The common denominator is the presence of extreme uncertainty. Entrepreneurship is a set of activities but also essentially an organizational function, and to this set of activities and the organizational function, a number of management challenges that differ significantly from other types are associated that differ significantly from other types of management challenges. Among these challenges, the means to support the handling of extreme uncertainty is the most essential.

This definition emphasizes entrepreneurship as a cross-disciplinary set of activities that encircle and connect the traditional product and service development activities that focus on how entrepreneurs apply identified opportunities to develop new products or services, launch new firms, or even new industries. The wider definition also adds perspectives concerning how and why some organizations identify opportunities, evaluate them as viable, and then decide to exploit them, whereas others do not (Shane and Venkataraman 2000).

Entrepreneurial activities typically take place within an ecosystem which often includes government programmes and services that promote entrepreneurship and support entrepreneurs and start-ups, non-governmental organizations such as small business associations and organizations that offer advice and mentoring to entrepreneurs, entrepreneurship education and training programmes offered by schools, colleges, and universities, and financing, for example, bank loans, venture capital financing, angel investing, and government and private foundation grants (Hwang and Horowitz 2012). For large organizations, the same elements apply but most important is the overall awareness that the entrepreneurial activities differ from other activities in the organization (O'Connor et al. 2008).

The two elements, (1) activities under extreme uncertainty and (2) cross-disciplinary activities, are therefore the essential parameters in the definition of entrepreneurship. Dealing with both parameters is highly dependent on concepts and skills that can be framed under a combined linguistic and non-linguistic perspective. The linguistic perspective relates to the essential question about whether there exists an accurate and sufficient language in regard to communicating and exploring the concept and the challenges associated with an entrepreneurial idea. Four generic questions can illustrate the language challenge: (1) Does language affect our perception of a given subject? (2) Does language affect our ability to explore a complex problem? (3) Does language affect our ability to communicate insights or doubts to others

involved? (4) Do the languages associated with a given context have a tendency to create stereotypical understandings of this context? In all cases, the answer is an unambiguous “yes”.

The research contributions in support of these questions are extremely comprehensive and diverse in focus. They include both linguistic and non-linguistic elements. Linguistics is defined as the scientific study of human language and can broadly be broken into three overall categories: language form (structure, grammar, syntax, phonetics), language meaning (semantics and pragmatics including conveying, processing, assigning, and perceiving meaning), and language in context (language evolution, semiotics, psycholinguistics, sociolinguistics, neurolinguistics, and discourse) (Halliday and Webster 2006).

A substantial element is the educational and learning element. Here, the focus is on teaching and learning languages. This aspect is not a part of the scope of the current chapter.

Another and much less focused-upon aspect is the interdisciplinary challenges that involve language. These are many and, in the widest sense, comprise all existing and evolving systematic knowledge about language in all its aspects. This is the focal area of this chapter.

Within the wider interdisciplinary area, there are subareas that are the focus of professionals from different application areas. The interdisciplinary language aspects of these subareas are highly driven by an urge to expand the understanding of the interplay between the numerous factors involved. Ultimately, the overall purpose is to support performance improvements in terms of the precision of focus and the speed of development processes. Complex problems generally do not match the boundaries of a single discipline. Subsequently, in order to deal with complex problems, more disciplines are needed to be drawn from and these disciplines each have their own professional language. The coexistence of many disciplines creates challenges that can be characterized as interdisciplinary, multi-disciplinary, and transdisciplinary (Blessing et al. 2017). These challenges are informed by a variety of different disciplines, for example, linguistics, psycholinguistics, psychology, cognitive science, ethnography, ethnomethodology, sociolinguistics, sociology, semiotics, and cultural studies.

Ambiguity is an inevitable element in what can be framed as linguistic relativity or diversity (Peled and Bonotti 2016). The relativity or diversity can be seen in two purposive perspectives. A relatively unambiguous interpretation would favour a unified perception among the several persons involved and a relatively ambiguous interpretation would favour multiple simultaneous views of a given complex problem. In a communicative professional setting, given

the interdisciplinarity, and the emergent nature of the language associated with describing and understanding a complex problem, both perspectives of relativity or diversity can be observed and utilized. Importantly, the ambiguous interpretation avoids or postpones identifying a deterministic causal chain between the complex problem and the emerging language that can address the various features and facets of the problem. Instead, it conceives the emerging language and different interdisciplinary viewpoints as interdependent.

Ambiguity can be seen as a major advantage in the emergent phases of dealing with a complex problem. However, in the later phases, a high degree of unambiguousness is generally sought in order to facilitate efficiency in the communication process. The emerging ambiguous phases are highly iterative in nature and the later unambiguous phases are more sequential in nature.

In communicative professional settings, the phenomena of nonverbal communication are of particular interest. Nonverbal communication involves the conscious and unconscious processes of encoding and decoding. Encoding is the act of generating information such as facial expressions, gestures, postures, emotions, haptics, body language, voice quality and also symbols, drawings, and physical artefacts. Decoding is the interpretation of information from received sensations by means of previous experiences (Malandro 1989). Whereas verbal communication is generally a highly structured form of communication, nonverbal communication is characterized by little or no formal structure. The relation between the intended message of nonverbal communication and its interpretation or decoding is therefore a central theme.

A Framing Perspective on Entrepreneurship

Since language is one of the most fundamental human characteristics, the associated research disciplines are both old and extremely comprehensive. It is outside the scope of this publication to engage in a deep theoretical discussion of the various aspects of linguistics. The perspective chosen has been a pragmatic aspect that is considered relevant to build a more nuanced and extended understanding of entrepreneurship by including a combined linguistic and non-linguistic framing perspective.

In an entrepreneurial context, it is relevant to adopt an applied linguistics perspective. Applied linguistics can be defined as “the theoretical and empirical investigation of real-world problems in which language is a central issue” (Brumfit 1997). In an entrepreneurship context, the applied linguistic perspective is therefore discussed within the following pragmatic themes (framed as questions):

1. How does framing support the initial perception of a given problem or solution?
2. How can framing be utilized in practical entrepreneurial processes?

How Does Framing Support the Initial Perception of a Given Problem or Solution?

The extreme uncertainty that characterizes entrepreneurial activities is partly explained by the fact that, most often, both the problem and solution are relatively unknown. As development progresses, the relatively unknown are transformed into relatively known. This transformation is a generic phenomenon in any entrepreneurial process and a linguistic perspective can support the understanding of this process. The challenge has been a part of the more overall discussion focusing on defining a design science (Cross 2001). Herbert Simon is one of the pioneers in this discussion. Simon emphasizes that today's world is mainly man-made or artificial. The consequence hereof is that people involved in designing solutions or understanding problems are mainly dealing with symbols that are received through the eyes and ears in the form of written and spoken language (Simon 1969). It is a particular feature in design processes that the written and spoken language is supplemented with physical and graphical representations of the subjects under discussion. The mixtures of symbols represent either the inner or the outer environment of a problem or a solution. In order to progress with a design activity, the involved person or persons must understand the comprehensive nature of the problem or solution, and, at some point, be able to communicate it. The reason why this is being perceived as a highly challenging problem in entrepreneurial settings is that the process basically is a complex process. The implications of this are discussed in the following section.

Initial Perception of a Given Problem or Solution Understood as a Complex Phenomenon

The traditional understanding of design processes is dominantly positivistic and sequential. This is following an intention of creating a design science from which systematic design methods could be derived. However, the intensive efforts to develop a design science have not yet led to unified understandings and agreements on this. This has led Nigel Cross to loosen up the scope of such efforts. Nigel Cross summarizes the effort in the following way: "So

let me suggest here that the science of design refers to that body of work, which attempts to improve our understanding of design through ‘scientific’ (i.e. systematic, reliable) methods of investigation. And lets us be clear that a ‘science of design’ is not the same as a ‘design science’” (Cross 2001).

A close analogy to seeing a problem or a solution as a complex phenomenon is to see them as ill-defined, ill-structured, or “wicked” (Buchanan 1992). These types of problems or solutions can be characterized as follows:

- There is no definitive formulation of the problem.
- Any problem formulation may embody inconsistencies.
- Formulation of the problem is solution dependent.
- Proposing solutions is a means of understanding the problem.
- There is no definitive solution to the problem.

The characteristics are particularly felt in the initial phases of the process. Goals are vague; constraints and criteria are unknown; and the context is poorly understood. As described by James G. March: “Alternatives are not given but have to be discovered or created. Expectations are not known but have to be developed. That development introduces uncertainty and errors. Desires are neither clear, nor unified, nor stable, nor exogenous to the process of choice” (March 2008). Problems are unlikely to be internally consistent and ways of formulating the problems are dependent on ways of solving them. Cross proclaims that it is less fruitful (and maybe impossible) to develop a unified design science. And as stated earlier, he therefore requests bodies of work representing different types of contributions that, in various aspects, enlighten the design process (Cross 2001). An essential aspect of manoeuvring through these kinds of processes is to have models and understandings of the nature of these complex problems.

Models of Complex Processes

The linguistic perspectives or challenges, in regard to complex problems in entrepreneurial processes, are related to the tasks of perception, articulation, and communication. These are an individual as well as a collective task. From a linguistic perspective, the complexity occurs because there is no defined language available to capture the problem or, conversely, because there are multitudes of interdisciplinary languages that apply to the problem.

An entrepreneur might be able to perform a task or develop a solution without being able to verbalize it. Donald Schön describes this as the ability

to engage in a process of continuous improvements and learning by reflecting on the actions taken (Schön 1983). Schön defines the process as a “reflective practice”. This is a way to describe and understand how skilled professionals learn and progress by deliberate reflective practice rather than from formal learning or knowledge transfer. The detailed processes are described as loops of naming, framing, moving, and reflecting. In many cases, it may be the most important source for professional development and improvement.

The reflective practitioner theory is a mainly an empirically based method of studying complex problem-solving. However, it builds on a constructivist and constructionism paradigm. The constructivist paradigm was developed by Jean Piaget and focused on how humans make meaning and develop language in relation to the interaction between their experiences and their ideas (Piaget 1951). Seymond Papert was a colleague of Piaget and wanted to extend the theory of constructivism to the fields of learning. Papert eventually called his theory constructionism. It included everything associated with Piaget’s constructivism but went beyond it to assert that constructivist learning happens especially well when people are engaged in constructing something external to themselves (Papert 1996).

Knowledge, meaning, and language have a large degree of overlap. Max Boisot has conceptualized this in his “Information Space” framework (Boisot 1998). The information space framework is commonly shown as a cube with the three axes: abstraction, codification, and diffusion. The linguistic perspective would apply to all three axes. Only when the abstract insight has been codified and an appropriate language thereby has emerged can it be diffused independently of the original knowledge-holder.

The distinction between abstract and concrete insight can also be seen in the distinction between explicit and tacit knowledge (Polanyi 1967). Polanyi made the assertion that “we can know more than we can tell”. He states that not only is there knowledge that cannot be adequately articulated by verbal means but also all knowledge is rooted in tacit knowledge. Nonaka and Takeuchi have further contributed to the distinction between explicit and tacit knowledge and have undertaken research into how explicit and tacit knowledge is handled in teams. They assume that knowledge is created and expanded through social interaction, leading to the emergent articulation of tacit into explicit knowledge. This assumption enables Nonaka and Takeuchi to postulate four different steps of knowledge creation: socialization, externalization, combination, and internalization (the SECI model) (Nonaka and Takeuchi 1995).

One of the central elements in dealing with complexity is the confrontation with the perception that problems should be solved through breaking them down into smaller and smaller chunks. Snowden and Boone challenge this

way of thinking by introducing the distinction between complicated and complex problems (Snowden and Boone 2007). Their contribution can be seen as a further development of the Information Space framework by Boisot. Complex problems are messier and more ambiguous in nature; they are more connected to other and often very different problems, more likely to react in unpredictable non-linear ways, and more likely to produce unintended consequences.

Most organizations are designed to deal with a complicated rather than a complex world. Hierarchical and silo structures are perfectly designed to break problems down into more manageable fragments. They are not, however, effective in handling high levels of complexity. Consequently, many institutions and companies are struggling to adapt to a more complex perception of the part of the world that is relevant to them.

The perception and response to complex issues are dependent on the nature of the sense-making process. The sense-making process, on the other hand, is dependent on the perceived nature of the problem. The Cynefin framework proposes an association between the nature of the context of problems and appropriate responses (Snowden and Boone 2007). The framework consists of five domains:

- *Simple*, in which the relationship between cause and effect is obvious and the appropriate approach is *Sense—Categorize—Respond*.
- *Complicated*, in which the relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge, and the appropriate approach is *Sense—Analyse—Respond*.
- *Complex*, in which the relationship between cause and effect can only be perceived in retrospect but not in advance, and the appropriate approach is *Probe—Sense—Respond*.
- *Chaotic*, in which there is no relationship between cause and effect at the systems level, and the appropriate approach is *Act—Sense—Respond*.

Each domain of the Cynefin framework represents different levels of expected achieved practice. In the simple domain, “Best Practice” can be expected. In the complicated domain, “Good Practice” can be expected. In the complex domain, “Emergent Practice” can be expected. The chaotic domain is characterized by time urgency and the approach is similar to the approach for the complex domain. However, due to the time pressure, the outcome is not informed by validated theory and feasibility. Chaos will happen from time to time, but it is normally signified by the lack of time to consider a reflected solution.

For a long historical period, most problems have been categorized and treated as simple or complicated. Consequently, the ability to categorize and analyse have improved. These are the two dominant cognitive activities of the simple and the complicated domain. Seen from a linguistic perspective, each domain of the Cynefin framework has different levels of sophistication of the language needed to address or communicate the problem or opportunity at hand. In an entrepreneurial project, the problems or opportunities addressed are, per definition, characterized by a high degree of uncertainty. In order to deepen the understanding hereof, a language is needed. And, in order to communicate and discuss the understanding, furthermore, a shared language is needed. The high degree of uncertainty induces ambiguity that can support the explorative processes but also create barriers for interdisciplinary involvement and communication. The complex domain of the Cynefin framework can facilitate open-ended exploration in which the language needed will emerge as a result of exploring by probing and reflecting upon the outcome. The challenge is that the human language and meaning changes and it can change very fast based on context. The Cynefin framework contributes significantly to the understanding of and the ability to deal with complex problems. Steve Blank proposes a similar way to deal with complexity (Blank 2013). His empirical basis is small entrepreneurial start-ups. Blank states that lean methods are changing the language that start-ups use to describe their work. The approach is a continuous iterative process where hypotheses are followed by validation and pivots according to the learning and insights generated. As the continuous process moves on, the language associated with verbalizing customer needs and product features emerge.

O'Connor and her associates have developed an approach that has a number of similarities to the work by Steve Blank (O'Connor et al. 2008). The iterative process is here driven by these questions: "What do we know?" and "What do we know that we don't know?" When iterating, the initial questions are repeated and new challenges emerge in parallel with the increasingly nuanced language needed to explore the problem. During the process, the questions are categorized according to the type of problem: technical problems, customer-insight problems, business model problems, or competence problems. After each iteration, the identified problems are prioritized and thereby the approach offers a structured learning process aiming at exploring a given area.

The Power of Prototyping

In many cases, people restrict themselves to spoken language as a means of articulating complex problems. However, spoken language has a large number of limitations and efficient communication therefore needs various supplements to ensure both richness and nuances in articulation and in perception. In most practical entrepreneurial cases, the spoken language is supplemented with illustrations and nonverbal communication (body language, voice tone, facial expression, etc.). Psychological studies have revealed that the neutral spoken words might count for less than 10% of the perception (Mehrabian and Ferris 1967). Even though the setup of such studies is frequently disputed, it is generally accepted that the impact of the neutral spoken word is much less than the contextual and supporting factors.

The systematic use of prototypes is an essential competence in conceptualizing. Schrage praises the many aspects of physical prototypes and models for their ability in speeding up and nuancing processes. He also refers to a large number of specific examples of great breakthroughs supported by the involvement of prototypes (Schrage 2000). Schrage argues against the common assumption that “great teams make prototypes” and suggests that, instead, one should realize that “prototypes make great teams”. The making of great teams goes beyond the individual team but helps create teams out of people with different backgrounds by creating “shared space”. Shared space is the common ground where people can meet on even terms and objectively discuss matters. This is essentially the role of a language, and the prototype can therefore be seen as an important element in the emergence of the language associated with the product or service being developed.

The intensive use of prototypes in product development projects has been promoted with Design Thinking. It is emphasized that the primary role of the prototypes is not to present a light version of the final solution but rather to learn about the strengths and weaknesses of an idea and to identify new directions that further prototypes might take (Brown 2008). This can be seen as an ability of the prototypes to create a language that aims at involving both potential customers and people with various competences (and therefore different languages).

How Can Framing Be Utilized in Practical Entrepreneurial Processes?

Framing and the associated emergence of rich languages can be powerful tools in the entrepreneurial process. However, there are still a number of research questions that need to be addressed and elaborated in order to improve the efficiency of the framing concept. Some of the essential research questions are unfolded in this section.

The entrepreneurial process can be seen as a series of iterative processes that are challenging the ambiguously perceived current state. In order to keep the processes moving forward in an efficient and effective way, a number of stimuli are needed. In a linguistic perspective, the whole process can be perceived as a continuous effort towards creating and further developing a satisfying set of interconnected languages that are nuanced enough to both cope with and challenge the various parameters of the problem at hand. These languages emerge as the process unfolds. An essential research question related hereto is this: How can the emergence of interconnected languages and frames be documented in order to support the facilitation process?

Within Design Thinking, the concept of “framing” has been given significant attention (Dorst 2015). Often the activity can be seen as re-framing rather than framing. The challenge is to provide new suggestions to support the process of how a problem can be viewed by changing the perspective. Schön was one of the first to propose the concept of framing in the context of product or service development. He explained the activities of professionals within product development as a series of repeating patterns consisting of naming, framing, moving, and reflecting (Schön 1983). Frames are seen as an essential element in the individual and collective sense-making (Weick 2001). An essential research question related hereto is this: How can framing and re-framing support the perceived collective sense-making?

Normann emphasizes that re-framing is the essential strategic activity of organizations today. The fact that organizations are now abstractions and value-creating networks more than factories and offices is necessitating this re-framing in order to stay competitive (Normann 2001). This is essentially an entrepreneurial activity because it involves a high degree of uncertainty. In order to master this continuous re-framing, the organizations must alter between differentiation and integration. His term for this process is “the process of integration diversity”. This infers that there are multiple frames that coexist and interact. These are dynamic in nature and will alter and change as the process moves on. Normann identifies communication ability to be the central element in the process and he

points to “transitional objects” as central facilitators of the process. Such transitional objects can be scenarios or physical artefacts that both have the role of triggering and stimulating conversations between participants. The new language that comes out of the process of integrating diversity can serve as a selector for the continued process. A central management competence is to be very perceptive to the use of language, and one of the major functions of leadership is the stewardship of language (Normann 2001). An essential research question related hereto is this: How can scenarios and physical artefacts affect the emergence of frames and associated languages?

The various examples of framing and re-framing are characterized by including a number of very diverse frames in order to capture the current complex problem. An essential challenge is therefore how to align these frames and thereby produce breakthroughs in the process. The existing methods to support the process are numerous, and the following focus on presenting some of the most important enablers. The focus is on the essential principles rather than methods in details. Additionally, central research questions for a future effort are suggested later.

Question Asking as Enabler

One of the most interesting elements of the human dimension of the development and creation processes is cognition. By means of thought processes, the persons involved gradually become able to articulate a problem. This is internalized as thoughts within the individuals and externalized in the communication between the participants by means of the emergent language associated with a given problem.

One of the essential drivers in these processes is to ask questions. Aristotle’s fundamental premise was to assume that our knowledge resides in the questions we can ask and the answers we can provide. Questions can be defined as inquiries that are expressed through written or verbal language. The ambiguous nature of the problems makes it relevant to ask different types of questions depending on the perceived needs in different stages in the process. It is therefore relevant to be able to orchestrate the questioning process in order to efficiently and effectively facilitate the exploration of a given problem.

The exploration process proposed by Gina O’Connor is an iterative process in which the questions are repeated and areas to explore are identified and prioritized (O’Connor et al. 2008). The various aspects can be categorized to support a systematic exploration of the problem. Steve Blank proposes a process driven by hypotheses (Blank 2013). The hypothesis-testing process contains the following steps:

1. Here is what we thought.
2. Here is what we did.
3. Here is what we found.
4. Here is what we are going to do next.

This process is also an iterative process. The advantage of the process is that it includes an explicit validation element. In this respect, it resembles a scientific research process. Eris distinguishes between questions that support convergent thinking versus questions that support divergent thinking (Eris 2004). Any development process is characterized by having multiple alternative known answers as well as multiple unknown possible answers. Eris emphasizes that the distinction can support the ability to deliberately manage divergent and convergent modes of thinking dependent on the perceived needs.

The convergent questions are described by the question categories that focus on: rationale, function, interpretation, causal explanations, goal oriented, procedures, and expectations. Whereas the divergent questions are described by the categories that focus on: proposals, negotiation, enablement, method generation, scenario creation, and ideation (Eris 2004).

The distinction between the divergent and convergent mode is particularly useful because it can support a purposeful facilitation process. An essential research question related hereto is this: What methods that promote the balancing of divergent and convergent questions can be developed, and would their application improve performance of entrepreneurial teams?

Improvisation and Intuition as Enabler

Intuition or improvisation is often mentioned by participants of a development project as enablers when asked about how an idea came up. The two concepts are frequently confused and the confusion leads to difficulties in the attempts to include them in a specific process.

Intuition can lead people with experience to make relatively fast decisions without having to compare options. This can happen under time pressure, high stakes, and changing parameters (Gladwell 2005). Seen from a linguistic perspective, this poses a challenge since the intuitive person is not necessarily able to frame or verbalize the logical reasoning that justifies the proposed decision or solution. This complicates the involvement of other participants due to the lack of a shared language.

Though intuition poses certain challenges, it is a frequently used means when organizations have access to experts within the relevant field. The challenges of involving others can, to some extent, be solved by some of the

question-asking methods as described earlier. Ambiguous sentences imply different meanings from the same phrase structure (Eris 2004).

Some authors dispute the intuition phenomena. Simon states that “[t]he situation has provided a cue; this cue has given the expert access to information stored in memory, and the information provides the answer. Intuition is nothing more and nothing less than recognition” (Simon 1969).

Kahneman breaks down thinking into two modes or systems. Slow thinking is the system that people normally think of as thought in the strictest sense. It is deliberate and conscious, and people naturally feel as though they are in control of it. This system is in play when they actively consider a decision. Fast thinking, by contrast, is automatic and unconscious, and hums along continuously in the background. It constantly surveys the environment and processes the incoming stimuli with high speed. The problem is that the fast-thinking system is the dominant system and this leads people to make decisions that are not thoroughly validated (Kahneman 2011). In particular, Kahneman warns about expert intuition. Expert intuition can certainly be very accurate. There is also a trap here, though, for an expert’s feeling of confidence can also cover intuitions that come from much more dubious sources (e.g. incomplete information or substitution). And there is often no certain way to tell just where our intuitions are coming from (Kahneman 2011).

Duggan is also critical in regard to the expert intuition concept. He proposes a concept called “strategic intuition” that is more in line with improvisation than with intuition. He demonstrates that a significant number of seemingly intuitive breakthroughs are better understood as the crossing of existing knowledge frames (Duggan 2007). By utilizing experts more as interpreters, the potential weakness can be limited. Their inputs can be perceived as input to an improvisation process that involves more people and thereby triggers a positive critical view on expert statements (Verganti 2003). An essential research question related hereto is this: Can the broad term intuition be defined more tangible by a more specific usage of the framing concept?

Metaphors and Mixed Medias as Enabler

People involved in development activities use a variety of communication media when engaged in the process. Gesturing, interaction with physical artefacts, sketching, and speech are some examples of potential communication medium. The essence of the LEGO Serious Play (LSP) method (see Vignette 4.1) is building on the complex interplay between the hands and the brain (Wilson 1998). In the neural sciences, this interplay has been illustrated in a more popular way

by a grotesquely disfigured human body named “Homunculus”. Homunculus is a physical representation of the portion of the human brain that is responsible for the exchange of sensory information from the different parts of the body (Jensen 2005). The resulting image is a grotesquely disfigured human with disproportionately huge hands (and fingertips in particular), lips, and face in proportion to the rest of the body. Because of the fine motor skills and sense nerves found in these particular parts of the body, they are represented as being larger on the homunculus. A part of the body with fewer sensory and/or motor connections to the brain is represented to appear smaller. Though the homunculus is a gross oversimplification of the human neural system, it is useful in order to understand why the process of building and engaging with the hands and fingers stimulates brain activities and thereby the imagination.

The LSP method can be seen as an overlaid language that serves as an integrator between the many diverse languages that characterize the various cross-disciplinary profiles and the practical experiences of the participants (Bergen 2012). The combination of the physical nature of the bricks and the narratives associated with the models representing a relevant complex problem can provide a rich metaphorically supported communication. These metaphors will allow the participants to tap into their brains and model the already existing or emerging thoughts in a language that can be communicated. In many

Vignette 4.1 LEGO Serious Play Method

The method “LSP” is a comprehensive concept that combines medias and the enabling concepts mentioned earlier in a seemingly simple process that involves building models that can represent very complex and ambiguous problems with LEGO bricks (Kristiansen and Rasmussen 2014).

In practice, LSP is a facilitated workshop, where participants are asked different questions in relation to a specific project, problem, and/or task. The participants answer these questions by building symbolic and metaphorical models of their insights in LEGO bricks and present these verbally to each other. An essential part of the LSP workshop is the non-judgemental, freethinking, and somehow playful interaction between the participants (Gauntlett 2007).

The LSP process has four central elements that build on the hands and brain interplay: (1) construct, (2) give meaning, (3) make the story, and (4) reflection.

In a specific workshop, the participants are initially asked to build their perception of the defined problem. The dogma of the process is “start building”. As the building process progresses, the participants give meaning to the models by tapping into their brains. After the individual assignments, each participant is given time to explain his or her perception of the problem at hand by taking the physical brick model as the point of departure. Other participants will ask about details but will respect the model and the meaning that the individual builder attaches to it. This last part is the reflection part that provides insight both for the individual and the team.

ways, metaphors and frames are comparable concepts (Lakoff and Johnson 1980). The narrative dimension of the LSP method supports communication. And maybe, just as importantly, it promotes and builds trust among the participants. Furthermore, the openness of the speech can promote the drive to seek shared understanding (Løgstrup 1997).

In an entrepreneurial project, there is a need to challenge the views of the concept. The entrepreneur or the entrepreneurial team will typically engage with outsiders in this process. This can be seen as an essential element of the collective sense-making process (Weick 2001). The problem of dealing with collective sense-making can be summarized in four critical research questions in regard to framing:

1. How can framing support a collective exploration process?
2. How can framing support collective concentration and focusing?
3. How can framing support the emergence of a collective understanding?
4. How can framing stimulate the emergence of an individual and collective commitment?

Dealing with these essential challenges is highly dependent on the emergence of frames with associated languages (Schön 1983). In particular, the emergence and further development of shared and sufficient languages is critical since this element is the key in the process of moving the initial abstract idea to a more concrete level. The ability to explore collectively is highly dependent on whether the involved can be put in an open-mode thinking state. This is comparable to be in a state compared to playful. That is the willingness to and the engagement in experimenting with different possibilities that challenge or deepen the perception of a given concept. A number of research contributions emphasize that such a state of the collaborating team need some kind of facilitation (Kristiansen and Rasmussen 2014). An essential research question related hereto is this: How can the framing perspective be integrated more efficiently facilitation of explorative entrepreneurial processes?

The abovementioned enabling techniques and methods can serve as guidelines and inspiration. More recent research contributions suggest that the mix of several enabling techniques and methods is essential in order to create breakthroughs in terms of new frames (Edelman et al. 2012). By facilitating the process with the use of different medias to support the framing and the verbalization of this framing, it has been illustrated that teams are more likely to make radical breaks when they make departures from one media to another. Drawings are considered as powerful means to communicate complex issues.

However, many people express less confidence in their own drawing capabilities, and therefore, other medias are needed to supplement. The LSP method is an example of a potential powerful media to supplement drawings and text. An essential research question related hereto is this: How can the framing process be orchestrated by a specific usage of mixed medias?

A strong indication of a successful facilitation is the emergence of a collective understanding. This occurs when the team adopts, accepts, and further develops frames and the associated languages. In such cases, the impact of the frames and associated languages seems to be related to the metaphoric potential of the supporting medias and representations. When the collective exploration, the collective concentration and focusing, and the collective understanding in rare cases coexist, there seems to be a high potential for substantial collective ownership, and, thereby, a successful entrepreneurial process. However, as specified, there remains a substantial research effort in getting a deeper understanding of challenges that relate to the facilitation process.

Conclusion

The entrepreneurial process is best described metaphorically as a system of spaces rather than a predefined series of orderly steps. The spaces demarcate different sorts of related activities with associated sets of multi-disciplinary competences that together form the continuum of the entrepreneurial process. The glue in this complex process is the framing process that allows participants to get involved and to communicate their insights and contributions.

The specific words, symbols, or physical models are less important than the ability to express the deeper meaning behind them. Words are the tip of a vast iceberg of very rapid unconscious, non-linguistic processes. Language is not thought but a way of expressing thought. However, language systematically influences how people perceive and conceptualize the challenges at hand. In any entrepreneurial process, it is therefore relevant to inquire whether languages that are sufficiently nuanced to address the problems exist or are emerging at a satisfying pace. The inherent dynamic nature of the entrepreneurial processes necessitates dynamic and highly flexible linguistic and non-linguistic means to support both the exploration and the communication processes that are an essential part of the framing activity.

The nature of the entrepreneurial process implies ambiguity and complexity. In a framing perspective, complexity can be seen as an inability of a single language, symbol, or model to describe all the properties of an observed sys-

tem. The entrepreneurial process therefore necessitates multiple framing processes both to explore and to communicate findings and dilemmas. Multiple languages representing the various multi-disciplinary aspects imply ambiguity and multiple frames of understanding. It is therefore necessary to develop approaches that can support the alignment of frames. Such methods are currently only emerging and significantly more research and development is needed.

A too narrow language to support an entrepreneurial process might be insufficient or even damaging. The language can be a cage that prevents the necessary breakthroughs in the process. More integrative approaches are needed in the framing process. The multiple languages needed imply that the processes, in general, have to be facilitated. One facilitated method, the LSP method, is discussed earlier. However, the challenges of facilitating elements of the entrepreneurial processes have not yet been thoroughly developed or researched. Acknowledging the important linguistic and non-linguistic elements in these facilitation processes is an important driver of the further development of the framing process.

In conclusion, it is neither possible nor fruitful to capture all the framing aspects of the entrepreneurial process in one unified science. It is therefore recommended to continue the process of identifying and exploring the different bodies of contributions and to let these findings drive a continuous effort that can preserve a certain level of ambiguity in the involved processes. These collections of different types of contributions can enlighten the many relevant framing perspectives and keep the research and development process going.

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5

Creativity Perspective on Entrepreneurship

Chaoying Tang, Christian Byrge, and Jizhong Zhou

Introduction

Creativity is often perceived as rather static: something that one either has or does not have. However, there are several examples on how to manipulate mental states to temporarily become more creative by using techniques for cognitive stimulation (Gordon 1961; De Bono 1992) and by using processes for structuring the thoughts of individuals and interaction in teams (Osborn 1953; De Bono 1985; Paulus and Yang 2000). More interestingly, research suggests that it may be possible to learn the “rules of creativity” by simple training (Scott et al. 2004; Rose and Lin 1984; Torrance 1972). As such, it is possible to advance the skills of creativity and thus become more creative human beings in all aspects of life including the engagement in entrepreneurial activities. The potential of taking this knowledge into the field of entrepreneurship education is interesting for the development of better entrepreneurs. This chapter discusses the role of creativity training for entrepreneurship education and matters of concern in integrating creativity training in entrepreneurship education. Concepts of creativity and creativity training are reviewed next,

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followed by the examination of the relationship between creativity and entrepreneurship. The integration of creativity into entrepreneurship is then discussed, followed by conclusion and suggestions for potential implications for future research.

Creativity Training

Definition of Creativity

The concept of creativity seems to be relevant to notions of people, processes, products, and situations (Isaksen et al. 2005). Some definitions of creativity have a strong focus on the product. As such, it may be defined as the capacity to produce novel or original work that fits with task constraints (Lubart 1994) or the development of appropriate and novel solutions (Ward 2004). Other definitions have a stronger focus on the process where creativity may be defined as the tendency and the ability of experimentation, trial and error, thinking in nonconventional ways, challenging existing assumptions, and flexibility and adaptability in problem-solving (Roweton 1989).

A person-based perspective often involves a definition of the most important personality traits related to creativity. These include openness to new experiences (Feist 2010), ambition and persistency (Batey and Furnham 2006; Shalley and Gilson 2004), intrinsic motivation (Hennessey 2010), as well as independence and self-confidence (Feist 1998). Individual creativity seems to be influenced by thinking styles, motivation, and culture (Sternberg and O'Hara 1999).

The definition of creativity from the point of view of the situation (or the environment) typically involves the acceptance and influence of ideas. Creativity must somehow be accepted by the audience in order to be defined as such (Csikszentmihalyi 1999). Hereby, environmental factors become central elements such as gatekeepers (Bourdieu 1993; Gardner and Nemirovsky 1991), being born into a system of thought (Sawyer 2006), and the historical openness of the environment (Scarlett 1950). Novelty makes a situation more uncertain for the rest of the group, organization, and society. This may lead to anxiety in the environment (Stacey 1996) thus making it difficult for gatekeepers to simply accept novel ideas. As a result, the creator must also exert some level of persuasion to create understanding and familiarity to the incalculable effects of novel ideas (Kasof 1995; Runco 1995; Bourdieu 1993; Gardner and Nemirovsky 1991).

Empirical studies often define creativity as a novel and appropriate outcome (Amabile 1996), which is often translated into idea development (Ward 2004), new product innovations (Amabile 1996), as well as adapting or improving

existing innovations (Kirton 1987). Research on creativity training is often empirical and it typically takes a product perspective and/or an individual self-perception perspective using methods like divergent thinking tests (Torrance 1972; Hocevar and Bachelor 1989) or self-reporting tests (Tierney and Farmer 2002; Choi 2004). As a result, this chapter defines creativity as the ability and the belief in one's self to produce and elaborate diversified and original ideas.

Definition of Creativity Training

Studies in creativity training can be traced back at least to the 1960s. Freedman (1965) tested whether association training would increase creativity. The results showed that a simple training for a few minutes had significant effects on the score in the Remote Associates Test (RAT) of creativity. More advanced training programs and research methods have been studied since the 1960s. There are no clear divisions in schools of thought on creativity training and researchers often only define creativity while ignoring the part about training. However, it seems that individual researchers design their training programs based on their perspectives in the general field of creativity (Caughron et al. 2011).

One perspective on the definition of creativity training may focus on the purpose. This chapter defines the purpose as the intentional development of creative skills. A second perspective takes its focus on the audience. This chapter defines the audience as pupils and preschoolers, students, and professionals. A third perspective takes a focus on the content of the training. This chapter defines the content as the design of deliberate practice based on one or more theories or methods of creativity. A fourth perspective focuses on the method of delivery. This chapter defines method of delivery as a course or a program of any length that uses domain-specific or domain-general, fictive or non-fictive exercises performed either virtually or physically.

States of Creativity Training

Content of Training

Significant effect was found in five categories for the content of the training: functional training, problem-and-process, techniques and strategies, motivation as well as educational design. The functional training programs are designed to advance a certain number of skills related to creative thinking and behavior. These skills are typically trained one by one or a few skills are trained at a time. Puccio et al. (2007) suggest that these skills include openness for

novelty, tolerance for ambiguity and complexity, visionary thinking and dreaming as well as avoiding premature closure. Lund et al. (2017) further suggest fluency, flexibility, persuasion, and challenging fundamental theories and practices. The Purdue Creative Thinking program (Speedie et al. 1971) is an example of a functional training system using audio tapes and printed exercises as part of the training. The program consists of twenty-eight audio tapes. Each training session includes the following three elements: a two-to-four-minute introduction to a functional principle for improving creative thinking, a ten-to-twelve-minute story about a famous American pioneer, and exercises related to the content of the story.

The problem-and-process training programs divide the creative process into a certain number of steps or phases, each with a specific focus like problem understanding, idea generation, and solution verification. The process is typically performed in groups trying to solve one or more problems. The Creative Problem Solving program is an example of a problem- and process-oriented approach to creativity training. Baer (1988) studies a training program based on creative problem-solving, which has a three-day camp setup. The training program includes the following elements: introduction to the Creative Problem Solving Model including data finding, problem finding, idea finding, solution finding, and action planning.

A third category of training programs focuses on techniques and strategies. This approach introduces simple techniques and strategies and instructs the trainee to apply these while performing creativity exercises. Ridley and Birney (1967) study a program that focuses on five strategies for enhancing creativity. Each strategy is taught using the following elements: introduction to a strategy, like transforming an object using burning, cutting, or painting, and an exercise where the trainee lists unusual uses for common objects like a brick. The presented strategy is applied on the common objects.

A fourth category focuses on motivation. The most important elements of this category are conformity avoidance and intrinsic motivation. Hennessey et al. (1989) study a program that uses extrinsic motivation factors such as reward as triggers of intrinsic motivation (instead of as a trigger for extrinsic motivation). The training program consists of the following elements: trainees are shown a video of two highly intrinsically motivated role models to increase awareness of intrinsic motivation factors and the possibility of distancing oneself from socially imposed extrinsic limitations, discussions between trainees and with the instructor on the motivations factors involved in the conversations of the role models in the video, and an exercise in which trainees are to indicate their preference for a number of school activities and describe their feelings when performing favorite tasks.

A fifth category focuses on the integration of creativity training into educational design. Karwowski et al. (2007) presents a major degree program in pedagogy studies focused on creativity. The first year of the major is similar to other pedagogy studies, while the following four years are specially focused on creativity. A key element in this category is that they have a broader content including, for example, introduction to the psychology of creativity, philosophy of creativity, sociology of creativity, and pedagogy of creativity as well as creative workshops and facilitation hereof. Another key element is the infusing of particular creativity skills into other curricular subjects. This reinforces the application of the learned thinking skills for the trainees.

Purpose of Training

In terms of purpose, studies of creativity training show significant effects in creative skills like motivation (Birdi et al. 2012; Hennessey et al. 1989), problem-solving skills (Birdi et al. 2012), self-efficacy (Parker 1998; Mathisen and Bronnick 2009; Robbins and Kegley 2010; Byrge and Tang 2015), openness to creative ideas (Parker 1998), divergent thinking skills (Robbins and Kegley 2010; Burstiner 1973), and general creative abilities (Cropley and Cropley 2000; Ridley and Birney 1967; Byrge and Tang 2015; Nelson and Lameli 1991; Karakelle 2009; Khatena 1971). Most studies are testing the short-term effects. However, long-term effects from training have been found on idea suggestions in the companies studied (Birdi et al. 2012) and general creativity (Mathisen and Bronnick 2009; Glover 1980). Transfer effects have been found by Cropley and Cropley (2000) and Glover (1980).

Method of Delivery of Training

Studies show significant effect from a wide variety of methods of delivery including ten minutes of training (Freedman 1965; Cunningham and MacGregor 2008; Clapham 1997), thirty minutes of training (Clapham and Schuster 1992), five to eight sessions of training (Burke and Williams 2008), one full day of training (Birdi et al. 2012), and three to six full days of training (Baer 1988; Byrge and Hansen 2013). Karwowski and Soszynski (2008) found that the distribution of the training may have little influence on the effect.

Another part of the method of delivery includes the format of the training. Most training programs use a variety of formats as part of their method of delivery. Therefore, it is not possible to see the significant effect of one or more specific formats. However, studies show significant effect from formats that

make use of creativity theory and discussion (Birdi et al. 2012; Byrge and Hansen 2013; Karwowski et al. 2007; Clapham and Schuster 1992; Hennessey et al. 1989; Byrge and Tang 2015; Mathisen and Bronnick 2009); stories of fictive and real-life role models (Cropley and Cropley 2000; Speedie et al. 1971; Hennessey et al. 1989); creativity tools (Birdi et al. 2012; Speedie et al. 1971); practical exercises and workshop activities (Byrge and Hansen 2013; Byrge and Tang 2015; Birdi et al. 2012; Ridley and Birney 1967; Burstiner 1973; Glover 1980; Khatena 1971; Clapham and Schuster 1992); counseling (Cropley and Cropley 2000); written assignments (Robbins and Kegley 2010); induced positive atmosphere (Clapham and Schuster 1992); improvisational rhythm, relaxation, and stretching (Clapham and Schuster 1992; Nelson and Lameli 1991); acting and role-playing (Karakelle 2009; Kangas 2010; Karwowski and Soszynski 2008); as well as creative movement of the body (Zachopoulou et al. 2006).

Audience for Training

In terms of audience, studies show significant effect for both students (Cropley and Cropley 2000; Byrge and Hansen 2013; Karakelle 2009), pupils, and preschoolers (Houtz and Feldhusen 1976; Khatena 1971), and professionals (Birdi et al. 2012).

There is an extensive amount of research suggesting that creativity may be improved through training (Rose and Lin 1984; Scott et al. 2004; Torrance 1972). Contemporary research should go beyond this question and rather focus on how creativity training works, how it should be delivered, and what exactly is being developed from the training (Scott et al. 2004).

The Relation Between Entrepreneurship and Creativity

Entrepreneurship comprises the characteristics that explain how and why some individuals (or teams) identify opportunities, evaluate them, and decide to exploit them (Shane and Venkataraman 2000). It is the creation of economic activity that brings new products or services into the market, or creates new market opportunities (Davidsson and Honig 2003). Ward (2004) and Manimala (2009) see creativity as an essential aspect of entrepreneurship, and Schumpeter (1934) noted that the development of economy was driven by creative destruction, and that entrepreneurs were the destructors who were

bold, imaginative, and creative. The terms of entrepreneurship, “innovativeness” and “creativity” seem often to be used interchangeably (Amabile, *Creativity in Context* 1996; Ward 2004; Walton 2003). Lee et al. (2004) note that entrepreneurial activity not only requires a supportive and productive business climate, but that it also needs an environment where creativity and innovation can flourish. According to Amabile (1997) entrepreneurial creativity is “the generation and implementation of novel, appropriate ideas to establish a new business or new programs to deliver products or services”. The relationship between being creative and being entrepreneurial includes goal and process, characteristics, competency, and entrepreneurial intention.

First, the goal and process of being creative and entrepreneurial are similar. Creativity concerns the creation of novelty and value. Entrepreneurship pursues returns in the market by creating novelty and value in business, generating new business ideas, and finding new markets for existing and new business models. Entrepreneurs are not only creative in coming up with new ideas for unique and useful products and services, they may also need to be creative in identifying an untapped market niche to promote the products and services as well as to develop creative ways to produce and deliver them to the market, and to develop creative ways to obtain the resources to perform all of these activities (Shane and Cable 2002).

Second, creative people have overlapping characteristics with those of entrepreneurs. The five main characteristics of highly creative individuals include self-confidence, drive to achieve, curiosity, intrinsic task motivation, and independence (Fillis and Rentschler 2010). Similarly, self-confidence, the need to achieve, calculated risk-taking, high energy levels, and perseverance are seen as the top five characteristics of highly entrepreneurial individuals (Fillis and Rentschler 2010). Curiosity often involves going against norms and logic. As such, creative people may face more social risk than the typical financial risk of the entrepreneur. However, the two groups do have apparent overlaps in terms of the tolerance for risk. We often see creatives being motivated in some higher ways due to their intrinsic-oriented factors. This is similar to the high energy levels of the entrepreneur.

Third, creative thinking is a key competency of entrepreneurship. Creative thinking skills are important to be novel in doing business. Characteristics of creative cognition such as flexibility, visualization of future scenarios, and imagination play a central part in an entrepreneur’s ability to see new ways of applying past experiences and constructing alternative strategic directions. Ko and Butler (2007) found that creativity plays a critical role in the entrepreneurial process. Their study shows that entrepreneurs are creative in discovering the relation connecting seemingly unrelated information, and thus creativity

enables them to identify opportunities. This combinative thinking skill can be exploited to develop new product ideas or market niches in the business world (Ward 2004). Fillis and Rentschler (2008) found that the creative skills of using metaphors for rationalizing uncertainty are linked with marketing skills. Morris et al. (2013) identified creative problem-solving as one of thirteen distinct entrepreneurship competencies. Shane and Venkataranam (2000) summarized twenty-three different entrepreneurship behaviors and they argue that it is conceptually possible to differentiate these into two groups of creative behaviors: discovery behavior and exploitation behavior. Discovery is the process of idea generation, opportunity identification, opportunity detection, opportunity development, and opportunity refinement. It aims to find creative ideas. Exploitation includes: legitimizing the startup, acquire resources, combine and coordinate these resources through the creation of a functioning organization, and obtain marketing success (Davidsson 2003). It aims to implement novel ideas and help its venture development.

Fourth, creative people seem to possess high entrepreneurial intention. Entrepreneurial intention means a conscious state of mind that directs attention toward a specific object or pathway in order to achieve the objective (Bird 1989). Creativity and entrepreneurial intentions are both triggered by a person's attitude toward the behavior, as we see with intrinsic motivation. They are also both affected by social norms (Krueger et al. 2000). Zampetakis and Moustakis (2006) found that individuals with a positive self-perception of their creative abilities are more likely to have high entrepreneurial intentions. Another study shows that creativity seems to be an important antecedent of entrepreneurial intentions (Hamidi et al. 2008).

These relations between being creative and being entrepreneurial provide interesting perspectives on the design of creativity training in entrepreneurship education.

Entrepreneurship Education and Creativity

The last two decades have seen an explosion in the number of universities offering entrepreneurship courses and programs in the United States (Vesper and Gartner 1997), in Europe (Johannisson et al. 1998), and worldwide (Fayolle and Gailly 2015; Rauch and Hulsink 2015). Up until 2012, it is estimated that at least 600,000 college students took a class in entrepreneurship every year in the United States (Schramm 2012). Contemporary entrepreneurship education can be viewed according to three different perceptions: as a state of mind, as a matter of behavior, or as a matter of creating specific situa-

tions (Fayolle and Klandt 2006). Similarly, the objectives of entrepreneurship education can be categorized into a three-category framework including: education that focuses on developing understanding about entrepreneurship and enterprise, education that aims to prepare entrepreneurs and motivate learners to start up their own business, and education that equips students with a set of entrepreneurial skills (Galloway et al. 2005; Hartshorn 2002; Gibb 1999; Naia A. et al. 2014a, b). Widespread methods have been used in entrepreneurship education, such as case studies, readings, writing business plans, interviews with entrepreneurs, class discussion, guest speakers, business visits and field trips, internships and working with entrepreneurs, development of business startups, and computer-based learning (Naia et al. 2014a, b).

Entrepreneurship education has been criticized for not improving students' cognitive entrepreneurial skills (Huber et al. 2014) and creative capabilities (Gibb 2011). Scholars point out that an additional goal of entrepreneurship education is entrepreneurial demands for creativity, novelty, and synthesis, together with the traditional academic focus on rigor and analysis (Ko and Butler 2007). The vital skills for entrepreneurs are less about information processing and analysis and rather pertain more to creativity and action (Gibb 1996). Hence, creativity is a potential complement to traditional management education, which highlights analytical abilities.

The importance of developing students' creativity in entrepreneurial education has been explored and identified by several scholars including Ko and Butler (2007), Lourenço and Jayawarna (2011), and Gibb (2011). Creative problem-solving and innovation are key capabilities for entrepreneurs (Sarasvathy and Venkataraman 2011), and many educators are starting to introduce creativity training in their existing curricula. In an analysis of 18 syllabi of entrepreneurship education programs, Fiet (2001) found 116 different topics located in 6 leading topical coverage areas: strategy/competitive analysis, managing growth, discovery/idea generation, risk and rationality, financing (mainly business angels), and creativity. Focus on creativity training in entrepreneurship education rests on the opportunity discovery stage and seems often to ignore the opportunity exploitation stage. Moreover, creativity education and training mostly resort to methods and techniques aimed to increase general creativity. Ko and Butler (2007) criticize the field for lacking a comprehensive exploration into the role of creativity for entrepreneurship education. Hence more focus on the link between creativity and entrepreneurship may be needed (Zhou 2008). Given the state of creativity training and the relationship between entrepreneurship and creativity, it makes sense to study and discuss how to integrate creativity training in entrepreneurship education.

Key Issues in Integrating Creativity Training in Entrepreneurship Education

In making an attempt to integrate creativity training into entrepreneurship education, it is important to notice that creativity is a highly diverse concept and its concepts tend to have different meanings depending on the discipline or practice to which it is related. The following presents some matters of concern to take into account when integrating creativity training into entrepreneurship education.

A Potential Component Perspective

Amabile and Tighe (1993) present a component model for creativity. It suggests that there are three basic components required for an individual to be creative in any given domain or discipline: domain-relevant skills, creativity-relevant skills, and task motivation (Amabile and Tighe 1993). Amabile (2013) also suggests a fourth component that relates to the social environment. Integrating creativity training in entrepreneurship education may require a focus on all four components. The first component, domain-relevant skills, refers to the individual's level of expertise in a specific domain, which includes basic intelligence, talent in the domain, knowledge acquired through education, experience, and technical skills in the domain. It seems one needs some level of domain knowledge to be creative in any given field. In an educational context, domain-relevant skills would normally refer to the major focus of study such as law, medicine, or computer science. However, it would make sense to consider entrepreneurship as another layer to one's focus of study, a layer that imparts the abilities to become entrepreneurial within the domain. Therefore, the first component requires teaching or practice in both the focus of study and entrepreneurship.

The second component, creativity-relevant skills, consists of cognitive and personal thinking styles that are important for producing novel and useful ideas in the domain. Creative cognition is the combining of two or more disparate ideas (Nijstad and Stroebe 2006) or combining various aspects of existing knowledge into new ideas. From a cognitive knowledge perspective, this component should give the competence to combine knowledge in new ways, and, in particular, external diversified knowledge by individuals' remote thinking or divergent thinking (Allen and Cohen 1969; Tang 2016). This component may be advanced through most creativity training programs.

The third component is task motivation. Here, the focus is on the importance of intrinsic motivation. It denotes the performance of certain work activities for inherent satisfaction or pleasure (Ryan and Deci 2000). Intrinsic motivation is the motivation to engage in a task for its own sake without expectation of external rewards. A growing body of research has found that intrinsic motivation promotes employee creativity (Zhang and Bartol 2010). The intrinsically motivated tend to dedicate more effort to the challenges they confront, which leads them to exhibit creativity through self-regulation, increased persistence, and task engagement. This component may be advanced through some creativity training programs and probably also some entrepreneurship training programs.

The fourth component is social environment. Here, the focus is on the environmental factors that may constitute obstacles or stimulants for creativity. Examples of obstacles may include “norms of harshly criticizing new ideas; political problems within the organization; an emphasis on the status quo; a conservative, low-risk attitude among top management; and excessive time pressure”. Examples of stimulants may be “a sense of positive challenge in the work; work teams that are collaborative, diversely skilled, and idea focused; freedom in carrying out the work; supervisors who encourage the development of new ideas; top management that supports innovation through a clearly articulated creativity-encouraging vision and through appropriate recognition for creative work; mechanisms for developing new ideas; and norms of actively sharing ideas across the organization” (Amabile 2013). Amabile presents this component from an organizational perspective, however, in educational programs, it may be possible to diminish some of the obstacles and enhance some of the stimulants in order to provide a creative study environment for participants.

What to Integrate

One question is what kind of creativity training it would make sense to integrate. The vast variety of creativity training programs makes it difficult to get an overview and make a decision on which program or what components to integrate. It is further complicated by the fact that creativity training programs are rarely developed with entrepreneurship education in mind. Lund et al. (2017) present a conceptual entrepreneurship education model that integrates creativity training. It has twenty-two creative and entrepreneurial skills for functional training and an eight-phase combined creativity and entrepreneurial process model. Lund et al. (2017) also suggest competence

relations between the phases of the process and the creative skills needed in each phase. Designers of entrepreneurship education will have to take into account the audience, content, method of delivery, and purpose and will most likely have to develop their own training program for creativity to fit their specific entrepreneurship education.

Domain-Specific or Domain-General Training

Another question to be addressed is whether creativity is a general ability that transcends domains or a range of domain-specific abilities that vary between domains (Tang et al. 2015). The different abilities that underlie creative performance in different domains may have their roots in the different modes of operation and ways of thinking used in the specific domains. Up to now, most creativity trainings have aimed to promote general creativity skills, including creative personality, creative thinking skills, and creative leadership. Among them, creative thinking skills have gotten the main attention.

However, most of them belong to the realm of general soft skills. For example, in 1953, Osborn invented the brainstorming method (Osborn 1953). Decades later, it has developed into a more comprehensive creative process with creative tools: creativity problem-solving (Puccio and Cabra 2009). Its main principles of thought processes include: defer judgment, go for quantity, make connections, and seek novelty. The successors of Osborn working on creative problem-solving believe that creativity is generated by the interaction between knowledge, imagination, and evaluation. Without skills specific to the domain, the general imagination and evaluation skills are difficult to transmit to creativity in real-life domains. Another example is the 3D Didactic training program, which has been suggested by Byrge and Hansen (2014). It includes hundreds of functional embodied creativity training exercises aimed at developing key fundamental creativity skills like fluency, original thinking, flexible thinking, task focus, and no experience of judgment. Byrge and Hansen (2014) specifically suggest using non-domain problems in their exercises in order to increase task focus and to lower the experience of judgment. The same goes for most other creativity training methods: they do not relate to a specific domain; rather, they are domain-general.

We see the same problem in entrepreneurship education: it is rarely designed with the entrepreneurial domain taken into consideration, as in, for example, entrepreneurship in the domain of shipping, food, or tourism. We cannot be sure to what degree these domain-general trainings in creativity and entrepreneurship contribute to domain-specific entrepreneurial activity. It

seems that innovation differs greatly among industries. In software industries, speed-to-market may be important because the dominant innovation style is incremental. Whereas in the biomedical industry, innovation is science-driven and produces more radical innovation. Thus, the creativity needed as part of being entrepreneurial might not be the same across these and other kinds of industries. Designers of entrepreneurship education may have to adjust the creativity training to be applicable to the domain of their trainees.

Where in the Entrepreneurial Process

Sometimes, it makes sense to consider entrepreneurial activity as a process consisting of a number of steps. For each of these steps, the designer of entrepreneurship education will have to consider if and how creativity may be integrated. One step may focus on coming up with a new idea for a product or a service for the new venture. Most would agree that it makes sense to integrate creativity into this step. However, there are a variety of alternative ways to integrate creativity into this step. Other steps in the entrepreneurial process may involve ways of identifying customer segments, ways of producing the product or service, ways of delivering the product or service, ways of obtaining critical resources, ways of persuading key gatekeepers, and so on. Some would argue that creativity may be involved in several of these steps (Shane and Cable 2002) or even in every step of the entrepreneurial process (Amabile 1996; Walton 2003; Ward 2004).

As a designer of entrepreneurship education, it may make sense to consider how to integrate creativity into each of these steps. Byrge and Kristensen (2017) even suggest that creativity could be integrated not only into the course components but also into the teaching and evaluation methods. Thus, designers of entrepreneurship education may have to change the learning objectives in order to be able to evaluate the trainee's creative performance. Learning objectives that may be integrated into entrepreneurship education include understanding contemporary approaches for enhancing creativity, understanding contemporary creativity methods for teamwork and for individual work, knowledge of the generation of original and valuable ideas in the process of designing new ventures, competences to plan and execute creative processes, skills to use tools, and techniques to generate ideas (Byrge and Kristiansen 2017).

Future Research Directions

Extant contribution of creativity training to entrepreneurship education is to enhance trainees' creativity in finding new business ideas, forming novel business proposals, and implement these proposals in practice. To further creativity training's contribution to and integration in entrepreneurship education, further research is needed to study critical entrepreneurship competency that needs creativity. Respective avenues for future research are discussed below.

One avenue would be to test reliability and validity of creative business competency measurement. Future research may explore what the creative competencies trainees need in different ages, in different business contexts, in different entrepreneurial phases, and in particular in relation to the opportunity exploitative stages of entrepreneurial processes. The competence requirements may not be the same depending on one or more of these factors. Psychological research methods would be helpful in answering some of these questions. How to select representative sampling and objectively measure success of entrepreneurship and competency would be a challenge. More empirical studies are required before we comprehensively understand the competency list.

Another avenue for future research would be to explore where creative entrepreneurship competency come from. It might be closely related to personal traits, family background, environments, organization context, or education system. It might also come from experience and observation. It is necessary to understand which factors may be easier to train in a classroom, which may need to be experienced in practical projects or simulations, and which may need other means for development. There is a need to study how motivation for creative production, creative self-efficacy, and entrepreneurial activity relates and may be enhanced as part of entrepreneurship education. Moreover, the study of enhancing creative entrepreneurship competency through action learning programs should gain more attention. Action learning will be useful in achieving training purposes such as team learning and generation of novel and valuable solutions. It is also appropriate for an on-job training program, which aims to enhance employees' creativity, entrepreneurship, and entrepreneurial mind-set.

Another avenue could be to study the effectiveness of different creativity training methods in entrepreneurship education, including studying the relationship between the change of creative cognition and creative motivation. We may need to include questions related to the audience, content, method of delivery, and specific purposes of the training. To answer these questions, it may be useful to apply methods from cognitive psychology such as experimental tests and neuropsychological analysis.

Finally, further avenues for future research to study the role of creativity training in entrepreneurship education could be: how it may be possible to make meaningful evaluations of creative skills in relation to entrepreneurship curriculum and how different forms of evaluation may affect the trainee as well as entrepreneurial process and activities. For creativity, the role of domain-relevant skills seems important. Is that the same for creative entrepreneurship? Is a certain level of expertise in the domain (e.g., shipping and banking) of the entrepreneurial activities needed in order to produce novel and valuable entrepreneurial ventures? It may be necessary to study what level of expertise in a domain trainee candidates should possess in order to fully take advantage of creative skills acquired from creativity training in entrepreneurship education.

Taken together, we believe the future role of creativity training in entrepreneurship education may be affected by scientific findings from above suggested future research directions. More robust research findings will help designers of education and politicians making policy in the field of entrepreneurship education pay attention to the role of creativity training in entrepreneurship education.

Conclusion

This chapter reviews central themes in creativity training and identifies relations and potentials for entrepreneurship education. It defines creativity in terms of the ability and belief to produce and elaborate diversified and original ideas. It defines creativity training as a course or a program of any length that uses domain-specific or domain-general deliberate practice of creativity and fictive or non-fictive exercises performed either virtually or physically for pupils and preschoolers, students, and professionals. It is clear that there is a vast variety of effective creativity training both from the perspective of purpose, content, audience, and method of delivery. The chapter also found that creativity training may play an important role in entrepreneurship education. The relationship is clear from the perspectives of goal and process, characteristics, competency, and entrepreneurial intention. It found that there are a large number of entrepreneurship education programs and that some of these integrate creativity into the curricula. For enhancing creativity, the designer of entrepreneurship education may need to consider both the advancement of domain-relevant skills, creativity-relevant skills, and task motivation. However, it may also be necessary to think about some matters of concern such as where to integrate creativity in the entrepreneurial process, domain-specific or domain-general creativity training, teaching and evaluation methods, as well as what kind of creativity training to integrate.

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Part III

Meso Level



6

Business Model Perspective on Entrepreneurship

Morten Lund and Christian Nielsen

Introduction

In the wake of the global financial crisis, many economies experienced the fragility of even large multinational companies. In many regions, large (Bell and Solomon 2002) companies that traditionally employed many people were either moved or closed down. Within very short time frames, whole industries seemed to leave and with them also the support jobs in the local communities where the workers and their families dwelled. Such instances illustrate a compelling story of the importance of creating new ventures for the subsistence of local economies, and thereby also that of the global economy. Creating growth and jobs is the backbone of any economy and is essentially what sustains our societies. Therefore, countries are also competing against one another on the basis of innovation, start-ups, and providing the best possible conditions for entrepreneurs.

Starting a new company is a delicate matter. On the one hand, the entrepreneur competes with established companies within the given context, and on the other hand the entrepreneurs face the risk of not receiving a worthwhile salary for their efforts. In addition, when an entrepreneur is attempting to start a new venture, there are a lot of unknowns and a lot of uncertainties

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relating to the process and its outcome. Some of these issues might be: Is there a market for my offering? Is there a willingness for customers to pay? How do I contract with partners? Can I get exclusivity or somehow protect my business opportunity? Will I be competitive? Are there alternatives that could put me out of business in no time?

This places a series of harsh requirements on any entrepreneur, something which traditional business thinking seems to handle rather poorly. This is because start-up processes are often chaotic and full of uncertainties. Hence, entrepreneurs need a series of methodologies and techniques that are flexible and adaptive to such processes and which can help them in generating the necessary insights for designing and implementing profitable business models (BMs) atop the business opportunity they have identified.

BMs first gained popularity during the [dot.com](#) bubble. Paradoxically, at the time, the phrase BM was readily applied by companies that had an Internet-based strategy with no immediate revenue streams. In hindsight, we would say these companies had a BM of having no real BM, creating instead a *Fata Morgana*. Therefore, BMs were inadvertently related to something unprofitable. Luckily, this has changed. BMs are now much more closely associated with successful companies such as Apple, Google, Ryanair, Groupon, and Dell, all of which are brilliant examples of well-executed and well-thought-through BMs all the way from the design of the revenue stream to the value proposition, customer lock-in mechanisms, and through to the value stream configuration.

Recent developments within the field of BMs towards understanding, prototyping, and testing assumptions about customer needs have created strong ties to the field of design thinking because of its focus on testing fast, failing quickly, and failing often. It is a mindset which is very applicable to the entrepreneurial process. Lund and Hansen (2014) argue that BM innovation should be an integrated and continuous part of any innovation process because it poses different complementary questions to the entrepreneurs. This somewhat contradicts the process put forth by Verstraete and Jouison-Laffitte (2011) who suggest that the construction of the BM takes place by revisiting the BM in several phases during the start-up process.

On the basis of our empirical insights from previous rigorous research in the field (see Vignette 6.1), we argue that the process of business modelling consists of a series of very different and separable mechanisms that would need to be applied to the entrepreneurial process according to the phase of development and the intended effects. This is a key contribution of the present chapter in relation to the existing literature and, as such, creates an important cross-fertilization between these two fields of research.

Vignette 6.1 Empirical Foundations of the Chapter

The empirical foundation of this chapter is a large-scale research and business development project called the International Center for Innovation (ICI) which was conducted from 2008 to 2014, and, in addition to this, a series of related spin-off research projects involving start-ups from 2011 to 2016. The research in ICI focused on the process of designing, testing, and implementing new business opportunities and BMs. The researchers interacted with companies in the process of forming new ventures by testing applied methods that had the potential to enhance the success rate for entrepreneurs and their business opportunities. Among these methods were the Business Model Canvas (Osterwalder and Pigneur 2010), customer journey mapping, and stakeholder motivation analysis.

The ICI project was initiated as a business development initiative under the auspices of Northern Denmark Region and funded by European Structural Funds. The region had the ambition of giving local entrepreneurs new knowledge and tools to strengthen their growth potential and to cope better with rising global competition. The project took on the particular challenge that many companies in the region were experiencing, that being that their present BMs could not maintain sufficient competitiveness, profitability, and the ability to withstand the pressures of global competitors' rapid copying of their products and solutions nor the development of alternative new products. These challenges were pressing, despite the fact that many of the companies in the region had been working extensively on perfecting their ability to innovate products for many years and generally had a high innovation rate when compared with other regions.

The BM research conducted in the ICI project and the other subsequent projects was based on a close interaction between entrepreneurs and researchers in order to create real innovations, with real impacts on customers. As researchers, we experienced that companies and entrepreneurs did not want us to simply disseminate state-of-the-art BM theory and models. Instead, they wanted the research team to interact with them and to demonstrate how the theories and models could be used in real life. Therefore, great efforts were made to convert the theory of creativity and BMs to be applicable in real-life situations. These projects therefore provided unique action-research-based insights that provided valuable empirical data and gave back to the participants new knowledge related to the understanding of BMs, as well as how to design and test them.

The Field of Business Models

Its Definitions

Defining what a BM is, is an ongoing discussion, although recent studies indicate that there is a nascent maturity in the field (Nielsen et al. 2017a; Wirtz et al. 2016). In 2001, Porter pointed out that the term "business model" seems an inconclusive one: "[t]he definition of a business model is murky at best. Most often, it seems to refer to a loose conception of how a company does business

and generates revenue. Yet simply having a business model is an exceedingly low bar to set for building a company” (Porter 2001, 73). The wide interest in BMs in the wake of the [dot.com](#) boom led to the development of numerous BM definitions (for a thorough review of these, see Jensen (2014)). While BMs at that time were often associated with companies that were not making money, the definitions of what a BM was in that era did not lack the recognition of financial aspects. For example, Bell and Solomon included a distinct profit angle when they stated that a BM is “a simplified representation of the network of causes and effects that determine the extent to which the entity creates value and earns profits” (Bell and Solomon 2002, xi).

Other authors such as Chesbrough and Rosenbloom (Chesbrough and Rosenbloom 2002) provided more comprehensive definitions of what it meant to discuss and analyse BMs, here in the form of six necessary steps that constitute the description of a BM:

- Articulate the value proposition, that is, the value created for users by the offering based on the technology
- Identify a market segment, that is, the users to whom the technology is useful and for what purpose
- Define the structure of the value chain within the firm required to create and distribute the offering
- Estimate the cost structure and profit potential of producing the offering, given the value proposition and chosen value chain structure
- Describe the position of the firm within the value network linking suppliers and customers, including identification of potential complementarities in addition to competitors
- Formulate the competitive strategy by which the innovating firm will gain and hold advantage over rivals

In reality, in the early years, the field of BMs was characterized by a very heterogeneous set of ideas about what BMs were (the definitions) and what it meant to describe and analyse BMs (the frameworks). Moreover, practitioners had very little guidance in their work with innovating the BMs of companies. A breakthrough came around 2004 when Osterwalder introduced the BM as a conceptual tool (Osterwalder 2004; Osterwalder et al. 2005). His framework, or canvas as it is called today (Osterwalder and Pigneur 2010), contains a set of elements (building blocks), describes the relationships among them, and thereby allows for the expression of the business logic of a specific firm. The analysis using the Business Model Canvas leads to a structured description of the value a company offers to one or several segments of customers.

Moreover, Osterwalder and Pigneur's (Osterwalder and Pigneur 2010) framework also describes how the architecture of the firm and its network of partners serve as a platform for creating and delivering this value and relationship capital, in turn leading to the generation of sustainable revenue streams.

One of the game-changing developments was the introduction of the focus on the value proposition towards customer segments (Osterwalder et al. 2005), which plays a vital role in the configuration of a BM and is further described in the Value Proposition Canvas tool (Osterwalder et al. 2014). Here, the articulation between BMs and Steve Blank's work on customer needs, best reflected in his book entitled "Four Steps to the Epiphany" (Blank 2013), is articulated very neatly. Eyring et al. (Eyring et al. 2011) are likewise exponents of this recent customer-centric school of thought in the BM literature. In their study of business configurations in emerging markets (see also Pitelis (2009)), they argue that a good BM starts with understanding the customers. Inspired by Peter Drucker's quote, "[t]he customer rarely buys what the business thinks it sells him", the following recipe is provided:

1. Study what customers are doing with the product.
2. Look at the alternatives to the company's offerings that consumers buy. Investigate a wide range of substitutes for these products, not just what competitors make.
3. Watch for compensating behaviours. Discover what jobs people are satisfying poorly.
4. Search for explanations. Uncover the root causes of consumers' behaviour by asking what people are trying to accomplish with the goods and services they use.

This type of methodology is widespread within entrepreneurship research relating to opportunity spotting and customer intelligence and provides a valuable link between the field of BMs, new venture creation, and design-thinking. As Johnson et al. (Johnson et al. 2008, 7), observes, "[t]here are clearly times, however, when creating new growth requires venturing not only into unknown market territory but also into unknown business model territory". As such, they argue that it is important to consider how and in what ways a firm can "reinvent" its BM. Disruptive changes in technology or other types of innovation might unsettle existing arrangements within a BM. From a BM perspective, this has recently become very evident in the financial sector as well as with significant cases such as Airbnb's disruption of the hotel industry and Uber challenging the taxi industry. In these cases, it is not the technology that causes the disruption but rather the BMs enabled by the technology.

Doganova and Eyquem-Renault (Doganova and Eyquem-Renault 2009) study the role of BMs in the start-up context and argue that BMs are market-oriented tools which entrepreneurs can apply to get from invention to customer needs and thus to the commercialization of innovation. They find that BMs take different forms, varying, for example, from corporate presentations to business plans, and show that the BM plays a major role as not only a narrative about value creation but also as a calculative device that allows entrepreneurs to explore a market potential. Thereby, the BM plays a performative role by contributing to the construction of the techno-economic network of an innovation. Verstraete and Jouison-Laffitte (Verstraete and Jouison-Laffitte 2011) suggest that this construction takes place in an entrepreneurial process where the entrepreneur revisits the BM in several phases.

The assumptions about relatedness between customer needs, value propositions, revenue models, and so on correspond with the notion that BMs are more complex than a simple matter of choosing a revenue model or profit margin scheme. BMs are concerned very much with the configuration of the whole activity system surrounding the value proposition aimed at the firm's customer segment(s). In addition, George and Bock (George and Bock 2011) argue that BMs should lead to the design of organizational structures that can enact the commercial opportunities being targeted.

Once the creative folks have moved on from the BM design process, few people would argue against the necessity of testing and implementing new ideas for potential BM configurations. By implicitly suggesting that the Strategy Map framework of Kaplan and Norton (2001) is the same as a BM framework, which, according to Nielsen and Roslender (2015), is a fair assumption to make. Huelsbeck et al. (2011) suggest that firms' BMs should be statistically validated to ensure that the company is not following a performance measurement system based on erroneous causal assumptions. McGrath (2010) takes a somewhat opposing stance to this testing approach in arguing that it is the use of the notion of BMs to redesign or innovate companies that provides a contribution because this is a "discovery-driven" rather than an analytical approach to understanding new venture possibilities.

Regardless of whether the process is discovery driven or analytical, Nielsen et al. (2017b) suggest that entrepreneurs need a decision support system or structure to assist both the BM analysis and BM innovation process. In referring to a framework for analysing abstraction levels in relation to BMs (Taran et al. 2016), Nielsen et al. (2017b) further suggest that the level of BM configurations holds promise for identifying specific value drivers for each way of doing business. This growing interest in understanding the value drivers of specific BM configurations can also be traced to the fact that new value

configurations seem to outcompete existing ways of doing business, as exemplified earlier in this chapter by Uber and Airbnb. Hence, they suggest a method for identifying value drivers and related performance measures, their validation, and subsequent benchmarking by expanding upon the concept of BM configurations and identifying clusters of key performance indicators (KPIs) connected to each of the 71 identified BM configurations as a starting point for management's identification of relevant KPIs to further the process of BM innovation.

It is evident from this unpacking of the relations between BMs and entrepreneurship, that there are multiple relations between the two fields. It is also clear that the act of business modelling is not a homogenous activity like walking or writing but rather a related and highly varying set of activities. It is also evident that “the act” of business modelling is distinctly different at the very birth of a new venture, than in the testing phases of the same.

The Future of BM Research

While the earlier section highlighted the historical development of the field and its linkages with entrepreneurship, the future directions of BM research are depicted in a timely critique by Nielsen et al. (2017a) who identify four phases of BM research. From these, we can deduce and discuss the most probable future scenarios for BM research in relation to the field of entrepreneurship. Nielsen et al. (2017a) issue a word of caution in that the concept of BMs, which throughout the literature is portrayed as a wonderful and positive invention as a new means of analysis relevant to both academics and practitioners and as a concept that has the ability to develop both existing and new businesses, and hence create value and wealth for the generations to come, should nevertheless make the aware observer slightly uneasy. They suggest that there currently exist four stages of BM research. These are depicted in Vignette 6.2.

Vignette 6.2 Four Stages of Business Model Research

First Stage BM Research: Definitions and Concepts

This stage of research was focused on defining the BM and describing it as a concept. The dominant contributions typically focused on the relations between BMs and other fields of interest such as strategy, management, and organization and used this to define the concept through similarities and differentiation. Practitioner insights also played a significant role in developing and forming the

(continued)

Vignette 6.2 (continued)

field through the suggestions of frameworks and definitions and from an entrepreneurship perspective. This stage of research provided insights into which dimensions an entrepreneur needed to describe in order to fulfil a BM description.

Second Stage BM Research: Innovation of BMs

This stage of research focused on the development, refinement, and optimization of BMs. In this second stage of BM research, we see the beginnings of sounder theoretical work gaining momentum, best exemplified by Teece's (2007) dynamic capabilities article. However, practitioner pieces are also part of the defining matter in this stage. From an entrepreneurship angle, contributions in this stage relate to the ways in which novelty in the way BMs are configured can be achieved, and, in that manner, lead to competitive advantage.

Third Stage BM Research: Design Frameworks and Foundations for Theory-Building

The third stage of BM research focuses on design-frameworks and ontologies. From a practitioner angle, it is dominated by Business Model Canvas contribution (Osterwalder and Pigneur 2010). Using heat maps of the studies across topics and research questions, it is evident that the significant impact of Osterwalder and Pigneur's (2010) design-oriented Business Model Canvas marks the beginning of research into entrepreneurship and start-ups (George and Bock 2011; Doganova and Eyquem-Renault 2009). Both Zott et al. (2011) and Wirtz et al. (2016) argue that future BM research ought to focus on the financial aspects of BMs. Theoretically, this stage is dominated by a special issue in Long Range Planning that aimed at clarifying the links between the concept and related fields and also to outline the contours for future theorizing in the field. Contributions and frameworks for describing and designing BMs were dominant and the relevance of BMs for entrepreneurial purposes took off with the highly customer-centric perspective around the Business Model Canvas and the later Value Proposition Canvas (Osterwalder et al. 2014) by the same author-team.

Fourth Stage BM Research: The Performative Phase

While the performance of BMs has been a recurring theme over time, connecting specific types of BMs with specific performance measures, as well as testing how BM elements predict financial values, are still lacking. Recent published research does start to address these notions (Taran et al. 2016; Nielsen et al. 2017b), but it is too early yet to assess its impact. In this performative phase of BM research, we would expect to see more dominant research addressing barriers to BM innovation and BM implementation and business modelling processes and, therefore, it will also be crucial for the future of entrepreneurship research. In order to mature this notion of business modelling and entrepreneurship, Lund et al. (2017) identify 12 business modelling mechanisms that will be discussed in the next section.

Combining BMs and Entrepreneurship

BM Variables

In our empirical work with entrepreneurial processes and linking the process of configuring BMs with business opportunities, we have identified 12 specific business modelling variables. In Table 6.1, we describe each variable, what it means to be performing it, which types of tools and processes that can be used to perform it, and, ultimately, what applying it to one's BM innovation process should help the entrepreneur achieve.

In the following, the above variables are tied into a start-up process to illustrate their relatedness to the entrepreneurship process. From the output of the theoretical review, and the importance of combining BMs and entrepreneurship, we here propose a conceptual process model for the creation of original and useful BMs through the basic concept of an entrepreneurial process. The model depicted below is based on Lund et al. (2017) and involves eight phases:

1. Preparation
2. Establishing a creative mindset
3. Understanding problem or situation
4. Idea generation
5. Professional input & idea development
6. BM opportunity spotting
7. Value proposition design
8. BM configuration

In these eight phases, it is possible to combine the traits of entrepreneurial skills and business modelling. This conceptual process model for the creation and innovation of BMs through the basic concepts is illustrated in Fig. 6.1. In this model, we have depicted the necessary business modelling skills for each phase on the basis of our empirical insights.

As noted earlier in expanding upon the business modelling mechanisms, this process is not to be understood as a sequential one. The mechanisms naturally have relationships to earlier or later phases of the entrepreneurial endeavour. But some have natural relationships to several of the phases and all would need to be revisited multiple times throughout the process. In fact, every time the process goes to the next phase and introduces some kind of development to the start-up, the remaining elements could potentially be challenged. Hence, we see this more as a continuously circular process than a sequential one.

Table 6.1 Business model variables

BM variable	To do this means to...?	How can it be done?	Why is this important for the resulting BM?
<p>1: Understanding the starting point</p>	<p>All entrepreneurial endeavours have a starting point. Understanding one's starting point means having an understanding of one's environment, contextual factors, contingency factors and the available technologies. In addition, one's personal starting point and situation are also important to take into account.</p>	<p>What types of tools and analyses can be performed to help clarify this point? The process here can be divided into two parts:</p> <p>(a) First, clarifying the factual starting point and establishing scenarios for the variable and unknown parts of the business opportunity. The entrepreneur needs to construct an overview of the factors potentially affecting this opportunity and then there needs to be constructed and prioritized a set of scenarios for their enablement.</p> <p>(b) One needs to evaluate the amount of risk one is willing to take and also the amount of resources in terms of time and capital that one is willing to commit to the endeavour. This would mean consulting one's personal situation and the needs of those in the entrepreneur's life that require and provide support.</p>	<p>Understanding contextual factors is central for success. Without a starting point that defines the scope of the business case and its probabilities, it will most likely fail or derail. Even though these 12 BM variables are not meant to constitute a consecutive checklist, this first step ensures that one has a detailed enough understanding of the premise for configuring a BM. This implies a thorough analysis of the above-mentioned factors; including but not limited to corporate culture, drivers of team-performance, incentives, stakeholders, and so on. Especially for entrepreneurs working with radical new BM configurations, many elements of the BM are flexible and will need to be revisited frequently.</p>

2: Creating a high-performance team

Success in an entrepreneurial endeavour depends more on team performance than individual performance. A team is more than just a group of co-workers, located together, filling out certain functional roles. High-performance teams are interdependent, have a high level of trust, and commit to helping each other out.

High-performance teams differ from ordinary teams in terms of collective behaviour and effectiveness. For achieving high-performance team results, there are multiple factors:

- (a) What skills are needed: This is defined from the need of resources and expected activities for the BM configuration to work. The relationship between resources and expected activities is central to understanding the skills that the high-performance team needs. Often start-ups have overlapping activities and often spare resources to support them.
- (b) Define roles: There is a need to define and structure of the team members' roles quite early in the process. Think of a football team: everyone has their position to play and success grows when all of the players are playing their roles to perfection. This is both within the team internally and also externally towards the remainder of the organization and external partners.
- (c) Define mandate: How are decisions made? Is the leader the dictator, or is it a democratic or consensus-like process? How are decisions challenged and is this acceptable in all phases of the process?

Creating a high-performance team is a fundamental asset for driving the entrepreneurial process. Also, investors often look more to evaluating the team than the business opportunity and the BM.

(continued)

Table 6.1 (continued)

BM variable	To do this means to...?	How can it be done?	Why is this important for the resulting BM?
3: Understanding market mechanisms	<p>“Understanding market mechanisms” refers to gaining knowledge about how sales are made. How does one engage potential clients and at what level of the organization should one enter? Who is really paying for one’s product/service? Here, the entrepreneur should be able to distinguish between customers (those who pay) and users.</p>	<p>Instead of conducting a full-blown competitive landscape analysis, the entrepreneur should develop a “market-type” hypothesis, make a rapid prototype map of the market ecosystem being entered, and use this to identify five to six potential customers and/or users that can be interviewed. One should support this analysis of their needs (jobs-to-be-done) with personal information about these respondents.</p>	<p>Understanding the market mechanisms that one is about to foray into is important, so that one knows how to access paying customers or so that one may be able to disrupt precisely that mechanism later on in the entrepreneurial process.</p>
4: Partnership identification and matching	<p>This entails identifying the potential partnerships; the risks associated with having certain partners perform activities or provide resources to the business opportunity, and how to manage them.</p>	<p>Partners would typically be identified through a stakeholder analysis. However, there might be other, potentially more valuable, partners that need to be recognized in order to configure a successful BM. This can be done by creating partner-type hypotheses in a creative process. Here, one should be asking oneself which partners would be interested in gaining access to future customers, which partners could replace resources or activities in the BM, and which partners could complement the value proposition. Next the entrepreneur should work on figuring out what alignment these partners have with potential customers. Also, do these partners provide access to other potential partners of value? When the partners are identified, one needs to clarify what requirements and protocols that have to be provided for the partner.</p>	<p>It is important to understand and take position on the risk of involving partners. Partners can radically change a BM; the potential gain is high, but the risk needs to be considered. It is important to refresh these thoughts as the BM evolves throughout the entrepreneurial process.</p>

5: Opportunity spotting

Opportunity spotting is a structured exploration of potential situations and conditions favourable for attaining business success. Remember that there are differences between types of opportunities: existing ones, new ones, and optimizing existing opportunities.

Opportunity spotting will inadvertently be based on the insights one has gained from implementing BM variables 1 to 4. One should brainstorm through the three archetypes of opportunities and decide which to focus on going forward. Focus on identifying the largest value gap.

Opportunity spotting is important because it essentially identifies the market gap that is profitable (but does not yet identify how money will be made).

6: Understanding production constraints

A BM will be centred around services and/or products. Understanding production constraints means that one is aware of what might drive scalability or hinder potential scalability. This relates to internal aspects such as finance, capacity, and ethics but also external aspects such as policy and regulation.

The entrepreneur needs to analyse the potential constraints on growing the business. One also needs to analyse the dimensions of increasing and exponential returns to scale in the type of business being considered.

Understanding production constraints is important because it provides a reality check. Together with market mechanisms, this variable gives an indication of the blockbuster potential.

7: Identifying existing BM practices of competitors

Here, one needs to identify and group the potential competitors in the field in question, for example, according to the technology they use, their position in the value chain, or other dimension. Identifying the existing BM practices of competitors goes beyond the value chain positioning and is also different from a traditional market or competitive analysis, because it focuses on the way value is delivered.

The entrepreneur should take traditional industry mapping as a point of departure. When a meaningful segmentation of existing competitors has been made, use the Business Model Canvas to map out each distinct segment.

Identifying existing BM practices of competitors is important because it gives an indication of the value propositions the customers are interested in, and furthermore it provides a sound platform from which to challenge those value propositions.

(continued)

Table 6.1 (continued)

BM variable	To do this means to...?	How can it be done?	Why is this important for the resulting BM?
8: Interaction with potential customers	This means to gather insights about customer needs and jobs-to-be-done, which is very different from product characteristics. This can only be achieved by talking to real customers.	In this phase, the entrepreneur should be applying tools to help the identification of the needs and jobs-to-be-done of users and customers, for example, the Value Proposition Canvas (Osterwalder et al. 2014) and four-steps to the epiphany methodology (Blank 2013). One will need to identify customer pains and gains, and then refine the potential solution and value proposition with experiments and rapid pass/fail tests.	Interaction with potential customers is important because, in the end, they are the ones who make or break the business case.
9: Mapping the customer journey through the firm	Mapping the potential customer journey through the firm helps in understanding where and how to meet the customer. It will affect the firm's internal organization and allow for understanding of the necessary information flows.	For this purpose, the entrepreneur can use the Customer Journey tools articulated in Richardson (Richardson 2010) and Edelman and Singer (Edelman and Singer 2015) as well as at www.servicedesigntools.org .	Mapping the customer journey is important because it helps to reflect on whether the way one treats the customer is in accordance with the value proposition that is asked for.

<p>10: Using successful BM analogies for prototyping</p>	<p>Using successful BM analogies for prototyping is important because they capture the essence of trends. Also, they often capture thousands of hours of analytical work and implementation into a neat story that is easy to understand.</p>	<p>The analogies below can be used to achieve this type of inspiration:</p> <ul style="list-style-type: none"> (a) Is it possible to become a platform-based BM? (b) Is it possible to establish a network-based BM? (c) Is it possible to resell the customer? (d) Is it possible to leverage the strategic partners? (e) Is it possible to create a digital transformation? (f) Is there data around the business that could be sold? (g) Is it possible to create an industry disruption with new technology? <p>The entrepreneur can use the BM Suite to identify which BM configuration, out of the 71 currently identified BM configurations, the company resembles the most. This provides insight into the precise value drivers and value-creating mechanisms that it should be focused on optimizing.</p>
<p>11: BM configuration matching</p>	<p>BM configuration matching goes into much greater detail with the way the BM is configured than, e.g., in the case of working with the analogies in BM variable 10.</p>	<p>This step is important because it provides support to the more detailed analysis of what creates value and what does not. It is also a mechanism to test the viability of the most similar variations of the chosen model which value drivers can be compared with.</p>

(continued)

Table 6.1 (continued)

BM variable	To do this means to...?	How can it be done?	Why is this important for the resulting BM?
<p>12: Testing and validation of identified BM s: i.e., identifying customers' willingness to pay and the business cases</p>	<p>In any business, it is crucial to have product-market fit. Are the customer segments, for example, aligned with the value propositions and is the revenue model coherent? A classic mistake is to create a fantasy revenue model with no correlation to the product-market fit. This mechanism therefore includes notions of financing, budgets, and profit structures.</p>	<p>The product-market fit and willingness to pay can be tested in a customer discovery process, and it should be done numerous times, both with the expected BM configuration and alternative scenarios. It is also relevant to check that the product/service features are not confused with value propositions, as well as checking that the value propositions match customer segment expectations. Remember also to define sales cycles and customer acquisition processes. Are sales repeatable and scalable?</p>	<p>The BM would most likely fail if the revenue model has no correlation to the product-market fit. Hence, this last BM variable is concerned with validating the financial aspects and the business case.</p>

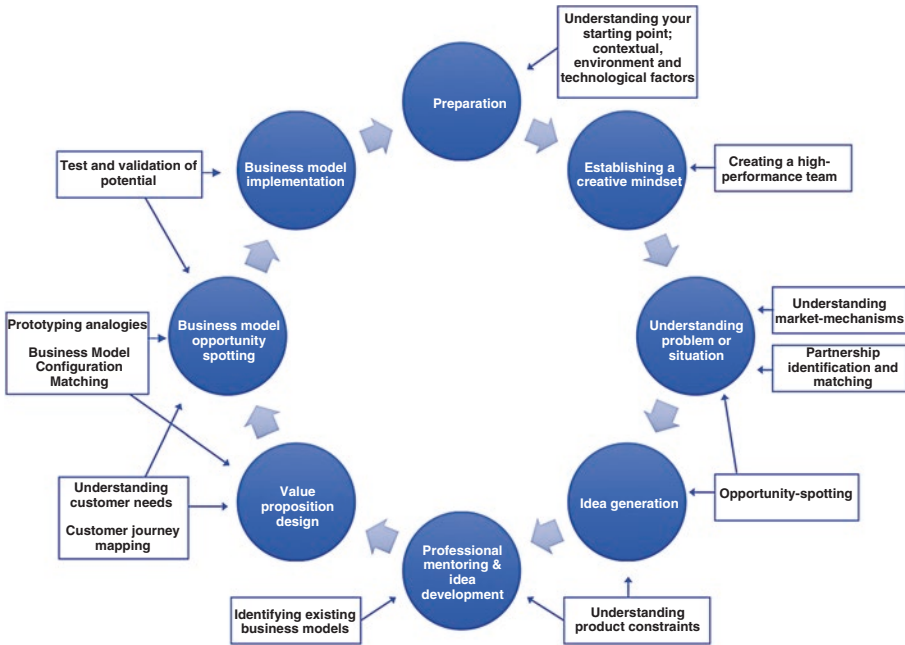


Fig. 6.1 Business modelling mechanisms

Conclusion

The findings in this chapter are relevant for entrepreneurs wanting to focus their business modelling efforts. Not all business modelling mechanisms are equally relevant at all stages of a start-up process and the model provided in Fig. 1 helps to create such an overview. These insights are potentially also relevant for established firms with an interest in creating original and useful BMs. And finally, the structure provided in Fig. 1 is relevant for educational institutions who want to strengthen their current or future entrepreneurship, intra-preneurship, or innovation management curriculum and its organization.

Further, the contribution of this chapter is to set out a number of relevant directions for future research into the combination of BMs and entrepreneurship. We do this by looking at the four stages of BM research identified by Nielsen et al. (2017a) and argue how these may be related to entrepreneurship. This poses the following set of new research questions that can be addressed in advancing the intersection and further cross-fertilization of the fields of BMs and entrepreneurship.

Relevant First-Stage BM Research Questions

Future research could address the limitations of the concept of BMs for entrepreneurship and the potential negative consequences it may have for the development of new ventures. Other first-stage research could concern itself with the different functions that BMs could have in an entrepreneurship setting, for example, as mechanisms of control, development, or sense-making.

Relevant Second-Stage BM Research Questions

Researchers need to further address understanding the barriers and enablers of BM innovation and BM implementation in entrepreneurial processes.

Relevant Third-Stage BM Research Questions

Future research should aim at confirming BM concepts and innovation tools currently intersecting BMs and entrepreneurship through larger-scale empirical sampling.

Relevant Fourth-Stage BM Research Questions

Research should focus on establishing relationships between BM elements, their performance, and financial valuations, for example, by testing the application of BM thinking to investment processes between entrepreneurs and investors as accentuated by Sort and Nielsen (2017). In addition, establishing links between BM performance and a broader understanding of performance measurement identification is expected to support the connection to developing new ventures beyond the idea phase and into an expansion phase because it develops and strengthens the managerial foci.

This chapter provides an important step in understanding and building the relationship between entrepreneurial endeavours and business modelling mechanisms. At present, many entrepreneurs believe they should work on the product first and then figure out the BM later (Lund and Kyvsgård Hansen 2014). We believe this is a misleading assumption. Other research illustrates that the entrepreneur should revisit the BM in several instances during the start-up process (Verstraete and Jouison-Laffitte 2011). While this assumption is more in accordance with the empirical evidence on which this chapter is formed, it lacks the details of which type of business modelling mechanisms

should be used at which stages of an entrepreneurial process. This is precisely the contribution of the present chapter, and a good first step to developing these thoughts can be achieved by developing and testing empirically the model depicted in Fig. 6.1.

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7

Organizational Perspective on Entrepreneurship

Pamela Nowell and Bram Timmermans

Introduction

Many of today's most successful new ventures have been founded and run by teams. The founding partnerships of companies like Google (Larry Page and Sergey Brin), Yahoo (David Filo and Jerry Yang), and YouTube (Chad Hurley, Jawed Karim, and Steve Chen) are so renowned that one can seldom mention the name of one entrepreneur without thinking of the other. Even ventures most frequently associated with a strong lead entrepreneur (e.g., Apple's Steve Jobs, Facebook's Mark Zuckerberg, and Microsoft's Bill Gates) are undeniably a team effort. Team-based entrepreneurship also appears in the emergence of older, more established companies who, because of their age and size, may no longer be associated with their founding team members, for example, Procter & Gamble (James Gamble and William Procter), General Electric (Thomas Edison, Charles Coffin, Edwin Houston, and Elihu Thomson), Mercedes-Benz (Karl Benz and Gottlieb Daimler), and General Motors (William Durant and Charles Stewart Mott).

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The importance of teams in the study of entrepreneurship has long been recognized by entrepreneurship scholars, who not only established that team-based entrepreneurship is more common than earlier believed (Ruef 2010) but also that new ventures founded and run by teams tend to outperform those founded and run by solo entrepreneurs. For example, teams have better access to financial resources, demonstrate better sales and employment growth, show an improved handling of uncertainty and volatilities, and have an increased probability of survival (see Klotz et al. (2014) for an overview). While scholars have consistently recognized the importance of 'the team', entrepreneurship research has continued to focus predominantly on the individual entrepreneur. However, this trend is shifting and interest in the team as a unit of analysis is growing.

Using a variety of methodologies, often relying on business registers, surveys, and case studies, team-based entrepreneurship is mainly investigated in a setting where activities can be classified as high tech and knowledge intensive. This decision is understandable as the complexity of activities in these contexts makes team-based entrepreneurship more common (Kamm et al. 1990). Furthermore, researchers, facing challenges of identification and access, often study teams that are embedded in an academic setting (Grandi and Grimaldi 2005; Clarysse and Moray 2004; Vanaelst et al. 2006; Clarysse and Moray 2004; Bjørnåli and Aspelund 2012; Visintin and Pittino 2014). In other cases, teams are simulated in a higher education setting, for example, business plan competitions (Foo et al. 2006; Wen and Chen 2007; Foo 2011). More recently, family-based teams have entered the stage as an area of team-based entrepreneurship research (Schjoedt et al. 2013).

Over the years, team-based entrepreneurship has been referred to using a variety of different terminology, for example, 'entrepreneurial team', 'founding team', 'new venture team', or 'start-up team'. These terms are used interchangeably and are regularly aligned with the concept of top management teams (Klotz et al. 2014). Regardless of what the phenomenon is called, the question of what constitutes a team in team-based entrepreneurship is a question that has frequently has been posed (Cooney 2005) but only seldom been addressed. Existing definitions are heavily influenced by the definition proposed by Kamm et al. (1990) and these definitions have set requirements regarding teams' size (at least two individuals), timing of entry, ownership and financial stakes, decision-making, and effort. Often, definitions either closely resemble a definition of a top management team or extrapolate from an existing definition of a founder or entrepreneur to encompass two or more individuals, but these definitions tend to define teams by the roles individuals fulfill in the business. Not surprisingly, the majority of empirical studies on

team-based entrepreneurship therefore tend to identify teams by identifying those individuals that are listed (or regarded) as founders, owners, and/or top management team members.

According to Schjoedt et al. (2013), the requirements derived from the earlier definitions are restrictive in terms of team membership, often ignoring important team players whose commitment to the new venture and the team are not captured by such requirements, for example, early employees might not be responsible for strategic decision-making but are considered part of the team as they contribute with crucial resources to make the new venture a success. One might also question the reliance on role identification as a driver of team membership as, contrary to teams in other organizational settings, roles in team-based entrepreneurship are less well defined, the organizations are less structured, and job titles are often of little relevance. Thus, existing definitions, and the ways in which empirical studies identify teams, do not necessarily allow us to identify actual coordinated team efforts nor necessarily identify team membership in the realm of entrepreneurship. In addition, key characteristics of entrepreneurship itself, that is, the emergent, uncertain contexts in which these teams work, have yet to be thoroughly considered in terms of how these contextual characteristics may impact the conceptualizations of the team. Lastly, the question of what constitutes a team or team membership in entrepreneurship is most often delimited by researchers, whereas teams who are the research subjects of these studies are rarely asked for their view.

As such, it is the objective of this chapter to present existing perspectives on team-based entrepreneurship and to consider to what extent these definitions (1) make sense, considering the emergent, uncertain context of entrepreneurship and (2) relate to the perception of actual entrepreneurial teams. We accomplish this by linking our investigation to the more established body of organizational team literature, a research field that is largely, and surprisingly, absent in (team-based) entrepreneurship research.¹ Contrary to definitions of the team in team-based entrepreneurship, definitions of teams in organizational literature (which we refer to as organizational teams) tend to rely more heavily on relational attributes such as identity, commitment, interaction, operational responsibility, and interdependency.

The remainder of the chapter is structured as follows. Following this introduction, the chapter continues to present the different perspectives that exist on team-based entrepreneurship and how empirical studies have operationalized this concept. Afterwards, a more inclusive and bottom-up perspective is proposed to identify team membership in which inspiration is drawn from definitions in the organizational team literature. The chapter continues with a

vignette based on ongoing empirical research that asks entrepreneurs in the field “who is a part of your team, and why?” to provide an understanding of how teams themselves define team membership. The chapter concludes by summarizing our contribution and providing suggestions for future research.

Theory

Teams in Entrepreneurship

Since the early 1990s, there has been an increasing interest in understanding team-based entrepreneurship, an interest that has exponentially increased (see Table 7.1). Aside from a few exceptions, the line of inquiry in this research is primarily empirical relying on surveys, business registers, and case studies. These studies have various angles of interest. First, there are several studies that aim to understand the processes of team formation (e.g., Vyakarnam et al. 1999; Clarysse and Moray 2004; Aldrich and Kim 2007). These studies demonstrate that most team-based entrepreneurship consists of two members (Coad and Timmermans 2014), who often have a relation prior to the establishment of the new business, for example, as family, friends, former colleagues, associated through educational institutions (Vyakarnam et al. 1999) or otherwise, and rely heavily on social networks (Aldrich and Kim 2007). Because such relations indicate some form of social and cognitive proximity, it is not surprising that team formation is mainly driven by homogeneity in terms of the characteristics of team members (Ruef et al. 2003). These previous ties, particularly previous coworker experience, just as with any form of experience, are considered to assist new ventures in dealing with some of the challenges related to the liabilities of newness (Delmar and Shane 2006). Consequently, social ties, particularly previous coworker experience (e.g., Eisenhardt and Schoonhoven 1990; Beckman 2006), have regularly featured as a causal variable when explaining the performance of new ventures, particularly in studies of high-tech and knowledge-intensive new ventures, and have demonstrated having an impact on survival and growth. The interest in family-based new venture teams, despite being a common phenomenon, is a more recent subject of investigation (e.g., Schjoedt et al. 2013), although not as common in high-tech and knowledge-intensive industries. Empirical studies have demonstrated that effects differ, as couples tend to outperform other nonfamily teams, while blood relatives perform worse (Brannon et al. 2013). Coad and Timmermans (2014), while overall demonstrating positive effects

Table 7.1 Team terminology and team identification in empirical studies

Authors	Team terminology	Team identification
Eisenhardt and Schoonhoven (1990)	Founding team	Top managers reporting to CEO
Siegel et al. (1993)	Entrepreneurial team	Not specified
Watson et al. (1995)	Entrepreneurial team	Founding dyads
Barney et al. (1996)	New Venture Team	Founders
Bamford et al. (2000)	Entrepreneurial team	Founders
Lechler (2001)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Boeker and Karichalil (2002)	Founding team	Top managers reporting to CEO
Bruton and Rubanik (2002)	Founding team	Founder identifies other team members
Ruef (2002a)	Entrepreneurial team	Founder identifies other founding team members
Ruef (2002b)	Founding team	Founder identifies other founding team members
Grandi and Grimaldi (2003)	New venture founding team	Founders
Ruef et al. (2003)	Founding team	Ownership
Ucbasaran et al. (2003)	Entrepreneurial founding team	Ownership
Clarysse and Moray (2004)	Entrepreneurial team	Original founding team
Chowdhury (2005)	Entrepreneurial team	Founders/owners
Chandler et al. (2005)	New venture team	Legal team owners after 24 months
Neergaard (2005)	Entrepreneurial founding team	Founders
Beckman (2006)	Founding team	Members with ongoing interaction, interdependence, shared responsibilities and identification as a social entity.
Foo et al. (2006)	New venture team	Business plan competition teams
Vanaelst et al. (2006)	Entrepreneurial team	Founder or CEO identified other team members
Delmar and Shane (2006)	Founding team	Founding team members
Forbes et al. (2006)	Entrepreneurial team	CEO and VP
West III (2007)	Founding team	Founder and top management
Wen and Chen (2007)	Entrepreneurial team	Business plan competition teams

(continued)

Table 7.1 (continued)

Authors	Team terminology	Team identification
Beckman et al. (2007)	Founding team	Founder and TMT members
Wu et al. (2008)	Founding team	Founders
Chen and Wang (2008)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Beckman and Burton (2008)	Founding team	Founder and TMT members
Stam and Elfring (2008)	Founding team	Founded the business and worked full time
Visa and Chacar (2009)	Entrepreneurial team	CEO and two most important employees
Leary and DeVaughn (2009)	Entrepreneurial team	Founders with equity (from charter)
Brinckmann et al. (2011)	Founding team	Founders
Brinckmann and Hoegl (2011)	Founding team	Founder/managers
Iacobucci and Rosa (2010)	Entrepreneurial team	Not specified
Foo (2011)	New venture team	Business plan competition team
Zolin et al. (2011)	Entrepreneurial team	Founding entrepreneurs was asked to relate to unspecified team members.
Bjørnåli and Aspelund (2012)	Entrepreneurial team	CEO and TMT
Ganotakis and Love (2012)	Entrepreneurial founding team	Equity shareholders and involved in strategic decision-making
Steffens et al. (2012)	New venture team	Entrepreneur and up to five owners
Zheng (2012)	Founding team	Key founders
Brannon et al. (2013)	Entrepreneurial team	individuals that own part of the company and actively involved
Xiao et al. (2013)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Zhao et al. (2013)	Founding team	Founding team members (identifier not specified)
Yang and Aldrich (2014)	Entrepreneurial team	Ownership
Eesley et al. (2014)	Founding team	Founders
Coad and Timmermans (2014)	New venture team	Owners and first year employees (dyads)
Visintin and Pittino (2014)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Hart (2014)	Founding team	Founding team members (identifier not specified)

(continued)

Table 7.1 (continued)

Authors	Team terminology	Team identification
Almandoz (2014)	Founding team	Founding team members (identifier not specified)
Kaiser and Müller (2015)	Start-up team	Ownership
Zhao et al. (2015)	Founding team	Founding team members (first year)
Khan et al. (2015)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Packalen (2015)	Founding team	Those who publicly are identified as founder
Zhou et al. (2015)	New venture founding team	Founding team members (identifier not specified)
Muñoz-Bullon et al. (2015)	Start-up team	Ownership
Kristinsson et al. (2016)	Founding team	Top management team
Zhou (2016)	Entrepreneurial team	Entrepreneurial team members (identifier not specified)
Zheng et al. (2016)	Founding team	Founding members according to bank charter
Dai et al. (2016)	New venture team	New venture team (identifier not specified)

on survival but negative effects on growth, demonstrate that, among various family ties, there are strong differences depending on the type of blood relations. Investigating friendship ties is less common, mainly due to the difficulties identifying such relationships (D'hont et al. 2016).

How teams change over their lifetime is a topic closely related to team formation (Ucbasaran et al. 2003; Chandler et al. 2005; Forbes et al. 2006; Vanaelst et al. 2006; Discua Cruz et al. 2013). Resource-seeking behavior and interpersonal attraction are motives to add additional members to entrepreneurial teams (Forbes et al. 2006; Discua Cruz et al. 2013). As the heterogeneity of the team changes, new team members often bring in different types of experience (Vanaelst et al. 2006). The environment also affects member addition, and unstable environments are associated with the addition of team members (Chandler et al. 2005). The exit and entry of members are determined by different team characteristics (Ucbasaran et al. 2003). Larger teams are associated with higher turnover (Chandler et al. 2005), although the identified nature of turnover seems to differ among studies (Ucbasaran et al. 2003; Chandler et al. 2005), most likely depending on the stage of development (Chandler et al. 2005). Teams with higher levels of functional diversity are more likely to add additional members (Ucbasaran et al. 2003), while teams whose members have an employment background in alternative paradigmatic approaches are more

likely to exit (Chandler et al. 2005). Teams consisting of family members are less likely to exit, while diversity in prior entrepreneurial experience is more likely to encourage the exit of a team member (Ucbasaran et al. 2003).

Inspired by the top management team literature (e.g., Hambrick and Mason 1984), the characteristics of the team, for example, experience, composition, and changes in membership, are often linked to the overall performance of the new venture. Start-up experience, industry experience, prior coworking experience, and higher levels of human capital of the founding team are characteristics that are associated with better chances of survival and higher levels of growth (Roure and Maidique 1986; Eisenhardt and Schoonhoven 1990; Delmar and Shane 2003; Beckman et al. 2007; Steffens et al. 2012). Diversity of the team is another factor that is frequently associated with superior performance (Eisenhardt and Schoonhoven 1990; Foo et al. 2006; Beckman 2006; Eesley et al. 2014; Visintin and Pittino 2014) but such effects are far from universal (Chowdhury 2005) and might depend on the environment in which they operate (Eesley et al. 2014), the element of time (Steffens et al. 2012), and the nature of the relationship between team members (Coad and Timmermans 2014).

Besides composition effects, other studies have focused on relational attributes like social interaction (Lechler 2001), relations with outside stakeholders (Neergaard 2005; Stam and Elfring 2008; Vissa and Chacar 2009), and initial relationship capabilities (Brinckmann and Hoegl 2011), which have all shown to be crucial for the success of a new venture.

Team-Based Entrepreneurship: Definitions

When linking team-level characteristics with new venture performance, researchers are confronted with the challenging task of identifying and delimiting who is 'in' the team, that is, who team members are. As Cooney (2005), and more recently Klotz et al. (2014), have mentioned, this is a question that is frequently asked but only seldomly answered. One of the earliest definitions, and subsequently the one that has received most attention and has been most influential, defines team-based entrepreneurship as "two or more individuals who jointly establish a business in which they have an equity (financial) interest. These individuals are present during the pre-start-up phase of the firm, before it actually begins making its goods or services available to the market" (Kamm et al. 1990). This definition, which highlights the underlying criteria of the timing of membership and ownership, and relies heavily on focusing on the particular roles individuals fulfill in the new venture, has been supplemented to include behavioral features such as: contributing with nonfinancial

resources (Cooney 2005), participating actively (Cooney 2005), and involvement in strategic decision-making (Ucbasaran et al. 2003; Klotz et al. 2014).

Other scholars have moved away from the static perception that the delimitation of what constitutes a team needs to involve individuals that have been present at the start. Instead, they take a more dynamic approach allowing team members to enter and exit a new venture even several years after its founding (Ucbasaran et al. 2003; Vanaelst et al. 2006; Cooney 2005; Forbes et al. 2006). Despite these additions to the original definition, these conceptualizations rely heavily on identifying individuals with a specific role in the organization. More recently, critique has emerged of these ad hoc definitions of team-based entrepreneurship since the majority of existing team-based entrepreneurial efforts would not fit these criteria (Schjoedt and Kraus 2009; Schjoedt et al. 2013). These scholars instead propose definitions that include having an interdependent set of skills, sharing a common goal, and shared commitment and accountability to the business. These latter definitions lean more toward the understanding of the concept of a team as established in the organizational team literature, as is discussed further in this chapter.

Team-Based Entrepreneurship: Operationalization

Despite these advancements in developing and extending the definition of team-based entrepreneurship, these advances are not necessarily reflected in how empirical studies use and operationalize teams. Looking at studies on team-based entrepreneurship, one recognizes that these studies use differing terminology when referring to team-based entrepreneurship (see Table 7.1) and are not consistent on how this term is operationalized. The majority refer to ‘entrepreneurial team’, which is also the term that Kamm et al. (1990) use when defining these teams. Other frequently used terms are ‘founding teams’, ‘new venture teams’, or a combination of these terms (e.g., ‘entrepreneurial founding team’, ‘founding entrepreneurial team’, ‘new venture founding team’, or ‘new venture entrepreneurial team’).

Because team-based entrepreneurship research is heavily influenced by upper-echelon research, it is not surprising to observe that the term ‘top-management’ appears in conjunction with the terms ‘entrepreneurial’, ‘founding’, and ‘new venture team’. When reading the various papers, one might have the impression that these terms are used interchangeably; however, one might question whether this interchangeable use is justified. The terminology of ‘founding’ and ‘top management teams’ relates to a particular role individuals have in the venture, and ‘founding’ also implies timing. ‘Entrepreneurial teams’, on the other hand, characterizes a behavior of the team and does not

necessarily refer to a particular role or function attached to this behavior. 'New venture team' relates to the age of the venture, which means that it is more open for the entry of team members in a new venture's infancy phase. What's more, juxtaposing these teams with top management teams may also be quite problematic as they operate in very different organizational structures and differ greatly in their nature and operations (Huovinen and Pasanen 2010).

The above demonstrates how difficult it can be to operationalize the concept of team-based entrepreneurship in empirical studies (Packalen 2015). Consequently, it is often unclear who team members are because many studies only mention that they have contacted entrepreneurial teams without specifying membership (Lechler 2001; Chen and Wang 2008; Hart 2014; Almandoz 2014), or, likewise, team members are broadly defined as those individuals that are involved in starting up a business (Ruef 2002a, b). Others have applied a more pragmatic approach to identifying teams, for example, by identifying particular roles individuals fulfill within the new venture or through business registers and surveys, often during the nascent or early venture stage but also years after the venture creation process (Ucbasaran et al. 2003; Chandler et al. 2005; Clarysse and Moray 2004; Chowdhury 2005; Vanaelst et al. 2006; Forbes et al. 2006). The most prominent roles these studies identify are: co-founder status (Neergaard 2005; Wu et al. 2008; Leary and DeVaughn 2009; Eesley et al. 2014; Visintin and Pittino 2014; Zheng et al. 2016; Zhou 2016), ownership status (Watson et al. 1995; Chandler et al. 2005; Ucbasaran et al. 2003; Chowdhury 2005; Yang and Aldrich 2014), or as having a role as a chief executive officer (CEO) or top management team member of the new venture (Bjørnåli and Aspelund 2012; Kristinsson et al. 2016). There are instances where teams are identified based on several characteristics, for example, a combination of founder and top management team member status (Eisenhardt and Schoonhoven 1990; Bamford et al. 2000; Boeker and Karichalil 2002; Beckman and Burton 2008), or founder and ownership status (Steffens et al. 2012; Brannon et al. 2013).

Based on the dominant definitions and operationalizations of the team-based entrepreneurship concept, there is a strong upper-echelon (i.e., the top management team) approach toward team membership. In following such an approach, scholars assume that individual team members have clear roles and responsibilities and are a member of a clearly defined organizational unit. However, one might question whether such clear delineations accurately represent team-based entrepreneurship. To counter this upper-echelon perspective, some have argued for a more inclusive approach. For example, Gartner et al. (1994), have stated that entrepreneurs, and consequently individuals that are part of a team in an entrepreneurship setting, should not necessarily be identified solely on the basis of having a position as owner, founder, or

investor alone but also on the grounds of behavior (i.e., acquiring resources, setting up business operations, or developing the venture's concept). This means that the team-member concept could be extended to include other individuals that are part of the venture, like early employees, but also individuals that fall outside the traditional organizational boundaries but nevertheless are highly influential, such as advisors and investors. In line with such an inclusive approach, Ruef (2010) talks about an entrepreneurial group which consists of both internal and external members. Others have operationalized such an approach by also investigating which employees have played an important role in the venture (Vissa and Chacar 2009) or by identifying owners and first-year employees in new ventures (Coad and Timmermans 2014; Kaiser and Müller 2015), arguing that the initial employees play an important role in shaping the future of the new venture.

Team-Based Entrepreneurship: Determinants of Team Membership

What all of the earlier approaches have in common is that the perspective of membership in team-based entrepreneurship: (1) exhibits upper echelon bias, focusing only on what might constitute some sort of core in the new venture and (2) is researcher-driven as researchers identify team members or set the boundaries in which team members should be identified (e.g., based on co-founder status or ownership). Admittedly, the role and behavioral features highlighted in existing studies will assist in delimiting team membership, particularly co-founder status, in terms of being part of a new venture's top management team, or according to behavioral characteristics that emerge from such roles as strategic decision-making. On the other hand, there are undoubtedly features of team members that play an important role in determining team membership but that currently are not being considered by the team-based entrepreneurship literature.

In identifying such missing features of team membership, this chapter draws inspiration from the literature in organizational team research. This research field has discussed definitions of teams and team membership extensively but has surprisingly, thus far, only limited interest for team-based entrepreneurship and vice versa (for exceptions, see Schjoedt and Kraus (2009) and Schjoedt et al. (2013)). Based on the review of the empirical research on team-based entrepreneurship, only Beckman (2006) explicitly refers to team characteristics that are inspired from the organizational team literature. In this study, team members are characterized based on ongoing interaction, interdependence, shared responsibility, and identification as a social entity. These are characteristics of effective

teams as identified by Cohen and Bailey (1997). Another definition that seems appropriate to draw on is the definition presented by Kozlowski and Bell (2003), who define organizational teams as “collectives who exist to perform organizationally relevant tasks, share one or more common goals, interact socially, exhibit task interdependencies, maintain and manage boundaries, and are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity” (p. 334).

Contrary to definitions of team-based entrepreneurship, definitions from organizational team literature rely heavily on relational features of team membership such as commitment, collective identity, the relevance of tasks, and interdependence instead of specific roles. Such features are relevant to include as they allow for a more inclusive perspective on team-based entrepreneurship but also allow for a dynamic aspect of team membership because features like commitment, identity, and the relevance of tasks can change over the life span of a new venture. These are features only rarely captured in existing studies on team-based entrepreneurship. The following vignette takes these questions to the entrepreneurs themselves and asks “who is a part of your team, and why?” in order to investigate how entrepreneurs prioritize and think about team membership in the uncertain and emergent context of new venture creation.

Vignette 7.1 How Uncertainty and Emergence May Shape Our Understanding of ‘Team’

Entrepreneurship is an emergent, dynamic process that unfolds over time (Davidsson 2005; McMullen and Dimov 2013; Moroz and Hindle 2012), and while the future is essentially ‘unknowable’ (Mises 1949), uncertainty is exacerbated in the context of entrepreneurship by the presence of novelty: new technologies, products, services, organizations, relationships, markets, and so on (Gartner 1985; Schumpeter 1934). As uncertainty is “a conceptual cornerstone for most theories of the entrepreneur” (McMullen and Shepherd 2006, s. 133), it should be central to any theory, or understanding, of the team.

Our research has followed the dynamics of team membership using a longitudinal multiple case study research design (Eisenhardt 1989) in three new ventures by asking the question “who is a part of your team, and why?” All three of the teams followed in this study had a variety of stakeholders involved in the venture: full- and part-time employees, founders, owners, board members, masters and bachelor thesis interns, consultants, and volunteers. However, the ‘team’ boundary, from their perspective, was based on: (1) ongoing rich and very frequent interaction, (2) a sense of responsibility and involvement in the ongoing strategic decision-making and direction of the venture, (3) a sense of identity as in, “this is ‘us’ and we are in this ‘together’”, and (4) an underlying understanding of commitment. In the words of Pete, CEO and founder of one of the ventures, to be part of the ‘team’ you needed to: “be part of the discussions, be part

(continued)

Vignette 7.1 (continued)

of the ‘should we do this or that’, basically be part of the development of the company as a whole...There needs to be a lot of interaction...we’re such a small team, everything does get discussed, more or less. Technically, Christina (co-founder) and I own shares in the company but Eric (first hire) doesn’t, but I see him as much a part of the team as Christina or myself”.

These relational elements of team membership can be linked to the need to face uncertainty with a united, committed front, and interact often to cope with frequent change and contingency. In the beginning of new venture creation, many aspects of the venture are unknown or ill-formed, such as the need, market, and customer. Because of this, the competencies and the roles needed may also be unknown and evolving. As such, it is through interaction with their environment and each other that entrepreneurs test, iterate, and try out new combinations of people, partnerships, competencies, and roles, hence why so many different kinds of individuals are involved in the venture. Thus, the structure and boundary of a team participating in entrepreneurship is much more fluid and dynamic than what upper echelons or even organizational team literature currently illustrate. The X-teams framework (Ancona et al. 2002), which has a multi-tier perspective, allows us to consider team membership in a dynamic rather than static way. More specifically, the multi-tier approach makes a distinction between core team members, operational team members, and outer network or supportive team members. Such a distinction allows us to consider a more inclusive approach toward team membership and can place an individual in different tiers depending on, for example, his or her role, contribution, and relationships with other team members. For example, a team member such as Eric in Fig. 7.1 may be considered core in some areas of the venture and operational in others, allowing him to occupy multiple tiers simultaneously. Therefore, team members can both shift between tiers or occupy multiple tiers over the life course of a new venture.

Figure 7.1 illustrates movement within these tiers for Beta, one of the ventures interviewed in the study, for the period May 2012–June 2016. Note that while initially only ‘core’ members (founders and first employees) were considered team members, entrepreneurs did acknowledge that board members, advisors, and interns could be operational and supportive team members.

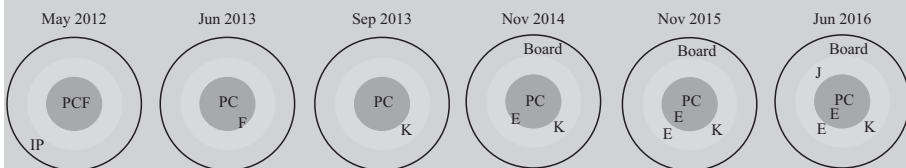


Fig. 7.1 Beta team member mobility*. (*Note: mobility period May 2012–June 2016; IP: Idea Partner (parent company), P: Pete, C: Christina, F: Frederic, K: consultants, Board: Board members, E: Eric, J: John; The authors used pseudonyms to protect the identity/ensure anonymity of individuals)

The vignette demonstrates that the previously mentioned roles and behavioral features can be linked to team membership, lending some legitimacy to existing definitions, in particular the definition provided by Klotz et al. (2014, 227), that is: “the group of individuals that is chiefly responsible for the strategic decision making and ongoing operations of a new venture.” Based on the vignette, we also clearly observe that these roles and behaviors do not cover all dimensions of team membership nor are these roles and behaviors necessarily linked to team membership. Team membership in new ventures appears to be rather inclusive as founders recognize their first employees, board members, advisors, and interns as operational and supportive team members. Furthermore, relational aspects such as rich and frequent interaction, interdependence, commitment, and a shared social identity seem to be important factors for entrepreneurs when delimiting who is a part of their team. Consequently, a more accurate definition of team-based entrepreneurship would be based on a combination of the definition proposed by Klotz et al. (2014), yet acknowledge the relational dimension as the organizational team literature proposes; see, for example, Kozlowski and Bell (2003).

These factors are not currently included in most conceptualizations of the team in entrepreneurship. In addition, since entrepreneurs can consider interns, board members, and other noncore individuals as team members, it seems necessary to have a more inclusive conceptualization of the team, as Schjoedt et al. (2013) proposed, in order to really capture the dynamics and performance implications of the team in the entrepreneurial process. However, contrary to Schjoedt et al.’s argument, we do not agree that all instances where two or more individuals are present constitute a team; that seems to push it too far. The organizational team literature, whose definitions have a more relational character, could be an important source of inspiration when thinking about team-based entrepreneurship. Interestingly, despite the focus on teams, team-based entrepreneurship studies and the organizational team literature have hardly merged, for reasons unknown. This could be because organizational team literature tends to study teams in larger organizational settings, and may not be interested or aware of contexts where the team is nearly equal in size to the organization. Be that as it may, a closer connection between these two fields is desirable in order to understand teams in the realm of entrepreneurship.

The emergent, uncertain character of entrepreneurship also revealed the necessity to take a more dynamic perspective toward team membership, thereby acknowledging previous studies conducted by Ucbasaran et al. (2003), Forbes et al. (2006), and Vanaelst et al. (2006). The findings provide two interesting nuances to this dynamic perspective. First, membership not only changes due to the exit and entry of members into the organization at large,

but individuals can also enter and exit and shift in their team membership while remaining part of the organization at large. Second, the notion of what a team is can change over time, a process that might be a natural process as a new venture grows, defines more roles, and establishes a structure.

This chapter has outlined a bottom-up perspective on the team that is relevant for entrepreneurship scholars as it highlights a dissonance between how researchers see the team and how team members see the team. However, these findings also hold practical relevance for entrepreneurs as team-based entrepreneurs need to make a wide variety of important decisions regarding, for example, hiring, integrating new members, ownership options, organizational culture, and creating and managing roles and areas of responsibility. A first hire may, for example, start out as an operational team member but move into the core over time as he or she takes on more responsibilities, gains financial and/or psychological ownership, and develops a rapport with other members. Founders may want operational members to move into the core to help carry more of the weight and responsibility of developing a venture. Knowing that team members can shift between tiers and being aware of the implications of movement and how to manage and drive these processes is important knowledge for team-based entrepreneurs.

Conclusion

Overall, team-based entrepreneurship cannot simply be defined by looking statically at roles and behavior. Ideally, asking teams to identify team membership would lead to a broader understanding of the notion of team-based entrepreneurship. However, practically speaking, roles and behavioral features are often the only variables available to identify team membership. The questions that emerge are the following: What are the consequences of these overall limitations? What can existing operationalization tell us about team-based entrepreneurship and where do they fall short? And, finally, how can we operationalize a more inclusive approach toward studying these teams?

The recognition that the majority of new ventures are founded and run by teams has caused the interest in team-based entrepreneurship to grow exponentially over the last decades. During this period, definitions have been presented that have acted as a guiding principle for many of the empirical studies that can be found today. Most of these definitions use roles and behaviors to determine team membership and, as a result, the majority of empirical studies identify team members based on co-founder status and ownership. Doubts have arisen as to whether such classification captures team-based entrepre-

neurship; so, the question arises to what extent these definitions capture the team concept within entrepreneurship. This chapter has shed light on how entrepreneurial teams themselves define team membership and has worked to show that current definitions of the team are wanting for more consideration as to the uncertain, emergent nature of entrepreneurship. As a result, a more inclusive and dynamic conceptualization of 'team' is warranted.

Note

1. Interestingly, and to our knowledge, entrepreneurship is also absent from the organizational team literature.

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8

Family Perspective on Entrepreneurship

Allan Discua Cruz and Rodrigo Basco

Introduction

Familia mea, meum fundamentum (*My family, my foundation*) is a Latin phrase that heralds the fundamental importance of family for individuals. The relevance of family for entrepreneurship around the world is undisputed and hence merits close attention. In this chapter, we delve into the family perspective on entrepreneurship, which gravitates around three different yet interconnected research fields: family, entrepreneurship, and family business. Throughout this chapter, we acknowledge the relevance of family for entrepreneurship in its different manifestations, from the creation, discovery, and exploitation of an opportunity by individuals or teams, to the entrepreneurial behavior in established family businesses. By considering the inextricable connection of family and family business literature with entrepreneurship, we highlight previous and novel studies, interpret existing findings, and suggest a future research road map.

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The connection of family and entrepreneurship is believed to be both ancient and persistent to date (Rosa et al. 2014; Hoy and Verser 1994). The influence of family in entrepreneurship has been long considered to fit with the entrepreneurship literature (Westhead et al. 2001a). Family is one of the fundamental reasons for individuals to engage in entrepreneurship (Johannisson 2003) and for family businesses to maintain, across family generations, the entrepreneurial spirit. A growing number of studies published in top entrepreneurship journals and book compilations in the last decade highlight that entrepreneurship research is not shy to embrace the family perspective (Wiklund et al. 2011). Such heightened interest is manifested in four different areas: first, the way family is currently interpreted in entrepreneurship studies; second, the interplay between a family perspective and the entrepreneurship phenomenon over time; third, the theorizing process of a family perspective on entrepreneurship, which highlights its uniqueness in the entrepreneurship field; finally, the family as a context for entrepreneurship. Based on this background, this chapter delves into a family perspective on entrepreneurship.

This chapter highlights three schools of thought: entrepreneurship by families, embedded family entrepreneurship, and entrepreneurship across generations, which bring forward the complex interaction among family, entrepreneurship, and established family businesses. We use these schools of thought to explore and unveil a family perspective on entrepreneurship in three levels of analysis: individual, group/team, and business. The following sections in this chapter are based on a thematic review and synthesis of the literature and highlight the relevance of family and family business research before immersing into the schools of thought and levels of analysis.

Overview of the Phenomena of Family, Family Business, and Entrepreneurship

The Field of Family

Families are seen as a basic and enduring unit of society (Smith et al. 2009). The study of families crosses the borders of several disciplines (multidisciplinary phenomenon). The family is an organization that cares for the maintenance of family life (sex, reproduction, economic affairs, and education of young) and the ways in which families react and adapt to changing situations (McKie et al. 2005). Due to its importance, the field of family has received attention in a wide range of disciplines such as psychology, psychotherapy (von Schlippe et al. 2014), economics (Dew 2008), sociology, and

organizational behavior (Eby et al. 2005), among others. To better understand the phenomenon of family, scholars suggest to acknowledge families as “intimate relationship systems” that impact the way activities are approached by their members (Jennings et al. 2014; Jaskiewicz et al. 2017).

A systemic view of family highlights three perspectives: structural, psychosocial, and transactional (Koerner and Fitzpatrick 2004). The structural perspective focuses on family composition. The psychosocial task perspective emphasizes roles and tasks of family members. Finally, the transactional perspective focuses on the soft aspects related with family identity, emotional ties, and common expectations. These perspectives help to understand the basic demographic, functional, and emotional aspects of family and entrepreneurship (Stangej and Basco 2017). Understanding families from a systems perspective provides a platform to untangle a connection with entrepreneurship.

A widely acknowledged theoretical umbrella to untangle the family phenomenon is the family system theory. Family system theory proposes a holistic perspective of family focusing on the relationships among members (von Schlippe et al. 2014). Under such a lens, the interpersonal relationships within family boundaries, and how these interpersonal relationships are developed, define the macro-systemic environment (the family as an institution) and the individual life of the participants in their cognitive, psychological, and physical development. This perspective is important as it provides the backbone for several organizational models (Olson 2000) as well as supports general dimensions to understand families involved in specific activities, such as business and entrepreneurship.

The General System Theory suggests several interrelated aspects and features of families (von Schlippe et al. 2014) that are relevant for a family perspective on entrepreneurship. First, interactions among family members are based on a circular causality principle, that is, interactions are geared to create and nurture reciprocity. Second, interactions within the system may generate positive and negative feedback which may foster or paralyze family evolution. Third, implicit or explicit goals and objectives may be developed because of such interactions and create shared aims for the group and its members. Fourth, to achieve particular goals, the family relies on rules, patterns, and routines which are formed over time based on members’ interaction. Fifth, an equifinality principle will show that there is no one particular way to achieve the same goals, and thus multiple paths are possible based on the interactions, circular causality, and feedback generated within the family context. Sixth, families are subject to balancing or misbalancing forces within the system (such as internal and external family shocks, e.g., marriage, death, and births). Thus, the system may display homeostasis and disequilibrium-inducing features, respectively. Seventh, the family system has the ability to re-produce its

elements for nurturing and reproducing itself (autopoiesis feature). Finally, the boundaries within the family (i.e., among individuals) determine the limits between the family and its environment.

While a complete review of the family field is beyond the objective of this chapter, it is crucial to note that family system theory has been the main theory applied to understand the relationships that emerge between a family and a business system. Studies focusing on a systemic view of a family may aim to describe, understand, and predict the relevance of family as a group of individuals as well as the cause and effect of individuals being members of a family. Such a view is important as family dynamics are likely to influence family-based economic activities over time. Thus, the family field provides a first step toward understanding a family perspective on entrepreneurship.

The Field of Family Business

Understanding the family business field is relevant for a family perspective on entrepreneurship because it is in the family business phenomenon where family and business logics collide (Basco 2017d). While family businesses have existed for a long period of time and are an outcome of entrepreneurship, defining them is difficult (Howorth et al. 2010). A widely accepted definition proposes that a family business is “a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families” (Chua et al. 1999, 25). The family business field has lacked theoretical underpinnings as researchers’ efforts focused on gaining legitimacy among mainstream academic fields (Pérez Rodríguez and Basco 2011). Therefore, the field mainly focused on the phenomenon of the family business by drawing potential theories from established academic fields, and applying them to understand, interpret, and predict it (for a literature review about mainstream theories applied to family businesses, see Siebels and zu Knyphausen-Aufseß (2012)).

Thus, the family business field has been closer to the practitioner experience since its inception. A systemic view would suggest that, in a family business, the borders between the family and business systems are often blurred, with individual and diverse resources flowing from one system to another (Litz 2008). In this sense, the field of family business focuses on the family effects on the organization at three different levels: the individual level, successful successor development (Lansberg and Astrachan 1994), group level,

communication among family and non-family members (Distelberg and Blow 2010), and firm-level decision-making (Basco and Pérez Rodríguez 2011).

To date, several literature review articles (Basco 2013; Pérez Rodríguez and Basco 2011; Chrisman et al. 2010) have analyzed the evolution of the field. While the family business field has evolved by virtue of the cross-fertilization of ideas from different academic fields (such as psychology, marketing, management, strategy, and business economics, among others) applied to the phenomenon, the family system theory has fertilized the field of family business because its fundamentals have been extended to reinterpret theories that come from different academic fields. That is, any theoretical reinterpretation applied to the family business phenomenon has been approached with the assumption that overlapping systems in a family business (for instance, family, ownership, and management) represent the nature of family businesses. For instance, a reinterpretation of agency theory in the context of family businesses highlights family agency problems such as nepotism, altruism (Lubatkin et al. 2005), and goal alignment (Basco and Calabrò 2017). The reinterpretation of stewardship theory has highlighted the pro-organizational behavior of family business members as linked to the welfare to the firm (Davis et al. 2010). Stakeholder theory reinterpretation has highlighted the particular goals that family businesses pursue and clearly identified who may be influenced by such pursuits (Basco 2017d). A summary of theories that highlight the interaction of the family, enterprise, and family business fields is presented in the following sections.

The Field of Family Entrepreneurship: A Prelude

A family perspective on entrepreneurship supports the view that entrepreneurship is inextricably linked to family (Aldrich and Cliff 2003; Heck et al. 2006). Families are heterogeneous organizations with interconnected lives, norms, and values, that approach the entrepreneurial processes based on deeply rooted connections (Stamm 2016). In this context, a family perspective on entrepreneurship supports the view that economic activities, originating from entrepreneurial pursuits, might be “embedded in family relationships rather than family relationships embedded within economic activities” (Stewart 2003, 388). Family dynamics and family life cycles are often perceived to be “the oxygen that feeds the fire of entrepreneurship” (Rogoff and Heck 2003). Aldrich and Cliff (2003) claim that family changes, transitions, resources, and norms influence entrepreneurship in three relevant aspects: (1) a considerable

proportion of new businesses are founded by two or more related individuals; (2) the founding of a firm may represent a response to changing family relationships or a way to handle family or business life cycles rather than an outcome of the rational assessments of discovered economic opportunities such as marriages, birth, divorce, and death; and (3) during the start-up process of a venture, family involvement plays an important role in the mobilization and provision of diverse resources for individual entrepreneurs.

Therefore, a family perspective on entrepreneurship acknowledges:

- The natural life cycle of families (Danes 2014). Entrepreneurship is influenced by the support that family can provide over time (Jennings et al. 2014).
- The family as a resource provider of physical, emotional, and material resources for entrepreneurship (Stewart 2003). That is, it is an incubator for entrepreneurs and nascent ventures, sharing resources such as building and equipment (Clarysse et al. 2005), emotional connections (Steier 2007), close-knit relationships and obligations (Stewart 2003), interest-free loans, assets, and inexpensive labor, as well as providing access to business-related acquaintances and specialized knowledge (Anderson and Miller 2003; Stewart 2003).
- The family as embedded in the entrepreneurial process (Aldrich and Cliff 2003; Shepherd 2016; Hamilton et al. 2017).
- The family business as a context where entrepreneurship is engaged through time (Howorth et al. 2014; Basco 2014), encouraging new ideas, spin-off access to space in existing buildings, existing machinery or technology, and markets if feasible (Aldrich et al. 1998).
- A family perspective on entrepreneurship also considers the family business as a context where family conflicts may also affect the entrepreneurial (von Schlippe and Frank 2013; Nicholson 2015). Danes and Morgan (2004) highlight that conflicts related to the work/family life balance, and unfair distribution of resources (money, time, energy) between family and business systems may create increasing tensions. Nicholson (2015) advocates that there are unique conflict dynamics that lurk in the context of families that engage in entrepreneurship which make them extremely sensitive to conflicts such as parent-offspring conflict, affinal bonds, and sibling rivalry. Von Schlippe and Frank (2017) propose that, as family members engage in the entrepreneurial process, emotional arenas may develop as the pressures of engaging in creating and subsequently managing a business venture may put pressures on the family members involved over time.

Thus, a family perspective on entrepreneurship embraces the relevance of family as a fundamental social unit, with unique relational systems that can support but also negatively affect entrepreneurship. In the next section, we explore the diverse schools of thought that frame a family perspective on entrepreneurship.

Organizing Knowledge: Schools of Thought

This chapter identifies three schools of thought around the family perspective on entrepreneurship: enterprising families, family embeddedness, and trans-generational entrepreneurship. Table 8.1 shows the general information of each school of thought, highlighting aims and main concepts, approach, level of analysis, assumptions, limitations, and selected works. Our analysis shows overlaps and differences among these schools of thought. Overall, the schools of thought position entrepreneurship as the anchor to rationalize the phenomenon of study and follow similar research strategies in the theorizing process. That is, entrepreneurship becomes the gravity center where the orbiting research strategies are characterized by incorporating family dimensions and family variables into the study of entrepreneurship. This process of theorizing has followed the research strategies of “borrowing and replicating” (i.e., existing entrepreneurship research is replicated by using family business samples) and “borrowing and extending” (i.e., the replication is extended by incorporating family and family business variables into entrepreneurship as the phenomenon of study) (Pérez Rodríguez and Basco 2011).

Each school of thought can be understood by: (1) the level of analysis, such as individual, group, and firm-family level; (2) dimensions, such as types of family and family business dimensions that are incorporated into the analysis, and (3) relationships, namely, the connections and associations among family and family business dimensions and variables that affect entrepreneurship. For instance, while the “Enterprising Family Perspective” is mainly focused on family involvement as an antecedent of family wealth creation and firm wealth creation (Carter 2011; Rubin 2005), the “Family Embeddedness Perspective” incorporates family dimensions to explain a traditional view of entrepreneurship such as new venture creation (Rodríguez et al. 2009). The “Entrepreneurship across Generations” perspective, assuming that families in business have a special mind-set for business growth and strategic entrepreneurial behavior, focuses on family dimensions that affect habitual entrepreneurship by families in business (Rosa et al. 2014) and corporate

Table 8.1 Family perspective on entrepreneurship: schools of thought

Schools of thought	Aim and main concepts	Approach	Level of analysis	Assumption
Entrepreneurship by families Habbershon and Pistrui (2002) Uhlauer et al. (2012) Hamilton et al. (2017)	Enterprising family is a particular type of family who has family as investor mind-set and entrepreneurial strategic methods. Wealth creation across generations. Transgenerational wealth as a continuous stream of wealth that spans generations. Family ownership and its impact on corporate entrepreneurship.	Entrepreneurial approach Family theories Portfolio entrepreneurship	Family owner Family as a team Family as an investor	Agency efficiencies Family ownership group develop entrepreneurial characteristics in order to maintain and increase wealth Family with entrepreneurial objectives and motives
Embedded family entrepreneurship Aldrich and Cliff (2003) Shepherd and Patzelt (2017)	Family embeddedness perspective on entrepreneurship “implies that researchers need to include family dimensions in their conceptualization and modeling, their sampling and analyzing, and their interpretation and implications”.	Entrepreneurial approach by adding the family dimension—sociological perspective to capture family changes overtime—psychological perspective to capture emotions, conflict	Firm and family level Individual level	Two social institutions are linked Holistic perspective Family effect on entrepreneurial process: new business opportunities (opportunity recognition), new business venture (venture creation and resource mobilization)

<p>Entrepreneurship across generations Habbershon et al. (2010) Jaskiewicz et al. (2015)</p>	<p>Corporate entrepreneurship in the context of family business and business family—Studying family business through the lenses of entrepreneurship. Transgenerational entrepreneurship attempt to “address the true nexus between entrepreneurship theory and business family studies as an appropriate way to examine and understand the role and influence of the family in reaching entrepreneurial, financial, and social performance”.</p>	<p>Entrepreneurial approach Family theories Family business literature Business and strategic management perspective</p>	<p>Family and firm level</p>	<p>Family as a context to study corporate entrepreneurship Entrepreneurship as a key to perform and success over several generations</p>
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entrepreneurship in the context of family businesses: transgenerational entrepreneurship (Basco et al. 2018).

Table 8.1 shows that there is a greater emphasis on a phenomenological-driven research approach. There is a limited focus on theoretical-driven approaches (such an aspect highlights the use of “borrow/replication” and “borrow/extending” approaches as strategies for knowledge development. Moreover, the schools of thought identify and use theories from other fields to position and frame their analytical stance. Mainstream theories at the firm level, such as identity theory (Memili et al. 2010), are used to introduce family dimensions into the analysis of the interconnectivity between family, entrepreneurship, and family business. The next subsections explore the individual, group/team, and firm level of influence of a family perspective on entrepreneurship.

The Individual Level

The evidence linking family and entrepreneurship is well-documented at the individual level of analysis. The predominant school of thought at this level is embodied in the work of Aldrich and Cliff (2003), who propose the idea of family embeddedness to highlight how family dynamics influence the initial steps in an entrepreneurial process. It is at this level of analysis where the family field has penetrated the fields of family business and entrepreneurship because it assumes that individuals play an important role by cross-fertilizing ideas, behaviors, and expectations within the blurred boundaries of the family, business, and entrepreneurship systems. That is, by the interaction of family members, their rules, goals, and patterns of behaviors, family affects the way individuals behave as entrepreneurs within the context of the firm or just by starting up their own economic initiatives. For instance, recent findings suggest that a structural perspective of the family, such as family demographic (Rodriguez et al. 2009), a psychosocial perspective of the family, such as role distribution (Pieper 2010), and a transactional perspective of the family, such as kinship ties (Alsos et al. 2014), all affect entrepreneurship.

From a structural perspective, the birth order affects sibling personalities because of their competition for their niche within the family and consequently may determine their entrepreneurial behavior, that is, how they discover and create entrepreneurial opportunities and exploit them. Family is a source of diverse resources that individual family members can use to start or acquire a new venture (Anderson et al. 2005). As family relationships become embedded over time, the structure of a family can contribute with both tan-

gible and/or intangible resources at different points in time. Tangible items revolve around the provision of funds (e.g., interest-free loans), physical assets (e.g., land, plant, or equipment), and/or time and skills at low costs if necessary (Stewart 2003). Access to financial capital, considered a critical resource, is often first acquired within family networks or through their support (Jack 2005). Other, intangible resources, such as socialization into networks linked to family status and social class, provide a starting point for many entrepreneurs (Anderson and Miller 2003). Family relationships can provide access to business-related connections. When members of a family are involved in business, then relationships in diverse networks can provide heterogeneous information, specialized knowledge, and other resources for entrepreneurs of nascent businesses (Stewart 2003). Resources such as information about local markets, suppliers, employees, relevant institutions, and potential first customers can be accessed through extended family members in business (Jack 2005). Dyer et al. (2014) highlight such resources under a “family capital” umbrella. The family capital perspective emphasizes that family-influenced resources are difficult to imitate, can be mobilized quickly, have low transaction costs, and can be transferred efficiently across generations. Yet, while the relevance of family structure is uncontested in the provision of resources, particularly in the initial entrepreneurial steps, prior studies suggest it may later turn into a liability (Church 1993).

Second, from a psychosocial perspective, the support of family in the acquisition of education, skills, and mental models is important for entrepreneurship. Rogoff and Heck (2003) highlight that entrepreneurs rely on different skills and traits linked to formal education in higher institutions or vocational schools. When individuals are members of a family that owns a business, members can develop specific knowledge of industries, technologies, and markets which may influence the entrepreneurial journey (Carr and Sequeira 2007; Davidsson and Honig 2003) of family members. Furthermore, individuals who have participated in existing family businesses have most likely been exposed to an entrepreneurial culture that has shaped, often unintentionally, mental models, heuristics, and an approach to engaging in business activities. The familial status, professional aspirations, and entrepreneurial performance of one family member may have powerful consequences for the career choices of other family members (Stamm 2016). Notwithstanding, Nicholson (2015) warns that, while family support is crucial for entrepreneurial intentions, family tensions such as negative affective relationships, sibling rivalry, emotionally charged interpersonal clashes between family generations, and perceptions of unfairness may hinder support for an entrepreneurial career. When negative emotional relationships between family

members escalate, then a detrimental effect toward support of entrepreneurial objectives may be observed (Kidwell et al. 2012). On the other hand, the parental style (authoritative, authoritarian, and persuasive) affects individual behavior and personality, and specifically their entrepreneurial competences (Schmitt-Rodermund 2004).

Third, from a transactional perspective, one of the key features of the family effect in entrepreneurship gravitates around the relationships that can influence the entrepreneurial process over time. Trust may be most embedded in families. Family ties are supposed to be stronger and more enduring in the business context because they are based on trust, sentiments, and emotions (Hoffman et al. 2006). Trust among family members provides advantages related to emotional encouragement, support in times of crisis, and unity with trusted individuals in alien and hostile environments (Kaslow 1993). The development of kinship ties within the family structure (in the nuclear and extended family) is a necessary condition to support activities such as initial discussions about a business idea, the willingness to provide support and resources, or to procure information, resources, or expertise outside family circles. Such an approach appeals to the close-knit nature of families and the importance given to emotions in transaction exchanges between family members (Stewart 2003). Where such transactions often transcend time and place and relate to both extended structural aspects and distant, yet latent, psychological aspects of families across countries, we find the nascent and often overlooked nature of diaspora families, whose structural, psychosocial, and transactional features facilitate entrepreneurial efforts across cities, regions, and nations (Elo and Hietä 2016).

The Group/Team Level

Until recently, the bulk of entrepreneurship research around a family perspective in entrepreneurship focused on individual entrepreneurs. Yet, the relevance of collective forms of entrepreneurship influenced by family cannot be overlooked (Johannisson 2003). Scholars have challenged the mythic, stand-alone characteristics and approach of the individual entrepreneur and argue that several individuals, acting as a team, could also engage in the entrepreneurial process (Wright and Vanaelst 2009), that is, exhibit a collective entrepreneurial mind-set (Shepherd and Patzelt 2017). Interpreting the family through the lens of system theory, that is, through the interactions of family members through circular causality by creating collective rules, patterns, goals, and expectations, may affect our understanding of group/team dynamics

given that relationships between group members are both “personal and professional” (Dyer 2003, 409). Family or kinship liaisons are a strong bonding agent in teams; it can create higher cohesion, potency, reduction in task conflicts, and shared strategic consensus (Ensley and Pearson 2005). The intricate relationships between a set of family members that engage in entrepreneurial activities, ranging from creating new businesses to developing new products or services in existing organizations, has not gone unnoticed (Iacobucci and Rosa 2010). At the group level, system theory has been used to interpret and reinterpret the use of mainstream theories such as human capital, resource based view (RBV), stewardship theory, as well as leader-member exchange (LMX), which, together, provide a relevant theoretical framework at this level (Discua Cruz et al. 2017).

To date, a collective perspective of family in entrepreneurship has received attention through the study of entrepreneurial and entrepreneuring families (Nordqvist and Melin 2010; Uhlaner et al. 2012), entrepreneurial teams composed of family members (Schjoedt et al. 2013), and families in business (Hamilton et al. 2017). To begin with, entrepreneurial teams composed of family members are not new. The most common entrepreneurial team or entrepreneurial family type is a husband and wife in business. Entrepreneurial teams composed of family members are implicitly present in the foundation of many enterprises around the world (Chrisman et al. 2003; Ucbasaran et al. 2003). The study of family members as a team highlights the relevance of concentrating on subgroups of family members (Uhlaner 2006). Entrepreneurial teams composed of family members portray particular characteristics: they may resemble a team with prior joint experience (Ucbasaran et al. 2003) and may focus on a collective long-term view and the intergenerational outlook of a family (Nordqvist and Melin 2010). Furthermore, their comparative advantage may lie on a strong trust among members and an entrepreneurial culture forged over time through which individual family members reinforce their identity as entrepreneurs, reduce transaction costs, and facilitate a shared approach to entrepreneurship (Discua Cruz et al. 2012).

Recently, a family entrepreneurial team (FET), defined as “two or more family members, related by kinship or marriage, who engage in the identification and pursuit of business opportunities to establish or purchase a firm, have an equity stake in the firm, and have a direct influence on the strategic choice of the firm at the time of founding” (Discua Cruz et al. 2013) represents a form of intra-family entrepreneurship, that is, entrepreneurship by families in business and in the context of existing family businesses. FETs may be geared around a stewardship perspective, which helps explain the behavior of family members minimizing the pursuit of the individual’s interests and

looking after the common good of the family business (Davis et al. 2010). Entrepreneurial stewardship underscores a collective commitment to build existing assets or products within an existing organization (Vega Solano and Discua Cruz 2017) or to the creation of diverse ventures over time that cater to the needs of various family members (Michael-Tsabari et al. 2014). Such a collective approach highlights the influence of a family perspective on entrepreneurship across generations.

As with many areas of entrepreneurship, the topic of family entrepreneurial teams, entrepreneurial and entrepreneuring families, and families in business is still in its infancy. Ucbasaran et al. (2003) warn of reduced cohesion and increased conflict as a result of family members forming a team to pursue opportunities since dominance by individual members with substantial experience over others with less experience may hinder the process. In a team formed by members of two generations of a family in business, succeeding family members may lack the entrepreneurial drive that existed in the founding generation (Westhead et al. 2001a). Experienced family members could potentially dominate the process leading the development of a specific interest in the business at the expense of the objectives and interests of other family members. Furthermore, commitment and loyalty can be expected to be quite varied among family members (Van Auken and Werbel 2006; Sharma and Irving 2005). The diversity of FETs can be as varied as the diversity of individual objectives pursued by family members (Discua Cruz et al. 2017). While some FETs may concentrate on the strategic renewal of one firm throughout time, others may go about setting up diverse ventures in sequence or in parallel, and, at the same time, while some may prefer to continue as a tight unit, others may reshuffle their composition based on family dynamics or disband due to latent and unaddressed tensions.

Business Level

Entrepreneurship research incorporated the firm level when scholars began exploring entrepreneurial activities within an organization. This is often studied under the concept of corporate entrepreneurship. Corporate entrepreneurship is the set of activities carried out within an existing organization to create a new firm (corporate venturing), to engage in strategic renewal, and/or to innovate within existing organizations (Sharma and Chrisman 1999). Recently, corporate entrepreneurship has been integrated into family business research as a particular way in which family businesses are able to survive, that is, in transgenerational family businesses.

The interaction between research on family business and corporate entrepreneurship is an attempt to decode the family effect on corporate venturing, renewal strategies, and innovation. This research line emerged because family participation in the firm (family members' involvement in ownership, governance, and management arenas) affects the way an organization creates, develops, and allocates resources (Cucculelli et al. 2014) and strategically competes (Basco 2014) because of the set of specific goals, priorities, and interests brought by family members into the firm (Basco 2017d). This line of thought was transferred to corporate entrepreneurship research to account for the family effect. In this context, studies have focused on explaining: (1) to what extent family dimensions affect corporate entrepreneurship and (2) to what extent family dimensions moderate the relationship between corporate entrepreneurship and firm performance.

First, regarding the family effect on corporate entrepreneurship, this line of research has been the most common path to link the research of family, family business, and entrepreneurship. Scholars have theorized about the direct impact of family variables on entrepreneurial orientation (e.g., Short et al. 2009; Garcés-Galdeano et al. 2016; Sciascia et al. 2015), searching for opportunities (Patel and Fiet 2011), or business growth (Alsos et al. 2014). Yet, the family effect studied in corporate entrepreneurship is often reduced to a set of a few family variables (e.g., a dichotomy of family vs. non-family businesses, family ownership and family management, and generational involvement).

By considering the differences between family businesses compared with non-family businesses, comparative studies were the most basic research technique at the family-firm level. Most research at this level is exploratory in nature, phenomenological driven, and mainly built on the assumption that different types of ownership, management, and governance shape decision-making, specifically corporate entrepreneurship behavior. Even though the distinction between family and non-family businesses showcased differences in firm behavior, findings are limited in explaining why the differences among firms emerged. Extending this perspective in order to overcome this limitation, an additional group of studies argued that family businesses are not homogeneous and conjectured that the heterogeneity of family businesses matter. In this sense, studies introduced different variables to capture family business heterogeneity such as the varying degree of family involvement or generational participation (Kellermanns and Eddleston 2006).

Therefore, because of contradicting findings about the direct effect of family variables on corporate entrepreneurship, the most promising research path is the one that combines the family effect on entrepreneurial behavior with additional internal and external dimensions. Regarding the internal dimensions,

an incipient line of research is being developed by introducing a behavioral perspective (Sciascia et al. 2015). For instance, the effect of noneconomic goals and knowledge transformation linked to generational stages (Patel and Fiet 2011) on corporate entrepreneurship. Regarding the external dimensions, to understand further the relationship between family and entrepreneurship, scholars suggested to look closely into the context that families, and the environment in which firms, dwell and operate. For instance, while Au and Kwan (2009) showed that “Chinese entrepreneurs seek initial funding from their family rather than from outsiders only if they expected lower transaction costs and lower levels of family interference in the business”, Khavul et al. (2009) showed that, for East-African entrepreneurs, strong family and community ties are important in the creation and development of firms. In the case of minority groups in particular contexts (e.g., Hispanic communities in the US) (see Fairlie and Robb (2007)), family social capital was an important aspect for entrepreneurs to feel prepared to tackle the entrepreneurial process and take the first step toward new venture creations (Chang et al. 2009).

Second, regarding the moderating effect of family variables (e.g., generational involvement and family commitment), this research line has been an extension of the previous one which measured the direct relationship. Several studies used family moderating variables on the relationship between corporate entrepreneurship and firm performance (Boling et al. 2016) and confirmed the moderator effect of family variables (at the individual level or family-firm level) (Marchisio et al. 2010). This research stream incorporates family variables to contextualize the entrepreneurship phenomenon.

In sum, the theorizing process of the intersection between family, family business, and entrepreneurship follows a “borrow and replication” strategy in which mainstream theories, concepts, and relationships are applied to a family business sample, and a “borrow and extending” strategy, which attempts to go beyond the previous strategy by adding, and therefore, extending, the current knowledge with family dimensions, relationships, and explanations. However, the accumulation of knowledge by using “borrow and replication” and “borrow and extending” strategies have led researchers to extend their aspirations and incorporate a third stage of theory-building process: inverse contribution, whereby new knowledge challenges and transforms the field core and the related disciplines (Pérez Rodríguez and Basco 2011). Here, a few exceptions move the research into a more elaborate theoretical level (e.g., Alsos et al. 2014). For instance, a recent study authored by Jaskiewicz et al. (2015) theorized that entrepreneurial legacy, a family’s rhetorical reconstruction of past entrepreneurial achievement or resilience, motivates incumbent and next-generation owners to engage in strategic activities that foster transgenerational entrepreneurship.

Future Research

The particular and unique pattern of knowledge development and theory-building process in the interaction of family, family business, and entrepreneurship research has shown the embeddedness and connections between them in three different levels. Even though unpacking these relationships has brought a new understanding of the phenomenon of the family perspective on entrepreneurship, it is possible to suggest some new avenues for future research (see Table 8.2). First, a long-standing gravity center in entrepreneurship has been identified. That is, scholars incorporated family and family business dimensions into the field of entrepreneurship in order to extend the understanding of the entrepreneurship phenomenon in its different manifestations. However, the development of the family entrepreneurship phenomenon can benefit from a more balanced approach (for instance, see the model developed by Stangej and Basco (2017)). That is, we wonder if there is a new phenomenon of study called family entrepreneurship that unifies theories and approaches by blending ideas from family, family business, and entrepreneurship literature.

Second, another particular path to enhance knowledge is to look into the different levels of analysis by incorporating a balanced perspective between family and entrepreneurship. At the individual level, the tension in the relational trade-offs between members of a family offers ample ground for further research (Stamm 2016), for instance, by investigating how emotions and affect influence the entrepreneurship process (Shepherd 2016). Incorporating such tensions in our studies can reveal important and hidden aspects in the level of resource access and provision during the entrepreneurial process, shedding some light into the complex process leading to firm creation and the effects of family dynamics. At the group level, further understanding of family dynamics at the individual and collective level may also help to explain the development of a network of businesses over time (Rosa et al. 2014). Finally, at the family-firm level, the lack of theory to predict corporate entrepreneurship behavior in the context of family businesses calls for further exploration. At all levels, further qualitative research may overcome the constraints that replication research strategies entail. While each level has different evolution paths, there is a lack of studies observing the entrepreneurship phenomenon by integrating multiple levels of analysis. Future studies should explore the dimensions of family system theory (interactions, circular causality, goals, rules, patterns, equifinality, heterostasis, and autopoiesis) and their aggregate and disaggregate effect across levels to configure implications for entrepreneurship.

Table 8.2 Family perspective on entrepreneurship: future research

	Entrepreneurship by families	Embedded family entrepreneurship	Entrepreneurship across generations
Individual level	<p>How are resources allocated to family members for entrepreneurial pursuits over time?</p> <p>What kind of interactions, goals, and patterns do families develop to nurture individual entrepreneurial behavior?</p> <p>How do family members produce and re-produce individual entrepreneurial behaviors over time?</p>	<p>How do individual resources contribute to the action of enterprising families over time?</p> <p>What kind of interactions, goals, and patterns do family members develop to nurture enterprising families?</p> <p>How do family members produce and re-produce enterprising families over time?</p>	<p>What individual factors in family members contribute to entrepreneurship across generations?</p> <p>What kind of interactions, goals, and patterns do family members develop to nurture habitual and corporate entrepreneurship over time?</p> <p>How do family members produce and re-produce particular patterns to develop and sustain habitual and corporate entrepreneurship over time?</p>
Group level	<p>How does embeddedness influence the cohesion of family entrepreneurial teams over time?</p> <p>What are the group-level interactions, goals, and patterns that boost or hinder family group level of entrepreneurship?</p> <p>How does a family perspective on entrepreneurship influence the collaboration between several families in business (e.g., cooperatives, industrial districts)?</p>	<p>Are there different types of enterprising families based on family embeddedness?</p> <p>What are the group-level interactions, goals and patterns that boost or hinder enterprising families?</p> <p>How do groups of family members produce and re-produce enterprising families?</p>	<p>What group-level factors can contribute to effective intergenerational teams sustain entrepreneurship across generations?</p> <p>What are the group-level interactions, goals, and patterns that boost or hinder corporate or habitual entrepreneurship by family members over time?</p> <p>How do several generations of a family in business ensure entrepreneurial sustainability?</p>

(continued)

Table 8.2 (continued)

	Entrepreneurship by families	Embedded family entrepreneurship	Entrepreneurship across generations
Firm level	How and when the three perspectives of family (structural, psychosocial, and transactional) affect family-based economic and entrepreneurial activities?	How do enterprising families affect family-based economic and entrepreneurial activities? How does family-firm relationship produce and re-produce enterprising families?	What is the relationship between generational involvement and corporate entrepreneurship in family businesses? What kind of interactions do firms internally develop to nurture transgenerational entrepreneurship?
Contextual dimensions	How do contexts determine and affect entrepreneurial actions by families? How do institutional, cultural, and family contexts boost or retard entrepreneurial actions by families?	Is the family a particular micro-context for entrepreneurship? How do contexts mediate and moderate the relationship between family and entrepreneurship?	Do contexts matter for corporate or habitual entrepreneurship over time? How do contexts interact with corporate entrepreneurship and family generations?
Time dimensions	What is the relationship between family life cycle and entrepreneurial actions by families? How does time and what time-dimensions affect family and entrepreneurial?	What is the role that time plays in the family effect on entrepreneurship?	Does the way family and societal culture interpret time affect corporate entrepreneurship?

Third, beyond the three levels of analysis, there is an alternative level which has been largely overlooked in the intersection between family, entrepreneurship, and family business: the regional level. This has remained a largely unexplored level. There are already some efforts to link family business and regional development (Basco 2015; Stough et al. 2015) and family business entrepreneurship at the regional level; yet, further theorizing efforts of the interaction of family, entrepreneurship, and family business is needed at regional context. The main question to explore at this level is to better under-

stand the role that the family entrepreneurship phenomenon plays for social and economic growth and development.

Fourth, further understanding of the family entrepreneurship phenomenon in diverse contexts is needed. That is, following system theory, it is important to understand not only the boundaries among individuals (private and social life) within the system but also the boundaries between systems in which individuals participate. The dynamics of family, entrepreneurship, and family business need also to take into account cultural diversity around the world by using a multiple embeddedness context approach for entrepreneurship (Basco 2017a, b; Gupta and Levenburg 2010). Such diversity highlights the different views of family and the perceptions of enterprise over time. In some contexts, the entrepreneurial process may be easier to start in the context of family due to the available family resources when family relationships are positive and, particularly, where institutional requirements may entice nascent entrepreneurs to access the family resource pool (Khavul et al. 2009). On the other hand, there may exist particular environments where cultural, economic, and institutional forces may constrain family-based entrepreneurial activities (Ivanova 2009). A similar approach could be extended to the study of corporate entrepreneurship study in family businesses where contextual forces retard or expand business growth and development.

Fifth, as previous sections have detailed, there is no theory of family perspective on entrepreneurship. Such lack of theory is related to the notion that the family entrepreneurship phenomenon has been built upon mainstream theories and approaches already used in the context of entrepreneurship (such as organizational, strategic, economics, and behavioral fields), the phenomenological stage of family business research, and the limited exploration of family itself (the limited participation of scholars from the field of family). Therefore, future research in analyzing the family perspective on entrepreneurship should look for more independence from the field of entrepreneurship, more focus on strategies to build theory, and more implication of researchers paying attention to the family side in order to bring new ideas and different lenses.

Finally, the study of family perspective on entrepreneurship cannot avoid time as particular dimensions are linked to individual and family life cycles. Future research should go beyond the notion of time as an objective dimension (a progressive chronology of events that follow each other: birth, survival, exit) to a subjective dimension in order to capture the meaning of time for peoples and cultures that may affect entrepreneurship. In other words, there should be a subjective dimension that mirrors the present moment of entrepreneurship behavior (at individual, group, and firm levels) within the time-space framework to understand the past and how future expectations are shaped.

Conclusion

This chapter aimed to bring forward a family perspective on entrepreneurship. In this sense, there is a need to continue exploring the influence of family dynamics on entrepreneurship. Neglecting the effect of family on entrepreneurship can only ever be a partial representation of reality. A family perspective on entrepreneurship, as a sub-multidisciplinary field of research, may have theoretical and practical implications. A family perspective on entrepreneurship can shed new light on mainstream fields (family, entrepreneurship, and family business) by interconnecting knowledge but, at the same time, become a platform for developing a more integrative theory of family-based organizational and entrepreneurial activities. Moreover, a family perspective on entrepreneurship can expand the interpretation that practitioners and policymakers have regarding the family as economic and social actors. Even though family-based organizations and entrepreneurial activities are the backbone of local economies (Howorth et al. 2014), family and family businesses have been neglected in regional economic policies (Basco and Bartkeviciute 2016). Understanding the relationship between family, entrepreneurship, and family business within geographical spaces is important in order to develop policies that stimulate regional development through recognizing the specificities of economic and social actors.

There are three areas where further development is warranted. First, in the individual, group/team, and firm-family levels, where the intersection of family entrepreneurship and family business occurs. Second, an “inverse contribution strategy” is necessary in order to gradually reduce the dependence on mainstream theoretical lenses. This would allow to theorize and incorporate family knowledge into the multidisciplinary field of entrepreneurship. Third, the phenomenon of the family perspective on entrepreneurship would benefit from further acknowledgment of context (Welter 2011). While the family context is relevant to study entrepreneurship, little is known about how it can help explain the multiplicity of contexts in which entrepreneurship happens (Basco 2017a, c). This chapter highlights that while most studies to date have focused on single contexts or localities, a family perspective on entrepreneurship could be explored across cultures and regions (Basco 2015).

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9

Technology Development Perspective on Entrepreneurship

Poul Kyvsgaard Hansen and Ole Madsen

Introduction

Technology plays a key role in many entrepreneurial projects. Clayton Christensen framed the concept of disruptive innovation that was inspired by the many cases where new technologies caused large, established firms to fail (Christensen 1997). One of the main challenges in regard to technology in entrepreneurial projects is that the aspects associated with technology generate substantial uncertainty. This uncertainty relates to the technical feasibility and maturity. Also, the uncertainties directly associated with technology will cause uncertainties in most other aspects of an entrepreneurial project. Whereas the specific technologies will change according to the context, the technology development process can be seen as a more generic phenomenon. The various elements of the technology development process tend to be comparable regardless of the surrounding context. The fact that the uncertainties generated by technology development generate new uncertainties in other areas calls for an increased insight into how technology development can be seen in a wider perspective. For the most part, research in entrepreneurship is focused on understanding and predicting the behaviour of systems by way of studying the principles that govern them. In practice, the fundamental competency of entrepreneurs is seen to be their ability to understand, synthesize, and apply such principles in creating new technologies that ultimately result

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in new products. The purpose of this chapter is, therefore, (1) to understand the nature of technology development in an entrepreneurial project perspective and (2) to understand how technology development activities affect other essential activities in entrepreneurial projects. In both cases, the viewpoint is a combined theoretical and practical perspective that enlightens the understanding and discusses the handling of the derived challenges.

Technology Development

There are a number of useful distinctions to be aware of when discussing technology development. In a time perspective, it makes sense to distinguish between four different phases: (1) basic research, (2) technology development, (3) product development, and (4) operations. The four phases can be described with the characteristics seen in Table 9.1.

The technology S-curve has become a dominant way of understanding and communicating how the whole technology development process unfolds. Based on empirical observations, the S-curve shows the typical path of technology performance in a time perspective (Foster 1986). At first, the performance is developing in a fuzzy and a slow way (the basic research phase). After a variable time period, the performance rises slowly at first (the technology development phase) and then faster (the product development phase), and, finally, the performance stabilizes and increases with a moderate improvement rate (the operations phase). To illustrate with an example, Gillette launched the original safety razor with disposable blades in 1903, and the current

Table 9.1 Technology development in four phases

Basic research	Discovery process driven by structured research No set timing Unpredictable financial returns Long term
Technology development	Loosely structured but purposive Timing characterized by high uncertainty Uncertain financial returns Medium term
Product and process development	Structured methods and purposeful Planned timing Predictable financial returns Short and planned term
Operations	Highly structured in a given context Timing controllable Highly predictable returns Short and predictable term

version of the product is the Gillette Fusion five-bladed razor. The two products are based on a very similar concept, but the big leap in performance that characterized the initial development period has in the past many years been replaced by a large number of small continuous improvements.

The incumbents of any given industry own and maintain the dominant and mature technologies of that particular industry. Just maintaining and realizing incremental performance improvements of the technologies require substantial R&D investments, and these investments sustain the incumbent's dominance within the industry. However, after some years, the further performance improvements become more and more fractional.

A substantial number of empirical studies have demonstrated that the leading incumbent firms have strong competences in regard to reinforcing and refining technologies at the expense of spotting new successor technologies (Christensen et al. 2015). The radically new technologies are frequently developed and brought into the industry by small entrepreneurial firms. In some cases, this results in the leading incumbent firms losing their positions of industry dominance. Examples of incumbent firms losing their dominant position can be seen in many industries. Encyclopaedias were, for many years, printed on paper and published in dozens of hardbound volumes. The process of updating was substantial and time-consuming. In 2012, the market leader of printed encyclopaedia, Encyclopaedia Britannica, had to end its print of new volumes after 244 years in the industry. The position of market leader was taken over by Wikipedia, which offered free online access to a much larger number of articles, which were written and edited by volunteer editors (Bosman 2012).

Technology development is rarely just one isolated technology developing but frequently a portfolio of closely related technologies that are developed in asynchronous steps. Many independent firms participate in the technology-development process, and the drivers for further development are combinations of technology pushes and market pulls (Verganti 2009). The task of recording and reproducing sound or music (as described in the following) can be seen as an illustrative example of the complex technology development process.

In times past, a listener had to be physically present to enjoy music. This limitation led to a tacit need to be able to capture and reproduce sound or music. Because the need was tacit and not yet precisely articulated, the development was therefore mainly technology driven. Many inventors responded to this tacit need by introducing different devices that could record sounds. Thomas Edison invented the phonograph in 1877, and this was the first device to be able to reproduce recorded sound (Stross 2007). Initially, the sound was recorded on a cylinder, but, in 1887, the flat disc that came to be known as the "Gramophone" was patented and launched (Stross 2007).

A number of individual technology developments made this possible. Among these were stylus technologies, amplifying technologies, microphone technologies, disc-cutting technologies, and disc material technologies. Only when these technologies were sufficiently matured and efficiently integrated did the dominant design of the turntable emerge (Abernathy and Utterback 1978).

During the twentieth century, the dominant technology for storing music was the vinyl record format and the dominant technology for reproducing music was the turntable. This was the case within the consumer market. Within the professional market, the tape recorder was the dominant technology. The origin of the tape recorder was developed in parallel with the phonograph but followed a different path, focusing on the magnetic technologies needed to improve performance. In the professional market, the tape recorder offered a radical reshaping of the recording process whereby sounds captured on tape could now easily be manipulated, edited, and combined in ways that were simply impossible with disc recordings. Compared to the technologies associated with the turntable and vinyl record development, tape recorder development was based on very different technologies. Among these were magnetic tape technologies, magnetic writer/reader technologies, motor technologies, and noise reduction technologies. Most of the individual technology developments were incremental in nature, though some were more radical, but the overall dominant design of the tape recorder remained stable from the 1950s and throughout the twentieth century (Abernathy and Utterback 1978).

The case of the vinyl record player/turntable and the tape recorder demonstrates that very familiar needs were met with two different dominant designs based on different technologies. During the 1960s, a need for audio playback in automobiles led to the development of the compact cassette (Morten 2004). This development was aiming at the consumer market but was largely based on the advances of the technologies associated with the development of the tape recorder (Rothman 2013). Philips won the race between a number of firms to establish its compact cassette as the worldwide standard. In order to win the race, Philips got support from Japanese electronics manufacturers. An important explanation is that Philips, under pressure from Sony, decided to licence the compact cassette format free of charge (Nathan 2015). Initially, the sound quality of compact cassette technology was mediocre, but it improved dramatically by the early 1970s and kept improving (Daniel et al. 1999). A major boost to the consolidation of the compact cassette as a dominant design was Sony's launch of the Walkman (Nathan 2015).

The more recent development of digital audio repeats the patterns of past. New technologies are introduced and, after repeated initial low performance, improve upon the former dominant designs, and, in some cases, eventually take over as the new dominant designs. First, the compact disc became the

dominant design; however, around the year 2000, the MP3 and M4a formats took over (Fine 2008). The example of recording and reproducing sound or music focuses on product technology. A similar approach is equally relevant for process or production technology.

Technology Development and Entrepreneurship

The earlier example of the technologies that enabled the development of the market for recording and reproducing sound or music illustrates some general features and conditions about technology development. These features and conditions can illustrate the challenges that the people involved in the development process are facing. Some authors distinguish between “entrepreneurship” and “intrapreneurship”, wherein the latter is seen as entrepreneurship within an existing or larger organization. We regard the concepts to be extremely closely related and therefore only use the term “entrepreneurship” to cover both phenomena. The essence of entrepreneurial activities is conditions of extreme uncertainty (Ries 2011). With respect to technology development, the uncertainty mainly relates to the imagining of a potential application and the technical capability of the technology.

A technology becomes relevant in an entrepreneurial setting when the imagining of potential purposes for the technology starts emerging. A purpose can be characterized by the fact that it makes sense to a subset of involved actors. With respect to that, the sense-making process is an essential trigger for the further development and maturing of a given technology (Weick 2001). The early sense-making process can lead to a very diverse image of potential usages. These usage images can compete and coexist for a long period of time.

Roberto Verganti has conceptualized the synchronous development of technologies and their associated imaginings in terms of the framing of meaning in a 2-by-2 matrix. Every technology embeds many meanings, some of which are potentially disruptive, although they are not clear at first. Technology development can change performance incrementally or radically and the meaning associated with a given usage can be changed incrementally or radically. When both the technology and meaning are changed incrementally, the innovation is defined by “Market pull”. This is similar to the incremental technology development in the operations phase (as discussed earlier). The “Market pull” area is the place where the incumbents of a given industry tend to dominate. When both the technology performance and meaning change radically, there is a possibility for, what Verganti has defined as, a technology epiphany (Verganti 2009). In the area of technology, an epiphany is the most frequently seen area for entrepreneurial activities.

Larry Keeley also emphasizes the importance of an effort that includes more than technology in its purest sense (Keeley et al. 2013). Keeley is one of the founders of the Doblin Group (now acquired by Deloitte). The Doblin Group studied a large number of innovation examples throughout the world. They identified ten main types of innovation and published their *Ten Types of Innovation* model in 1998. In 2011, the model was updated to reflect the experienced changes since the launch of the original model. The ten types of innovation cover many different aspects clustered into three main groups: (1) configuration, (2) offering, and (3) experience. Technology, in its purest sense, is only a part of one of the ten types within the main group “Offering”. Based on observations and assessments in the many companies where Doblin has delivered consultancy services, they draw very significant conclusions. The innovation focus on efforts within the category “Offering” represents the largest part, measured quantitatively in terms of invested resources. However, the cumulative value creation based on that effort within the same category is less than all other categories. Keeley emphasizes that the conclusion to be drawn from this is not that the focus on the offering category is less important. The conclusion should rather be that the focus on the offering category cannot stand alone. It has to be combined and synchronized with the other nine types of innovation. Based on the experiences from the involved companies, Keeley suggests that at least four of the ten types of innovation have to be addressed in order to generate a strong competitive innovation (Keeley et al. 2013).

Dave Francis and John Bessant follow a similar line of thought in their 4P model (Francis and Bessant 2005). The 4P model has been refined frequently by updates in various articles and Innovation Management books (Tidd and Bessant 2013). As indicated by the subtitle of Tidd & Bessant’s Innovation Management book (2013), “Integrating Technological, Market and Organizational Change”, the central idea is that technology has to be integrated with other aspects of innovation in order to contribute positively to innovation. Tidd and Bessant distinguish sharply between invention and innovation (Tidd and Bessant 2013). Invention is, in this context, seen as technology in a very pure sense.

The 4P model is named after the four innovation viewpoints that are represented in the model: Product, Process, Paradigm, and Position (Francis and Bessant 2005). In this model, four independent axes represent the innovation viewpoints and each axis indicates an incremental innovation effort near the centre versus a radical innovation effort far from the centre. According to the 4P model, innovation can be targeted in four main ways or domains:

1. Product—innovation to introduce or improve products and technology
2. Processes—innovation to introduce or improve processes
3. Position—innovation to define or redefine the positioning of the firm or products
4. Paradigm—innovation to define or redefine the dominant paradigm of the firm or the industry

Francis and Bessant (2005) discuss the four innovation viewpoints and conclude that they are not rigid categories and that they have fuzzy boundaries. Nor are they alternatives: Firms can pursue all four at the same time. In comparison to the Ten Types of Innovation model, the 4P model includes technology equally in the product and the process domain.

The vehicle for technology development is a project. Given the uncertainties that characterize technology development, the important questions are (1) how to organize the project in terms of internal and external contributors, (2) how to identify the right insight and knowhow for the project, and (3) how to frame and conceptualize the technology in order to understand and communicate the potential opportunities. New technologies face extreme uncertainties in terms of technical, market, financial, and organizational feasibility. Initially, the most important questions are concerning the technical feasibility. Is it technically possible to realize? What kinds of tasks can the technology execute? To what extent can existing technologies be adopted and further developed or adapted? What kind of supporting technologies are needed? New technologies generally have a lower performance than the current dominant technologies in a given market. Therefore, these technologies attract less attention from people who are focusing on the daily operational tasks that characterize a given industry. Seen from the perspective of a small entrepreneurial start-up, this indicates potential new opportunities to reframe or even disrupt an existing industry (Henderson 2006). Seen from the perspective of a corporate entrepreneurial unit, this also indicates potential new opportunities, and, furthermore, opens the question of how to make the rest of the organization aware of the new opportunities.

The uncertainties characterizing technology development projects can be found in both the timing and performance of the technology. Basically, neither the timing nor the performance can be predicted with high certainty. In some cases, there is a vision for the potential future performance but the important questions are asked in regard to the immediate next iterations. When the basic uncertainties have been resolved, the technology will be ready to be included in a product development project. In contrast to the technology development project, the product development project can be predicted

in terms of timing and performance. The essential question is when has the technology been researched and pre-developed sufficiently to cover the risks of including it in a product development project. For both small entrepreneurial and corporate entrepreneurial projects, there are challenges in regard to financing and finding the right competences for the next step in the development process.

The types of questions discussed earlier will typically be asked initially in an entrepreneurial project in which technology is a major component. This calls for comprehensive understanding of the whole context in which technology development is impacting entrepreneurial projects and, furthermore, for theoretical and practical approaches of how to deal with the derived challenges.

Technology Development in a Value-Chain Perspective

The concept of value has become a cornerstone in business development. In the 1980s, Michael Porter conceptualized the value chain and defined it as a set of activities that a firm in a specific industry performs in order to deliver value in the form of a product or a service to the market (Porter 1985). A value chain is a particular focused process whereby each activity adds value to the final result. This view is based on a process view of the organization. Processes, or transformation processes, are seen as series of input-process-output relationships that, via the application of resources (money, labour, materials, equipment, buildings, land, and management), produce the intended value to customers. Customers are also perceived in a process perspective whereby a customer in a given area of the value chain turns into a supplier to another customer in the next step of the value chain.

The process concept is highly recursive and allows focusing on details while keeping an overview of a wider configuration towards both suppliers and customers. Porter distinguishes between the value chain as the internal processes of a given organization and the value system that involves suppliers and customers (and the suppliers' suppliers and the customers' customers, etc.). To achieve and sustain a competitive advantage, an organization needs to understand the critical elements of the value system as well as the value chain (Porter 1985). In this chapter, we do not distinguish between the value chain and the value system. Only the term "value chain" is used to cover both the internal and the external processes.

By adding the value perspective to the process perspective, it is possible to analyse whether each step in the process chain adds positive value to the whole

or to focal parts of the chosen process chain. Michael Porter's original value-chain concept is seen as a mainly macroeconomic term to support our understanding of competitiveness between industries or even between nations (Porter 1985). The term, however, is easily adapted to a more microeconomic use. This easy adaptation of the value-chain concept indicates that the concept offers an extended and integrated understanding of the competitive factors of an individual organization. This has been followed by a further refinement.

In the operations phase, materials, services, and information are being transformed step by step. The measurement points typically used are cost, time, and quality. The cross-disciplinary areas termed Supply Chain Management and Operations Management encompass all the theories and practical concepts associated with the flow and transformation of materials, services, and information. However, the value perspective is also relevant with respect to product and process development and also with respect to technology development. Product or process development—or development of any kind—can be seen as a set of activities that are focusing on updating the operations value chain. In line with this, technology development can be seen as a set of activities that is focusing on maturing technologies and feeding these into the product development phase. The three value chains—the operations value chain, product and process development value chain, and technology development value chain—can be seen in an interconnected perspective as illustrated in Fig. 9.1 and are discussed next.

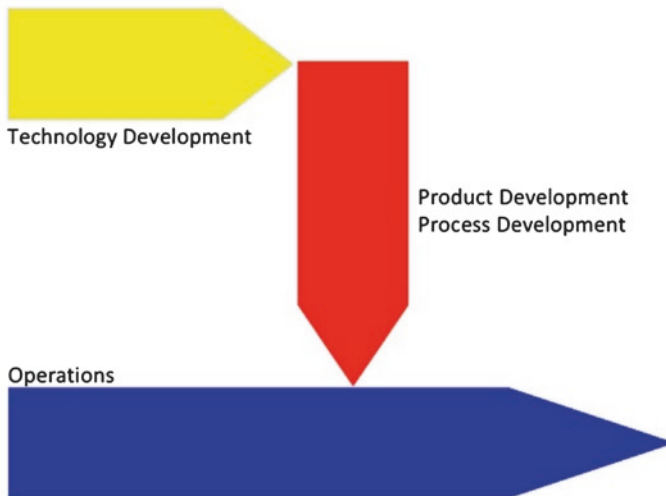


Fig. 9.1 Technology and product development, and operations in a value-chain perspective

Technology Development in the Operations Value Chain

In comparison to the product development and technology development value chain, the operations value chain represents physical reality. Therefore, the operations value-chain activities can be observed, documented, and analysed. The focus is on identifying potential improvements and spotting potential opportunities based on the metrics of cost, time, and quality.

The focus is on both product technologies and process technologies. This follows the logic of the value chain in which the product technology of one organization becomes the process technology of another organization.

From the perspective of the individual organization, there has to be a satisfactory balance between the products offered and processes involved in the manufacturing of these products. The 4P model captures this perspective by operating with both a product and a process dimension (Tidd and Bessant 2013). The product dimension provides the possibility of a review of the offerings to customers, while the process dimension provides the possibility of a review of the manufacturing set-up. When reviewing the product innovation and process innovation dimensions simultaneously, the judgement of whether the right balance has been or can be realized becomes explicit and, therefore, becomes a subject for management attention and involvement.

Determining the level of analysis is a significant challenge when analysing an existing operations value chain. A significant technological innovation of a given element might have an insignificant impact measured in cost, time, and quality. When dealing with chains of activities, there are always interdependencies that will determine whether an improvement in one area will affect the overall performance. In Table 9.2, we suggest a distinction between the five levels of technology focus and analysis. Since any distinction between levels has an element of recursiveness, it is always necessary to define the most fine-grained level of relevance for the specific application. To exemplify, the earlier example of recording and reproducing sound or music discussed earlier has been used to illustrate the distinction between the five levels.

Any organization that would use the order of technology model to sharpen its focus needs to consider the relevant order level according to the desired usage. For the stylus manufacturer, for example, the stylus will be a third-order technological system and the first and second order will comprise more detailed technologies. Likewise, for the manufacturer of the turntable, the stylus will be perceived as a first-order technological system (as seen in Table 9.2). In the operations value chain, the analytical focus is the technological performance as is. The as-is analyses can uncover any lack of efficiency or identify new potentials.

Table 9.2 Order of technology system model

First order of technological system	<p>A single operation or component The stylus of a turntable or the recording head of a cassette player are examples of first-order product technology systems. A single manufacturing operation is an example of a first-order process technology system.</p>
Second order of technological system	<p>Two or more connected first-order systems The whole drive system for a turntable or the tape driving system of a cassette recorder are examples of second-order product technology systems. A combination of manufacturing operations to produce a part or assemble a sub-assembly are examples of second-order process technology systems.</p>
Third order of technological system	<p>A number of connected second-order systems combined with one or more purposeful viewpoints The mix of subsystems in a turntable or a cassette recorder combined with the different relevant high-fidelity metrics A number of manufacturing operations combined with a planning and production control viewpoint is an example of a third-order process technology system.</p>
Fourth order of technological system	<p>All the involved first- and second-order systems fully integrated in the system that constitutes the offering by the organization The final turntable or the cassette player that includes a chosen balance between numerous technologies is an example of fourth-order product technology systems. The combination of manufacturing operations and support functions that are capable of producing the whole product with a given quality is an example of a fourth-order process technology system.</p>
Fifth order of technological system	<p>The wider value chain Larger parts of, or the entire industry engaged with products for recording and reproducing sound or music. A very complex web of various technologies constitutes an example of a fifth-order product technology system Larger parts of or the whole supply chain with numerous interconnected supplier-customer relationships is an example of a fifth-order process technology system</p>

A lack of efficiency can lead to lower competitiveness as measured in terms of cost, quality, or time. One reason for this might be obsolete product or process technologies. Another reason might be insufficient utilization of product or process technologies. When the challenges leading to the insufficiencies are simple, the problems can be solved by adjustments or simple replacement of the technologies that cause the challenges, but, in many cases, there is the need to initiate a development project to solve the problems. Development has a different nature as compared with operations, and development is therefore better understood within the product and process development value chain.

Observations or analyses of the as-is technology performance in the operations value chain often uncover smaller or more radical innovation opportunities. With respect to the 4P Innovation Model, the opportunities can be classified on a continuum scale ranging from the incremental to the radical innovation of product, process, paradigm, or position. Innovation opportunities within the four domains can be combined into a set of interconnected innovation opportunities. The greater the involvement of all four domains, the more easily complex innovation opportunities can be identified and the greater the potential is for a competitive advantage. The role of the 4P Innovation Model is to direct the focus and to make sure that all domains have been considered. Furthermore, the 4P Innovation Model serves as a means for communicating the observed opportunities to others involved.

One of the important analysis viewpoints is to observe and perceive the dominant understanding or meaning of the task or role of the technologies involved. In most cases, the identified opportunities only challenge the dominant understanding or meaning slightly. But, in some cases, the dominant understanding can be challenged more radically. In these cases, there is an opportunity for a radical innovation, and if the technology change opportunity and the meaning change opportunity coexist then there is the possibility for a technology epiphany (Verganti 2009). In order to realize the identified opportunity, it is necessary to initiate a development project.

Technology Development in the Product and Process Development Value Chain

The product development value chain includes all the projects that lead to solutions that eventually can be introduced into the market via their inclusion in the activities of the operations value chain. In many cases, these are new products or processes, but development projects can as well consist of new services, new logistic set-ups, new ways of operating in the market, and new ways of communicating with the customers.

The activities of the product and process development value chain are initiated with three elements: (1) a description of the idea, (2) a plan for the development process, and (3) a budget for the development process. The opportunities identified in the operations value chain can be seen as impulses. In order to clarify and review them further, they need to be elaborated into an idea. An elaborated idea is often called a concept. A product concept can be defined as “an approximate description of the technology, working principles, and form of the product. It is a concise description of how the product will satisfy the customer’s need” (Ulrich and Eppinger 2016). The concept devel-

opment process is an essential and creative part of the whole development process. During this process, the various observations from the operations value chain and inputs from numerous cross-disciplinary competences have to be integrated into the concept description. The concept description, the development plan, and the development budget together have to be sufficiently convincing to gain acceptance from the sponsor of the project. In smaller start-ups, the concept development process might be informal and loosely structured but, the larger the organization, the more formal and structured the process is that can be found.

The degree of innovation radicality should be decided upon and effectively framed during the concept development process. This innovation radicality can emerge from a radical technological innovation or from a radical change in the meaning of the sought-after solution in the given context. Again, the example of recording and reproducing sound or music serves to illustrate this.

The development of the cassette player was, for a large part, driven by the need for audio playback in automobiles. Early cassette players were inferior in comparison to other audio reproduction devices in regard to all commonly accepted high-fidelity metrics but added a new metric: portability. Cassettes were more portable and could be stopped and immediately removed in the middle of playback without rewinding (an advantage compared to the old reel-to-reel tape recorders). Though pre-recorded cassettes were widely available, many users would record music from their vinyl records. This created a new need, and new opportunity, for cassette recorders with better quality. A similar development trajectory could be observed when the Sony Walkman was launched, and, later on, when the iPod was launched.

The specifications and features for a desired product can be addressed and enumerated when the new meaning has been uncovered, and the current technological state has been mapped. Roberto Verganti explains this ability to address and specify customer needs and the associated product requirements with the emergence or pre-existence of an appropriate language to capture and frame these needs (Verganti 2009).

In a market that is already well known, the language to address the needs and specifications already exists. The concept developers can interview existing customers and these customers can express their wishes rather precisely. Verganti defines the appropriate development approach as Market Pull (Verganti 2009). This implies that the requirements for the supporting technologies can, accordingly, be specified precisely. The Market Pull approach is most likely to generate the incremental changes of technologies and their associated meaning. When more radical changes of technologies emerge, the concept developers need to develop a new language to address the features of the technologies as well as the opportunities seen from the customers' perspective. Here, Verganti defines the

appropriate development approach as Technology Push. Finally, Verganti defines the Design-Driven approach as the appropriate development approach when the focus is on changing the meaning in a more radical manner. In the rare case, a radical change in technology and a radical change in meaning co-emerge. This is defined as a technology epiphany (Verganti 2009).

The role and the task of the concept developers are very different in the three approaches to development. The Market Pull approach requires the ability to scan the operations value chain and identify opportunities that require incremental changes. These changes are likewise supported by incremental changes of the supporting technologies. The Technology Push and Design-Driven approaches are different and more radical in nature. Such radicality necessitates a different approach. There is the need to include a process that can cope with significantly more uncertainty. This process has been named “Technology Development” (see Fig. 9.1).

Technology Development in the Technology Development Value Chain

The technology value chain can be understood as comprising technologies or concepts that need to be proven to a certain level before attempting to incorporate them as a part of products, services, production equipment or setup, or significant development efforts. The technology value chain is a broad category of elements that all have in common that they need to be developed, matured, or tested before being included in a development project and brought into a specific solution for the operations value chain.

The value in the technology value chain is mainly generated by virtue of the right timing and right issue. Speed and, most importantly, documented progress are other important values that should be emphasized. The results of these activities are not solutions that can be immediately implemented but rather solutions that have been tested enough to be included in the product development value chain and that will eventually lead to solutions that can be implemented in the operations value chain. In most cases, the solutions considered in the technology value chain are neither invented nor developed within the organization. Specialized companies that have special competences within a particular technology field most often develop the basic technologies to be included in the solutions. Therefore, the activities within the technology value chain are often done in close collaboration with external partners. New solutions might support the current value proposition of current offerings and thereby lead to stepwise improvements and incremental innovation. In other cases, the new solutions might lead to radical innovation or even disruptive innovations.

The inputs to the projects in the technology value chain generally come from three sources: (1) basic research activities, (2) observations in the operations value chain, and (3) observations from external operations value chains.

Basic research activities are unable to predict the time when the results can be utilized. Whenever breakthroughs happen, the process changes character to being more purposive (see Table 9.1). When observing the current operations value chain, new potential opportunities may be identified. In a similar way, observations from operations value chains in other industries might identify new potential opportunities. In both cases, the phenomenon can be described as reframing in the sense of seeing new opportunities in the configuration of the activities of a given process (Normann 2001).

The processes of the technology value chain are loosely structured due to the uncertainty about performance, cost, and configuration. The uncertainties invite for a highly iterative process. O'Connor and her colleagues propose an iterative process driven by the questions: "What do we know?" and "What do we know that we don't know?" When iterating, the initial questions are repeated and the answers are categorized according to the type of problem. The iterations continue until a satisfactory level of certainty or maturity has been achieved (O'Connor et al. 2008).

Technology Development in Entrepreneurial Settings

The perspectives and challenges of technology development in entrepreneurial settings can be discussed in regard to the three interconnected value chains: Operations, product and process development, and technology development (see Fig. 9.1). Entrepreneurial ideas are rooted in the operations value chain and/or in the technology development value chain. When rooted in the operations value chain, the ideas are based on observations and dialogues with users and potential customers. Having the abilities to critically observe and to creatively imagine what could be are the key challenges. In both cases, an essential entrepreneurial challenge is to reframe the observed activities in order to identify new opportunities. Technology is often tangible, whereas imagination is highly intangible and elusive. Entrepreneurs with a technical background are trained in an environment where technical specifications and observable facts play the most important roles. Imagination, on the other hand, is rooted in psychology and generally understood as the ability to create mental images of something that is not present to the senses. Albert Einstein

is quoted for the following: “Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution” (Viereck 1929). The challenges of bringing these two very different worlds together are far from solved. There are substantial unrealized gains in breaking up some of the traditional educational barriers, and there are still urgent needs to develop methods that can facilitate a merger between the two different worlds. Some of the world’s most renowned universities are characterized by having strong initiatives within the field (e.g. Media Lab at Massachusetts Institute of Technology [MIT] and d.school at Stanford University). Some of the more recently established design and innovation companies are also characterized by their ability to bridge the two worlds (e.g. IDEO and Frog Design). The experiences from university initiatives and commercial design and innovation companies are only emerging towards being transformed into methods and approaches to be utilized by entrepreneurs.

In many cases, a technology-driven entrepreneur has a tendency to focus too narrowly on technology aspects. An ability to put technology in a variety of contextual settings is essential here. The distinction between the five technology system orders, as described in Table 9.2, provide guidance to determine the level of observation. As technology development gets more specialized, the ability to aggregate several technologies with different maturity levels becomes essential. In essence, the challenge is to be able to work with specific technologies and systems concurrently. Furthermore, the systems can both be systems of different technologies and systems of technologies including non-technical elements (e.g. business aspects). The multidimensional innovation perspectives as described by Keeley et al. (2013) and Tidd and Bessant (2013) are instrumental in the process of expanding the perspective to include more than a narrow technology view. Most recently, the challenge of combining technology development and business models have been addressed (Ries 2011). Although challenges have been identified, there still remain substantial efforts in order to transform these emerging insights into tested methods and approaches.

One important short-term challenge is to ensure the right balance between product technology and process technology (Abernathy and Utterback 1978). Tidd and Bessant explicitly address this critical balance in their 4P model. An unbalance in favour of product technology would leave the entrepreneur vulnerable to fast copying by competitors. This unbalance is frequently seen because most entrepreneurs are predominantly focusing on the product technology dimension. The change in focus and the need for balancing are typically seen when considering a scaling of an entrepreneurial project. Scaling is

the primary focus of the funding partner of the project since the scaling will be crucial to payback and financial return (Hwang and Horowitz 2012). Process and product technologies are often two very different domains. In the early phases of an entrepreneurial project, the process focus will normally only address the need for mock-ups and prototypes. The process technologies used in this phase are radically different from the process technologies applied in the scaling phase and radically different capabilities and competences are needed. Most often, an entrepreneur will not master process technologies in the scaling phase and, therefore, there is a need for including external specialists or suppliers. The balancing is therefore shifting from being an isolated technical problem to being a combined technical and organizational problem. Whenever a problem or challenge is shifting from being an isolated technical issue to a combined technical/organizational issue, there is a generic shortcoming of efficient methods and approaches. This shortcoming is maintained by the continuous technical development and specialization in both process and product technology.

Another potential unbalance is seen between process/product technology and the positioning dimension. This happens when a product is not differentiated enough to cover a segmented market. Most entrepreneurial ideas are characterized by a narrow customer focus. However, in order to provide an interesting business case, the focus needs to be scaled up to encompass a wider range of customer segments (Hwang and Horowitz 2012). The reason for the narrow focus is often to be found in an insufficient product architecture that does not allow for a modular configuration of the offering according to the various customer segments. There is an open question as to when sufficient product architecture emerges. Most empirical experiences support the fact that product architectures are not generally born modular. The modularity emerges at a point in time and is a sign of a certain maturity of the product (Fine 2000). The competences with respect to transferring an initial integral product structure to a modular structure are very different from the competences that are needed to develop the initial integral product structure. This is further complicated by the fact that the rationales behind chosen modular product architecture are often to be found in the needs to balance the product and the process technologies during the scaling process.

When the entrepreneurial ideas are primarily rooted in the technology development value chain (see Fig. 9.1), the need for reframing is more radical. Tidd and Bessant address this challenge in the paradigm dimension of their 4P model (Tidd and Bessant 2013), and Verganti likewise does so in the technology epiphany concept of his innovation model (Verganti 2009). In both cases, the challenges are related to the ability to give a different meaning to a new

opportunity that breaks with existing practice. Although the benefits of finding or developing new meaning can be significant, many organizations choose to down-prioritize this activity and wait for competitors to introduce the next dominant meaning in their markets (Verganti 2009). A supplementing explanation for the challenges regarding the definition of a new meaning is the fact that performances of technologies often develop faster than the perceived needs in the associated markets. Entrepreneurs in large organizations therefore often find the development of new meaning difficult due to the missing expression of additional performance needs from the customers and following this the inertia of the surrounding organization (Christensen 1997). Smaller and more agile entrepreneurs can use this lack of agility in large organizations to move faster with new entrepreneurial ideas. Traditionally, this has been challenged by the difficulties in getting access to new technologies, but more open technology markets are providing new opportunities for smaller entrepreneurs. Some large organizations utilize the agility of the small independent entrepreneurs by applying an open innovation policy (Chesbrough 2003).

A powerful way of identifying new meaning is to apply scenario methods. Michael Porter defines a scenario as “an internally consistent view of what the future might turn out to be” (Porter 1985). The scenario methods have the ability to incorporate many cross-disciplinary perspectives and communicate them in a comprehensive and integrated story line. Thereby, the scenarios support management involvement in regard to prioritization and risk assessment (Lindgren and Bandhold 2009).

An opportunity or challenge has emerged due to the concurrent technological development of methods and applied technologies. The development of more powerful simulation technologies has opened for simulation-driven development that is seen as a radical paradigm shift in product and technology development processes. Until recently, the method has been used in particular in the late design and verification phases of a development process. The significant development of these technologies is expected to have a huge impact since the usage has been expanded to all phases of a product development process. In particular, the development is enabling small entrepreneurs to engage in more complex development tasks. The critical skills appear to be a much-improved ability to develop and work with digital models. Such skills are not present with the vast majority of the technical workforce today. But small entrepreneurs can acquire the skills by themselves and thereby challenge large and established organizations.

The connection between the technology development value chain and the product and process technology value chain focuses on whether the right technologies have been identified and elaborated and whether these technolo-

gies are mature enough to be included in a product or process development project (see Fig. 9.1). Basically, the requirement is that there is a portfolio of technologies available as a result of the activities in the technology development value chain. Efficient portfolio management requires a strong ability to prioritize, and this appears to be one of the more difficult management competences (Cooper et al. 2001). Since the development activities here, in general, are looser in structure, and metrics to measure progress are less tangible, most organizations find these activities problematic. The lack of immediate urgency and the general observation that a substantial part of the technologies that have been elaborated will not be applied in future products and processes leads organizations to focus more on the activities in the product and process development value chain where the temporal urgency is clear. The unbalance in favour of the activities of the product and process value chain may not have negative short-term consequences, but, in the long-term perspective, the sources for future development dry out.

The activities in the technology development value chains are a mixture of internal and external activities. This necessitates a strong ability to work in networks between various kinds of organizations. Many organizations report unsatisfactory performance in regard to managing the quality of the external collaborations in the technology development value chain. The loose structure of the activities makes it difficult to keep focus and secure progress. Furthermore, two or more partners have to be active synchronously. If any partner puts less emphasis on the collaboration for a period of time, further progress tends to fade.

Some organizations have chosen to make systematic use of external sources to advance their technologies. The systematic approach is known as Open Innovation (Chesbrough 2003).

Paradigm changes or technology epiphanies often emerge as inspirations from other operations' value chains. This phenomenon can be seen as interpreting what is happening elsewhere as an input to the technology development value chain of a given organization (see Fig. 9.1). The interpretation can come from many sources: Suppliers, research institutions, media, cultural organizations, other industries, sociologists, futurists, anthropologists, marketers, artists, or consultants, and so on. Interpreters external to the organization contribute different mindsets in terms of observing and analysing skills and methods. Some are not directly involved in any existing industry, and they can therefore detect phenomena that transcend a given product or process category and apply their insight in a broader context. The challenge is to orchestrate the external collaborations and to develop approaches of how to internalize their inputs and make them an integrated part of further technology development.

Conclusion

Technology is an essential element in many entrepreneurial projects. The specific technologies vary according to the focus of the specific project. However, technology development processes have some general characteristics that are useful in setting up entrepreneurial projects and in recognizing the challenges. Technology is complex in the sense that technologies that are relevant to an entrepreneurial project are in a dynamic interrelationship. The maturity and the current state of performance of some technologies might cause a bottleneck against achieving an overall performance that can justify a solution. In that respect, it is important to be able to identify the involved technologies and to balance them against each other. The multiple viewpoint models presented support this effort by providing a structure that makes the relationships explicit and, therefore, supports the exploration of the solution space and the communication to others involved.

By seeing technology development in a value-chain perspective, it is possible to monitor progress and to evaluate the effectiveness of the activities undertaken. The distinction between different orders of technological systems ensures that the focus of the level of analysis and/or solution can be communicated efficiently.

Entrepreneurs in small companies often have an advantage by being less bound by existing internal and external relationships. In larger organizations, the entrepreneurs often experience problems in breaking with the current dominant views of technologies. Technology, in its purest sense, is most often not the key to understanding the breakthrough of a given entrepreneurial innovation. The breakthrough also involves the meaning of the context wherein the technology plays a central role. This meaning is more likely to be identified and communicated when the technology is seen in the perspective of a value chain. The nature of the technology development activities varies according to the state of a given entrepreneurial project. The distinction between activities in the three domains—operations, product and process development, and technology development—support the choice of appropriate methods and techniques.

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10

Process Perspective on Entrepreneurship

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Introduction

Entrepreneurial, innovation, and design processes are essential in the creation of new valuable solutions in the markets of our societies. There is currently a broad awareness of leveraging the creation of new value in an increasingly rapid and more efficient manner. This chapter explores the processes in the areas of innovation, design, and entrepreneurship, looking for opportunities to leverage the processes by mutual cross-learning.

The outset of this chapter was a proposition that the essential properties of development processes within the three areas of innovation, design, and entrepreneurship have converged during recent decades. The chapter starts to investigate whether this is borne out by evidence, and to what extent, by exploring the development of processes in each area, especially in connection

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with this chapter's area of interest in how entrepreneurial processes have been influenced.

Innovation processes at the corporate level are the established corporate counterparts to startup entrepreneurship processes and a very comprehensively covered area of research and practice. The 'Innovation Motorway' section of this chapter accounts for the development of innovation processes and proposes a set of recent, influential, changing conditions for corporate innovation, digitalization, and networking and the emergent theories and practices that companies apply in response to changing conditions.

In recent decades, the design discipline, in terms of 'design processes', 'design tools and techniques', as well as 'design thinking', has increasingly become a strong influencer of businesses development. Design management scholars argue that such things as innovation (Verganti 2009), strategy (Mintzberg and Lampel 1999), organizations (Brown 2009), and business education (Dunne and Martin 2006) can be advanced and transformed through design processes. The aim is somehow to bridge the world of design with the world of management and corporate business (De Mozota 2006). However, while a range of many different alternative business management perspectives and disciplines have been coupled with design (Erichsen and Christensen 2013), the aforementioned debates have failed to compare design processes with entrepreneurial processes. In this chapter, the different approaches to the design process are reviewed and compared with perspectives on the entrepreneurial process. The aim is to show the similarity between the two fields and thereby unfold key features that might be fruitful to consider in providing new valuable insights into the entrepreneurial process.

Many alternative theoretical lenses have been suggested in an attempt to understand the rather complex dynamics of entrepreneurial processes. The "Entrepreneurship" section presents some of the widely influential theories under the heading of five overall approaches portraying the process of entrepreneurship, these being the causation approach, the evolutionary approach, the contingency approach, the effectuation approach, and the social constructivist approach.

Following the introduction, this chapter is structured into four sections. The first three sections elaborate on the development of processes within the areas of innovation, design, and entrepreneurship, respectively. Each area covers the following: how the understanding of processes have developed, the conceptualization of process in the area (dominant literature/practice), and emergent contemporary process understanding. The last section discusses the convergence of process thinking among the three areas and indicates potential implications for research directions and practice for entrepreneurship processes.

The Innovation Motorway

Innovation processes are the corporate companions to entrepreneurial processes. Especially those corporate innovation processes that are concerned with the higher-impact types of innovation, sometimes also eloquently labeled as ‘corporate entrepreneurship’. These types of innovations, located at the “radical end of the innovation continuum”, are also often labeled with such overlapping classifications such as breakthrough, discontinuous, really new products, exploratory and strategic innovations, disruptive innovation, quantum leap innovation, and radical innovation (Kristiansen and Gertsen 2015). Key features distinguishing these types of innovation from incremental innovation include new technology, new market, new business model, higher performance of the created outcome, bigger uncertainty, new knowledge (for the firm), new knowledge (for the user), and a longer time horizon (Kristiansen and Gertsen 2015).

The processes associated with such higher-impact innovation are the focus of this section. Although such high-impact innovation only constitutes a minor fraction of the innovation traffic in companies, it is interesting for this chapter and book because it is the type of innovation that resembles and parallels other types of entrepreneurial processes, especially regarding one characteristic: uncertainty. Innovation is generally understood here as “*a renewal process*. The process unfolds as a complex interplay between renewal of product/service, market, technology, organization, and/or business process, with the purpose of increasing the stakeholder values” (Gertsen et al. 2006). This definition emphasizes the integrative nature of innovations, and it can also cover innovation at the more radical end of the innovation continuum, although, in addition, this type of innovation will typically have relatively higher degrees of uncertainty, newness, and, eventually, substantial market/stakeholder impact. No doubt such (intended and executed) high-impact innovation processes are social activities of great complexity. Table 10.1 illustrates the development of corporate innovation processes that is discussed next.

Table 10.1 Approaches to corporate innovation process

Rational predictive approach	Agile open renewal approach
<i>Technology push</i>	
<i>Market pull</i>	
<i>Coupling push/pull</i>	
<i>Functional integration</i>	
	<i>Integration & network</i>
	<i>Open innovation, lean, agile</i>
	<i>Digitalization, mixed models</i>

Since the legacy of process thinking in mature companies and academia stems from New Product Development (NPD) processes, and this is the starting point for more recent work on innovation processes, it is expedient to begin with a historical review of the development of process thinking in the NPD area. Rothwell (1994) captures the development of innovation processes in five generations of process models starting in the 1950s with the postwar technology push model. This is a linear process model where the scientific and technological advances push a new product onto the market by offering new opportunities for the fulfillment of existing or new needs. This model was followed by the 1960s' focus on market needs, pulling new products onto the market. The progression of firms' internal innovation process was still conceived of as a linear series of activities.

The model that followed combined the drivers of the two previous models' technology push and market pull and became "the coupling innovation process model", which was still basically sequential in nature, but including the addition of iterative loops, some cross-functionality, and devoting more attention to external influences from market, science, and technology (dominant in the 1970s and beginning of the 1980s). This led to the fourth (Japanese-inspired) model "the functional integration innovation process model", the key features of which were projects integrating parallel functional streams of activities, integrating and feeding knowledge forward to earlier stages to avoid rework, for example, via 'design for manufacturing', and 'concurrent engineering'. The fifth and last of Rothwell's models is "the systems integration and networking innovation process theory" (dominant in the early 1980s to the early 1990s) which was based on the fourth-generation process but further integrated, highlighting the need for continuous change. Finally, Rothwell argued that the fifth period (the early 1990s) also was concerned with time reduction, flexibility, integration, competences, and technology, essentially optimizing all aspects. This model involved computer-aided tools such as simulation, computer-aided design/computer-aided manufacturing (CAD/CAM), and rapid prototyping, and networking with suppliers, customers, and other firms played an increasing role in coping with competence needs and complexity.

In the 1980s and the 1990s, the "systems of innovation" theory emerged from another stream of literature with a broader (macro-) perspective on innovation. This theory relates the policy of a broader set of innovation actors to the ability of firms to innovate, which in turn affects the wealth of a nation (Sundbo 1995a, b, 2003; Edquist 1997). The theory also tries to identify the social and economic effects of the process that creates innovation. The literature on national systems of innovation focuses on the flow of knowledge at a personal, regional, or national level between the actors of the system, such as firms, universities, research institutes, governments, and their staff, taking into account

political support from governments in areas such as legislation, finance, and infrastructure development and also recognizing the role of market characteristics, for example, size and sophistication and enterprise activities, such as investment in new technology, in-house research, and NPD processes (Edquist 1997; OECD 1997; Lundvall 1992; Nelson 1993). In this vein of theories, Porter's national innovation system is also prominent (Porter 1990).

Traditionally, new product (and process) development processes (cf. Rothwell 1994) were rather sequential activities, gradually becoming more iterative and integrative. In practical application, these are strongly associated with linear stage-gate processes as developed and trademarked by Cooper (1993, 1994); Cooper and Kleinschmidt (1995) with manageable milestones. Such models have become a very entrenched, almost inescapable scheme, which more recent innovation proponents and scholars have expended much effort to circumvent. Stage-gate processes are still very relevant and used—often covering 95% of the development effort—and useful for low- and middle-range development (or innovation) processes, so they need to coexist with innovation processes for radical innovation (Tushman and O'Reilly 1996; Boer and Gertsen 2003). In terms of applicability, traditional stage-gate models fall short when applied to radical types of innovation, which require a higher level of agility in order to cope with uncertainty. Thus, during recent decades, some convergence in the understanding of innovation processes as unpredictable seems to have transpired, which has meant moving away from planning approaches. This has happened in response to more recent changes of condition for innovation processes.

New Driving Conditions: More Recent Major Influences on the Innovation Processes

The amazing growth of the number of computers, digital communication, and especially the Internet from the 1990s onward has given rise to possibilities of serving needs by mass customized and individual solutions and, in effect, has impacted the types of innovation and the processes needed to generate them. Essentially the processes have become more open, interactive, and involving, including concepts such as lead-user innovation (von Hippel 1988, 2005; Jørgensen 2010), user-driven innovation (Baldwin et al. 2006), open innovation (Hagedoorn 2002; Chesbrough 2003; Chesbrough et al. 2006), and crowd-sourcing (Estelle's-Arolas et al. 2012). The digitalization and interaction/co-creation of innovation (by firms and customers/users) have indeed also increased the speed of diffusion of innovations in the markets and created exponentially growing companies enabled by intangible, scalable services/

products and the reconfiguration of resources by means of new business models. Some of these enter the market as disruptive innovations, slowly penetrating into niches or nonconsuming markets but at some stage experiencing a more sudden wave of growth, especially as exemplified in the digital domain industries such as music, photography, video rental, TV, travel, banking, retail, and so on. In some cases, this happens when startups are acquired by large, established companies.

The development is comprehensive as many technologies have come together and created an immense richness of opportunities. “We are not living an era of change, but a change of era.” This was said by Pope Francis addressing the church community, but it may well apply to the current development of the corporate world. Technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), Augmented Reality/Virtual Reality (AR/VR), intelligent robots, big data, block chain, genome techniques, and many more are enabling new innovation outcomes and these, and others, such as 3D printing, simulation, and “Industry 4.0” enable and effect new innovation processes. These developments of digital transformation and networking have a strong influence on innovation processes, the characteristics of innovation outcomes, and the speed of diffusion.

New Tires: The Corporate Response to Meet New Conditions

Innovation in established and especially big companies often becomes difficult due to risk aversion, silos, lack of clarity, and complexity, and so on. Complexity theory offers the principal element for understanding the nature of processes at the front end of innovation and particularly for higher-impact innovation. Complexity theory suggests that the future emerges unpredictably from interactions under conditions of flux. The key aspects emphasized are ‘emergence’, ‘self-constructed evolution’, and ‘order-generating rules’. The idea of ‘emergence’ suggests the avoidance of path dependency and a focusing on new emergent paths instead. ‘Self-constructed evolution’ suggests that it is important to keep “stirring the pot” by making actors interact, yet keeping a balance of change: not overly agitated, yet not settled either. ‘Order-generating rules’ emphasizes that relative order is established through self-organizing and simple rules (Lassen 2007; Stacey 1996; Gertsen et al. 2007). Applying such principles to innovation processes means that innovation must evolve through a process of learning, unlearning, experimentation, interactions, openness, and improvisation. Companies interacting under dynamic conditions need to

build capabilities of processes where uncertainty can be recognized and accepted; if they seek constant stability, they are bound to fall short of competitors. They need to be open to ‘accidents’, serendipity, and coincidence as triggers of emergent strategies and possible futures and be ready to seize such opportunities. This limits the control and influence of managers and is likely to clash with traditional management control focus and neatly staged processes.

However, managers can set the stage for increased interaction, learning, trust, and openness be part of such interaction and influence the meaning constructed through such interaction. The aim is to encourage and support effective, ongoing interaction. It is about keeping the dialogue about these things alive and ever changing (Möller and Svahn 2005).

In this type of innovation, the problems faced by the team and the organization have been described by Snowdon and Boone’s model (2007) as a complex context where good answers cannot be found because the excessive rapidity and number of changes make cause relationships hard to untangle. This means that many ‘unknown unknowns’ must be expected. Such a complex context may be the case for the most volatile part of innovation processes, which call for an approach where progress needs to be made by means of a ‘probe, sense, and respond’ cycle. Experiments, interactions, and communication in the process are necessary to discover and validate ideas and gradually decrease uncertainty. Making mistakes is unavoidable and should be made as early as possible and as a natural part of quick learning cycles. Pixar’s Ed Catmull said that “[w]hen it comes to creative endeavors, the concept of zero failures is worse than useless. It is counterproductive” (Catmull 2014).

The emergent and dynamic character of need development and the many new technologies have forced many companies to apply different types of processes (Wolcott and Lippitz 2007; Østergaard et al. 2013). The strategy for many companies is no longer being based on analytical, multiple market studies to the same extent. Instead, the innovation process is a proactive and experimental rather than analytical action in order to keep up with the dynamics of the market. Some practical application of the principles described earlier is mentioned in the following section. Based on substantial case studies, O’Connor et al. (2008) have developed and tested an organizational/managerial setup (promoting a corporate ‘innovation function’) for breakthrough innovation around an agile process model with the generic steps of *discovery*, *incubation*, and *acceleration*. The authors suggest a learning approach using the ‘mantra’ of “maximize learning per dollar spent” to be used while testing and (in)validating ideas, concepts, and prototypes or “minimum viable products” in planned cycles of learning. A concept/tool called the ‘learning plan’

has been developed to help systemize this learning process. At the core of this work is the need for continuous reduction of uncertainties related to four dimensions: markets, technology, resources, and organization (regarding legitimacy and commitment).

The lean startup movement (Ries 2011; Blank 2013), which empirically emerged from hot-spot American startup communities, has caught the attention of established businesses. It promotes a similar agile principle as mentioned earlier: prototyping and learning by engaging with users and customers to build a validated solution before scaling it. Decision-making is not only based on analytical capabilities to reduce the complexity but also on experimental capabilities, with inherent uncertainty. Also, Robert Cooper, in the recent fifth edition of his influential book *Winning at New Products*, introduces an 'agile' and 'hybrid' process model (Cooper 2017).

Furthermore, there is evidence that companies working with the front end of innovation, and companies searching for more radical types of innovation, tend to apply 'peripheral vision' and look beyond their current environment for linkages to widen their network (Gertsen et al. 2007; Julian et al. 2007; Bessant 2008; Aagaard and Gertsen 2011; Laursen and Salter 2006) as mainly a matter of increasing the inbound open innovation (Enkel et al. 2009). Such attempts to establish network-oriented innovation processes in established companies resemble the process of new innovative entrepreneurial firms, for example, as described by Sarasvathy (2001b) in studies of new entrepreneurial firms. These show that more recent innovative entrepreneurial firms are founded on an open culture, open organizational structure, and open networks, which give them advantages that mature organizations do not have (Sarasvathy 2001b). Although companies reach out for resources, including knowledge, there is also some evidence that there are still relatively few success stories of mature organizations engaging in successful formal network innovation (or 'coupled open innovation' [Sarasvathy 2001a]) such as alliances, joint ventures, consortia, and so on. The reason may be that, in the face of the single actor in the network, the network needs to strike a delicate balance of potential benefits and costs and avoid the setbacks of engaging in networks (Goduscheit 2009). This comes more easily to small new startups that have less to lose and more to gain. Established companies seem to be more prone to in- and outbound proprietary solutions to open innovation.

Large established organizations are often unable to compete with the focus and speed of startups for many reasons, including the bureaucracy and institutionalization that come with size and age. Given this complexity and establishment of larger corporations, organizing higher-impact innovation at "the edge of their organization" has been an important organizational structure

direction to take in pursuit of renewal. The various relatively more ‘internal attempts’ by which the agility of startups is pursued can be more or less deliberate and come in many forms, for instance, an influential individual champion (intrapreneur), the creation of (local or corporate-wide) culture or competence, an innovation targeting organizational unit (‘green-houses’: divisions, innovation functions/hubs, small innovative teams, corporate venture units, etc.), corporate incubators and accelerators, an ambitious innovation vision, building new content (technology, knowledge, competences, markets), and allowing calculated risks. Often, the purpose of renewal will have elements of, for instance, creating many new ideas/opportunities, reframing, “kill your own business”, disruption and/or cannibalization of existing business, risk-taking, agility of process, intense pace/speed, dynamics, autonomy, or team drive. These efforts can be seen as attempts ‘inside’ such established firms to renew themselves beyond their current business by benefitting from (re)creating, at least temporarily, the targets, conditions, and work modes usually associated with startups creating new business/value. Such efforts are first and foremost characterized by a high level of uncertainty. They require bringing new knowledge to the firm and take a considerable amount of time and resources to complete (dependent on the industry, though). These projects have the potential to successfully implement new technologies, address new markets, or successfully use new business models and, upon successful launch and maturity, radical innovation projects often lead to better performance for the firm and often require new user knowledge for successful adoption (Kristiansen and Gertsen 2014).

Lassen (2007, p. 230) summarized the key characteristics of what she coined as “Corporate Entrepreneurial Innovation”, describing them as exhibiting leveraged aspirations, proactiveness, risk-taking, and autonomous strategic behavior, with a logic of exploration and effectuation often implying a process of organizational innovation and a discontinuous, dynamic, and interactive innovation process. Such corporate attempts, which can be said to (re)create the innovativeness associated with startups, sometimes fail and the corporate patience for such attempts often lasts for only a limited number of years (O’Hare et al. 2008). On the other hand, it is obvious that innovation processes in established companies, including organizing, methods, and tools, serve as potential forerunners or role models for startups as they grow and need to formalize their processes. It is possible that the future will show corporate innovation approaches that increasingly mix elements from radical innovation/corporate entrepreneurship with design approaches and entrepreneurship (mixed models).

The Design Street

In recent decades, design has increasingly become a strong influence on businesses. Design management scholars argue that such things as innovation (Verganti 2009), strategy (Mintzberg and Lampel 1999), organizations (Brown 2009), and business education (Dunne and Martin 2006) can be advanced and transformed through design. The aim is somehow to bridge the world of design with the world of management and corporate business (De Mozota 2006). However, while many alternative business management perspectives and disciplines have been coupled with design (Erichsen and Christensen 2013), still relatively few studies have tried to compare the design process with the entrepreneurial process (although it seems, most recently, to be a growing trend, cf. the earlier section).

Still, the sparse literature on design and entrepreneurship does contain some valuable contributions (Sarasvathy et al. 2008; Seldon and Fletcher 2015), and there can be little doubt that the fields of entrepreneurship and design have much in common and much to offer each other (Nielsen and Christensen 2014), irrespective of whether entrepreneurship is seen as a process that unfolds within an existing organization or concerns the building of a new organization. In the following section, the different approaches to the design process are reviewed and compared with perspectives on the entrepreneurial process. The aim is to show the similarity between the two fields and thereby unfold key features that might be fruitful to consider in providing new valuable insights into the entrepreneurial process.

In the field of design, it is possible to identify four different approaches to the design process (Table 10.2). The first one is the rational approach, which was founded in the 1960s. The second approach is the reflective approach, which was introduced in the 1980s. Following that was the user-driven approach, which gained a foothold in the beginning of the new millennium, and finally, today's abductive approach to the design process. In the following section, these different approaches are further examined.

Table 10.2 Approaches to design process

Deductive perspective	Abductive perspective
<i>Rational approach</i>	
<i>Reflective approach</i>	
<i>User-driven approach</i>	
	<i>Abductive approach</i>

The Rational Approach

In the 1960s, the first design process models appeared. They were highly influenced by rational models of thinking and assumed that the design process could be divided into a number of linear steps, which, when followed, would result in a design (Rittel 1972).

The intention with the first design process models was to move away from arts and craft's intuitive and experience-based approach to design and to create stringent and explicit models based on objectivity and rationality, in order for design to reflect these values found in various scientific fields (Gedenryd 1998). One of these fields was the engineering design community, including the technical rationality embedded in the process models of this field (e.g., the historical account in the 'Innovation Motorway' section discussed earlier, based on Rothwell 1994). Another influence on the earliest design process models was the designers' typically limited role assigned in the innovation processes dominated by engineering thinking. As Andreasen et al. (2015) describe it: "products were feats of engineering and/or aimed at mass production in large, integrated firms" (p. 32), which only allowed the designer to focus on the products in respect to merely "wrapping it up to look good".

Reflective Approach

In the 1970s, several researchers started to challenge the understanding of the design process as something that could be merely based on rational logic. In particular, Rittel argued for an understanding of design as a matter of solving wicked or ill-defined problems (Rittel 1972). Rittel argued that, in contrast to traditional analytical problem-solving that dealt with problems having a clear definition and one solution ("tame problems"), the design problem space is filled with problems having no clear definition and therefore multiple possible solutions (Rittel 1972). Thomas & Carroll further argued that: "[d]esign is a type of problem solving in which the problem solver views the problem or acts as though there is some illdefinedness in the goals, initial conditions or allowable transformations" (1979, p. 5). This new understanding of the design problem was highly aligned with the increased focus on customers and the emerging perception of design as a means to attract customers and their money that gained footing during the 1970s (Andreasen et al. 2015).

The new understanding of the 'design problem' also paved the way for a new understanding of the design process which was introduced by scholars such as Bryan Lawson and Donald Schön in the early 1980s. In his book:

“How Designers Think” (1980), Lawson argues that designers are very different from scientists, in that scientists set out to study the problem, whereas designers learn about the problem as a result of trying out the solution. This means that designers co-develop the understanding of the problem along with the creation of the solution. According to Lawson, this also means that designers are more inclined to generate a fairly quick and satisfactory solution rather than prolonging the analysis of the problem.

Parallel with Lawson’s studies, Schön (1983) studied the design process in practice. He presented the design process as a reflective practice and argued that design is a “reflective conversation with the situation”. Schön’s theories built substantial insights into how designers reflect in action, reason, and make progress in design projects through steps of naming, framing, moving, and reflecting.

The User-Driven Approach

In the period around the late 1990s and early 2000s, much attention was given to the user or community for whom the design was intended. This also meant that new design process models were introduced with an increasing focus on the user. In the design community, it was vividly discussed whether this focus on the user was new or not, for instance, by Krippendorff (2006, p. 48), who argued that: “Designers’ extraordinary sensitivity to what artifacts mean to others, users, bystanders, critics, if not to whole cultures, has always been an important but rarely explicit acknowledged competence”. However, around the turn of the millennium, a myriad of new methods focusing on user research or need finding were introduced as an integral part of the design process (Laurel 2003; Merholz et al. 2008).

The Abductive Approach

The latest development in the field of design can be found under names such as design thinking or design-driven innovation. Over the last decade, both researchers and practitioners have argued that design is a relevant driver for innovation due to its ability to deal with uncertainty and complexity (Bruce and Bessant 2002; Brown 2008). The growing interest in ‘design thinking’ from other disciplines has challenged the design community to be more explicit about its theories, methods, and models. An important contribution to this came in 2011, when Kees Dorst introduced a model that combined different modes of reasoning and problem-solving with the notion of frames

(Dorst 2011). Dorst showed that, when designers work with wicked and ambiguous problems, in which it is not possible to define up-front ‘WHAT’ they are designing nor ‘HOW’ the solution is going to work, designers create a frame. The frame is a proposal for ‘HOW’ the solution will work in order to achieve an aspired value. Dorst’s model was building on research by Roozenburg and Eekels (1991), who argued that design reasoning is not deductive as in the scientific method but rather abductive. This means that designers start off with a set of seemingly unrelated facts, sensing that they are somehow connected and work actively on synthesizing them into a frame. As a result of this, both the solution and the hypothesis derive simultaneously. Today’s focus on design thinking and design-driven innovation also means that the design task is constantly expanding in terms of scope and challenge. As a consequence of this, recent design process models are developed for interdisciplinary teams with the aim of facilitating the creation of innovative frames, for example, the frame creation process model (Dorst 2015).

The Entrepreneurial Trail

‘Trail’ is here used as a metaphor for the nature of the phenomenon to be discussed, the entrepreneurial process. The precise significance of a trail is dynamically shaped by its users, the wider environment that it is part of, and the complex interactions of people who shape, meet at, and use the trail. Within entrepreneurship research, there has been a growing attention to the idea that similar features seem to apply to entrepreneurial processes. Yet, entrepreneurship research naturally embodies many different debates and assumptions about the nature of the entrepreneurial process. Different researchers have suggested many alternative theoretical lenses to understand entrepreneurship, among others, life cycles, evolutionary, interpretive, narrative, pragmatic, and complexity theory lenses (Steyaert 2007). While entrepreneurship, in overall terms, can be divided into three research traditions, the economic, psychological, and process tradition (Stevenson and Jarillo 1990), contributions portraying entrepreneurship as a process have been expanding in entrepreneurship research. In this section, we present a somewhat simplified insight into some of the most influential theories that portray the process of entrepreneurship under the headings of five distinct approaches. The five approaches, described by Nielsen and Lassen (2012), are as follows: the causal approach, the evolutionary approach, the contingency approach, the effectual approach, and the social constructivist approach. These are presented in Table 10.3.

Table 10.3 Process approaches to entrepreneurship

Predictive theories	Creative process theories
<i>Causational approach</i>	
	<i>Evolutionary approach</i>
	<i>Contingency approach</i>
	<i>Effectuation approach</i>
	<i>Social constructivist approach</i>

The Causational Approach

Causational approaches tend to dominate entrepreneurship theory building (Sarasvathy 2001a). They are wedded with the view that the entrepreneurial process is “a linear process in which entrepreneur volition leads to gestational and planning activities” (Baker et al. 2003, p. 256) and involves “the process of discovery, evaluation and exploitation of opportunities” (Shane and Venkataraman 2000, p. 218). Central to the approaches are concepts of intentionality, planning, resource acquisition, and the deliberate exploitation of opportunities, which also often represent the core content of entrepreneurial teaching (Honig 2004). Sarasvathy (2001a) defines causational processes this way: “[c]ausation processes take a particular effect as given and focus on selecting between means to create that effect” (p. 245). The entrepreneur first sets the concrete plan and the goal, and then he or she somehow selects the different resources and networks that are necessary and effective to reach the goal. Linking up to the positivist approach in scientific inquiry, rational and analytical reasoning dominate the predictive, structured, and causational view on the entrepreneurial process.

The Evolutionary Approach

A second overall approach which has attracted attention in understanding the nature of the entrepreneurial process is the evolutionary approach. Environmental regulative forces, and change in and struggles between these forces, are of essential importance to explain and predict entrepreneurial processes. Grounded in evolutionary theory, it is argued that the legitimacy of the new organization in an industry is fundamental to predict organizational birth and survival (Aldrich 1990, 1999). “Organization populations emerge when the goods and services they provide are seen as legitimate and desirable by the host society” (Reynolds 1991: 57). The book *Organizations Evolving* by Aldrich (1999) develops a framework that portrays the entrepreneurial pro-

cess as a dynamic and evolutionary process of environmental adaptation. While institutional theory in general is becoming an increasingly popular frame to comprehend the shaping of entrepreneurial processes (Bruton et al. 2010), it is also highlighted that entrepreneurs play a crucial role in changing the institutional environment (Hardy and Marguire 2017).

The Contingency Approach

In a holistic and dynamic fashion, the contingency approach embodies theories that take a broader approach to theory building in entrepreneurship. While this approach reflects a move away from the entrepreneurial process as a matter of evolutionary adaptation, it emphasizes how the entrepreneurial process is contingent on the dynamic interplay between important individual and contextual contingencies of the entrepreneurship process system. An example is Gartner's 1995 framework on new venture creation. Since everything more or less interacts with everything else, "researchers need to think in terms of combination of variables that make up each new venture creation. The creation of a new venture is a multidimensional phenomenon; each variable describes only a single dimension of the phenomenon and cannot be taken alone" (Gartner 1995: 697). The conception of the entrepreneurial process as an open, dynamic process of contingencies has carried with it a very popular theoretical approach, this being the effectuation approach.

The Effectuation Approach

Effectuation theory is often presented as a reaction against the causation approach (Sarasvathy 2001a). Effectuation is described by Sarasvathy (2008) as a logic of entrepreneurial expertise, a dynamic and interactive process of creating new artifacts in the world. The conceptual model of effectuation was initially introduced by Sarasvathy (2001a, b) and has since been further developed by Sarasvathy and Dew (2005) and by Sarasvathy in 2008. The theory suggests that the entrepreneurial process is dominated by uncertainty on many different levels: product, market, customers, and organization. It further argues that, under conditions of uncertainty, the entrepreneur adopts a decision-making logic that differs from that argued by rational models of entrepreneurship. Effectuation suggests that, under such highly uncertain and dynamic circumstances, targets and strategies can only be defined *ex post* through realization of market reactions to the product/service offered by the venture. In this perspective, goals change, are shaped and constructed over

time, and are sometimes formed by chance. So, instead of focusing on goals, the entrepreneur exerts control over the available set of means, the things over which the entrepreneur has control in the present moment (Sarasvathy 2001b). At the individual level, this includes personal knowledge, skills, and social networks. At the firm level, these means include physical, human, and organizational resources (Barney 1991).

The Social Constructivist Approach

The social constructivist process approach and the closely related narrative, discursive, phenomenological, and interpretative approaches have been named the ‘new movements’ of entrepreneurship research (Steyaert and Hjorth 2003, 2007). While they highly imply a break with the linear progressive idea of the entrepreneurial process, they address such things as social interactions and the unique, voluntarist, experimental, and imaginative actors involved as co-creators of the process along with the social constructed context forming the entrepreneurial process and being formed by it (Nielsen and Lassen 2012). Ontological assumptions that bring awareness to reality as unfolding from subjective and intersubjective imagination, social construction, or as a symbolic discourse tend to underlie these process theories. They have in common that they depict the entrepreneurial process as continuously emergent.

At the Intersection

Overall, it is rather obvious from the accounts that the three areas innovation, design, and entrepreneurship have (historically) developed their process understanding in a similar manner—the motorway, the street, and the trail seem to lead to an intersection. From being dominated by a rational logic, a sequential set of activities, intention driven, and a quite limited outward orientation, to an interpretation of the process as being more emergent, involving iterative cycles of activities, co-creation in the space between means and intentions, utilizing outward orientation and interaction, and exhibiting emerging and interacting social constructions among actors, high complexity, uncertainty, and ambiguity.

The development in the design field and the different approaches to the design process that have emerged over time have many similarities with approaches in entrepreneurship. It appears that the initial approaches in

design were based on causal or rational understandings in which the problems were clear and well defined and could be solved by a rational approach, whereas the later approaches to the design and entrepreneurial process acknowledged that problems might be wicked, ill defined, and influenced by uncertainty or ambiguity and therefore would have to be approached constructively or even abductively.

The five process approaches to entrepreneurship (Table 10.3) send a clear signal that different ontological assumptions of process underlie the dominant theories on the entrepreneurial process. Roughly, on the one side are theories that perceive the process as a concrete predictive structure, while on the other side are the theories that highlight the ever-changing, complex, imaginative, social interactive, and emergent character of the process. Steyaert (2007) refers to this 'other side' as the so-called creative process theories of entrepreneurship, which stand in contrast to the conventional theories of entrepreneurship. Overall, there seems to be two main trails of entrepreneurial process theories that dominate entrepreneurship research. The old and classical main trail, where one finds the static, deterministic, and predictive way of thinking, and a newer trail. The new trail is the creative area where imaginative actors create new artifacts, experiment, learn, and continuously fashion purpose and meaning out of the complex reality within themselves, between them, and between themselves and their environment.

The creative process theories of entrepreneurship and the design discipline presented earlier have much in common, and therefore the two disciplines are relatively easy to wed (Nielsen and Christensen 2014). Their common ground is powerfully manifested from the fact that the popular entrepreneurship effectuation theory is built on Simon's (1969) work "The Science of the Artificial" in which he presents the science of design (see also Sarasvathy and Simon 2000). In recent years, more and more researchers have spotted the synergistic opportunities of bringing design and entrepreneurship closer together. Sarasvathy et al. (2008) find that the entrepreneurial process is a design process; Press and Cooper (2003) depict the designer as an opportunistic entrepreneur; Boland et al. (2008) describe the entrepreneur as a design manager; Kortzfleisch et al. (2013) suggest the term entrepreneurial design thinking; Nielsen and Christensen (2014) present entrepreneurship as a new platform for the design management literature; and Dimov (2016) highlights the value of design science to create a science of entrepreneurship.

The effectuation approach and the social constructivist approach seem to have spurred the most recent interest in wedding the entrepreneurship field with the design field, since effectuation has similarities with concepts from the design field such as wicked problems, frame creation, and abduction. Even if

the causation and effectuation perspectives initially were identified in the area of entrepreneurship, it is reasonable to use these perspectives for understanding the different approaches to the design process. First, because the causation and effectuation problem spaces from entrepreneurship are similar to the 'rational' (tame) and 'wicked problem' understanding found in design (Møller et al. 2013). This similarity in the development of design and entrepreneurship allows us to compare the two fields more thoroughly, as it provides an understanding of which process models, methods, and tools from the field of design can have potential for entrepreneurship, and vice versa.

The innovation field and the entrepreneurial field was shown to have similarities in the development of process understanding, essentially because the two fields have their focus at different stages of the life cycle of organizations. Since most companies have been startups in an entrepreneurial sense, corporate innovation processes have roots in entrepreneurial processes, although the remnants of these may be scarce or even forgotten after years of adaptation and refinement. Thus, corporate innovation processes are often precursors, or even role models, for the development of entrepreneurial processes as the firm matures and gradually emphasizes more evolutionary and incremental types of innovation. The solutions developed by established companies, for instance, organizational structures, project management, methods, and tools, all to handle uncertainty in innovation processes, may be an inspiration and serve as forerunners for maturing startups.

The reverse seems to emerge as equally important: in order to leverage on innovation, established companies try to adopt or recreate startup conditions, seeking inspiration from the startup world to build higher-impact innovation. In this sense, startups serve as both a source of specific innovations and organizational role models. Such mutual inspiration, and also collaboration, through various corporate entrepreneurship activities, including startup incubators, external ventures, and traditional acquisitions, may further the development of mixed models combining the advantages of startups (e.g., agility, speed, and renewal) with the advantages of established businesses (e.g., resources and market access) to accommodate the ever-present challenge of balancing efficiency and renewal.

Similarly, abductive approaches to the design process and learning processes in radical innovation could mutually benefit from each other. Historically, the design area seems to have adopted ideas for more structured processes and a broader scope on design, whereas the corporate areas more recently have adopted ideas from 'design thinking' to make innovation processes more agile. These observations at the intersection lead to recommendations for future research.

Future research should include further comparing and contrasting practices and theories of design processes and creative entrepreneurial processes. In particular, the close relationship between the effectual approach and the abductive approach points to the potential for further investigation. Areas from the innovation management and the entrepreneurship streams of research and practice that may benefit from future research focus include (1) effectuation processes compared to learning processes in radical innovation, (2) mutual exchange and adoption of process methods and tools between radical innovation and entrepreneurship, and (3) exploration of mixed process models combining startups with established companies in new ways.

Conclusion

This chapter has explored processes of innovation, design, and entrepreneurship, and it can be concluded that these areas have undergone a somewhat similar development or have arrived at partly similar understandings of how creation processes unfold. The chapter has accounted for the development of theories portraying the process of entrepreneurship by proposing five approaches presented in the sequence that roughly reflect the development of understanding over time: causation, evolutionary, contingency, effectuation, and social constructivist approaches. It has accounted for the development of process thinking in innovation management from classical rational thinking to more recent approaches to cope with the need for complex high-impact innovations, which resamples those of entrepreneurship. Also, the similarity between both the entrepreneurial processes and the innovation processes are similar to the design processes and can potentially provide new valuable insights. Overall, the chapter suggests that further research comparing and contrasting the three areas of entrepreneurship, design, and innovation would have the potential to yield prosperous results through future research to advance the entrepreneurial processes field and suggests a more specific set of directions that this could take.

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11

Exit Perspective on Entrepreneurship

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Introduction

The most widely accepted and received wisdom about entrepreneurial performance is that most firms fail. Yet it is not at all clear what is meant by the phrase “most firms fail”. In fact, both the terms “most” and “fail” are not well defined. For example, does “most” mean “9 out of 10” as is argued based on the failure rates of venture capital-backed firms? Not quite. Consider the fact that out of about 500,000 firms that get started in the US every year, less than 1000 obtain any venture capital funding. Additionally, when the broader population of startup ventures is empirically examined, approximately 45% survive 8 years or longer (Kirchhoff 1997; Knaup 2005).

Based on data from the Organisation for Economic Co-operation and Development (OECD) publication “Entrepreneurship at a Glance”, on average 51% of all new ventures founded in industry in 2008 survived the first five years, with this number being lowest for the UK (40%) and highest for Austria (69%) (OECD 2016). And of those ventures that do exit, around a

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third are profitable at the time of exit (Headd 2003). Among the surviving ventures, only a very few experience high growth and become what is labeled “gazelles”: firms less than five years old, with at least ten employees, experiencing an annual growth of 20% in employees or turnover over a three-year period (OECD 2015). The share of gazelles out of the population of firms with ten or more employees in the industry in 2012 was, on average, 1.1% (ranging from 0.3% to 2.2%) if measured by growth in turnover and 0.8% (ranging from 0.2% to 3.1%) if measured by growth in employees (OECD 2015). So what does it mean to say “most firms fail”?

Empirical studies often use firm survival as the predominant indicator of entrepreneurial success and, as a consequence, exit as failure (e.g., see Millán et al. (2012)). But this approach has recently been challenged (Davidsson 2009), even if it is chosen solely based on data availability, because this simple measure of success and failure does not take the earnings, satisfaction, and well-being of the entrepreneur and their employees into account. Moreover, potential positive and negative emotions associated with entrepreneurial exit (Shepherd 2003) influence not only the decisions made as an entrepreneur and the performance of the new venture but also the choice to enter entrepreneurship in the first place or reenter in the future. In other words, the extant literature fails to fully take into account the intertwined relationship between firm performance and the aspirations of entrepreneurs and their stakeholders whose decisions and actions shape that performance. That is why it is necessary to rethink and clarify an exit perspective on entrepreneurial performance at all three levels of analysis: individual, firm, and society.

In general, firms enter and exit the economy for a variety of different reasons and in a variety of different ways. Some “firms” are not firms at all. They are simply entities created on tax forms to account for additional income earned outside full-time wage employment. Others are merely aspirational in the sense that the founders hope to build successful firms but do not in fact earn any returns nor employ others. In some industries, such as restaurants and mobile apps, both entry rates and exit rates may be very high due to low entry barriers.

Individuals also enter and exit entrepreneurship. The choice to enter entrepreneurship or not has been more widely studied through theories such as the occupational choice model (OCM) (Evans and Jovanovic 1989) within economics but also based on ideas and concepts from other fields like personality traits from psychology (Cromie 2000) and social networks from sociology (Aldrich and Zimmer 1986), to name a few. In addition, the potential career paths or events influencing the probability of entering entrepreneurship have been studied recently within the sociology literature by investigating the impact of working in the public sector (Özcan and Reichstein 2009), old and

large firms (Sørensen 2007), or industries where the start-up rate is high (Heblich and Nielsen 2017). Another interesting twist is offered by Venkataraman (2002) who argued that entry into entrepreneurship is an avenue of exit for victimized stakeholders in large firms. Entrepreneurial careers and events leading to exit, however, continue to be a relatively new area of research (DeTienne and Wennberg 2015).

Moving to the society perspective, the main focus has also been on the positive effects of surviving new ventures as only these contribute to increased competition for established firms and have the potential for job creation and innovation (Van Praag and Versloot 2007; Haltiwanger et al. 2013). However, the exiting firms might leave a lasting impact on society if the entrepreneurs learn valuable skills for their future professional career or life course, whether this is as an entrepreneur in a new firm or as an employee in an established firm. Moreover, peer effects arise if individuals in the entrepreneurs' environment are also encouraged or discouraged to found a new venture or learn valuable lessons from even exited entrepreneurs' experiences (Davidsson 2009).

When we carefully consider the importance of exit from the perspective of society as a whole, we begin to see how it is implicit in the very fundamentals of entrepreneurship theories, beginning with those propounded by Adam Smith, Frank Knight, Joseph Schumpeter, and Ronald Coase. The very notion of competition, whether within existing markets (as in the case of classical and neoclassical economics) or over time across markets in their creative destruction as in the Schumpeterian perspective, entails entrepreneurial exit (Schumpeter 1947). As Knight, Coase, and more recently Buchanan and others argue, markets require entrepreneurs to create innovations, some of which will survive and some of which will die (Boudreaux and Holcombe 1989; Buchanan and Vanberg 1991). Therefore, entrepreneurial exits are a crucial part of the free market system functioning well or even functioning at all.

Add to this the historical fact that institutions such as the limited liability company were invented just so human beings could take on risks and conduct economic, technological, and investment experiments necessary for societal progress without jeopardizing personal lives and family prospects that could then disastrously create a vicious cycle of disincentives for entrepreneurship and employment generation (Micklethwait and Wooldridge 2003).

In this chapter, we first introduce a general perspective on exit, including important concepts and ideas not specific to the entrepreneurship domain, which is used to develop a systematic taxonomy of entrepreneurial exit. This taxonomy is then related to existing literature on firm, entrepreneurial, and societal performance with the aim of discussing when entrepreneurial exit can be characterized as a failure and outlining potential conflicts between the

interests of the entrepreneur and society. Finally, a dynamic framework for studying entrepreneurial exit and the consequences for the post-exit career and life course are introduced with specific examples of promising avenues for future research on this new and important topic in entrepreneurship.

The Exit Perspective

Investigating trajectories or turning points resulting in exit is interesting and relevant in a variety of very different areas. Examples could include political scientists looking into Britain's decision to leave the European Union (i.e., "Brexit"), sociologists studying children who were able and unable, respectively, to exit the socioeconomic environment of their parents (i.e., social mobility) or business economists interested in shedding light on the decision of a company to move its production facilities to another country (i.e., offshoring).

The concept of trajectories and turning points, as discussed by Reimer (2014), can also be applied to entrepreneurial exit. As mentioned in the introduction, few scholars have taken up the task of investigating the careers or events influencing the probability of entering entrepreneurship. Even when taking into account the selection of individuals with little predisposition for entrepreneurial activity into the public sector, Özcan and Reichstein (2009) find that public sector employment, over time, decreases the probability of entering entrepreneurship, for example, due to the development of a non-entrepreneurial mindset and the compensation system in public sector. Sørensen (2007) also finds a significant effect from the workplace environment since individuals working in old and large firms are less likely to enter entrepreneurship when controlling for individual characteristics.

In a recent special issue on a careers perspective on entrepreneurship (Burton et al. 2016), Thébaud (2016) examines inflexible organizational practices that do not allow for life events or turning points, such as pregnancy and caregiving responsibilities, that predict women's entry into self-employment. Entrepreneurship offers a viable exit opportunity not only for women facing turning points in life but also for managers faced with morally troubling and repugnant situations within the corporate setting, an argument made in some detail by Van de Ven et al. (1999).

Arguing for the importance of exit in an even larger setting, namely in the political science of a more equitable and just society, Kukathas (2003) makes a case for freedom of association being the basis for an open society with cultural diversity and variety in group loyalties. To paraphrase an elaborately

and comprehensively argued thesis, a free society cannot really be free if people cannot exit from groups and associations they are born into or even choose to belong to. However, Kukathas does not explain how these exit pathways may be built. We believe there is exciting new and fertile ground for future research to work out the role of entrepreneurship in this influential thesis beginning to develop in contemporary political theory. While we hope to contribute to that “big ideas” conversation down the road, developing an actual framework for that conversation would lead us too far beyond the scope of this chapter. All we wish to do here is to point out the fact that the exit perspective we are arguing for here is not confined only to the current conversation in entrepreneurship. It moves both back to the classics of political economics and forward to budding new developments in contemporary political theory as well.

These studies emphasize the importance of labor market choices and careers for successful entry into entrepreneurship, but it is important to make the distinction between a deliberate choice to become self-employed or a choice made out of necessity. In the latter case, it could be misleading to use the labels “choices” and “careers”. In fact, this very distinction is used in the entrepreneurship literature when addressing the start-up motivation of entrepreneurs. The Global Entrepreneurship Monitor (GEM) makes the distinction between opportunity-based and necessity-based entrepreneurship in their survey-based start-up statistics (Global Entrepreneurship Monitor 2017). The classic textbook example of the latter is the objective turning point of unemployment but, as is emphasized in Reimer (2014), the individual’s own experience of the turning point is equally important, that is, the subjective turning point, in terms of whether they act, why they act, and how they act. Some would view unemployment as an opportunity to become an entrepreneur, others as a necessity, and some would not even consider the option of self-employment at all. That is, the potential turning point would have a different impact on different individuals. These ideas are very useful for thinking about trajectories and turning points regarding entrepreneurial exit as well, but so far the entrepreneurship literature and empirical research have been almost solely focused on investigating entry and survival, so this will be our starting point for developing an exit taxonomy and dynamic framework of entrepreneurial exit.

Finally, in addition to entry into entrepreneurship through necessity in developing economies, we would like to point out that even now, for billions of people, exit out of a job into entrepreneurship is not really an option. Exit out of entrepreneurship into a secure job is often the prime aspiration.

Exit = Failure? Survival = Success?

Numerous empirical studies include survival (as opposed to exit) as the main indicator of entrepreneurial success (as opposed to failure) based on the simple logic that survival is necessary to achieve success as an entrepreneur as seen from multiple levels of analysis. At the individual level, entrepreneurs, in general, are found to be more satisfied with their work situation than employees (Hundley 2001), even if they earn less than they could as an employee (Hamilton 2000). At the firm level, survival is a precondition for growth of the new venture, and, at the level of society, both survival and exit are necessary to sustain competition in any given market and even for the efficient functioning of markets themselves. Around half of all new ventures founded in advanced economies close down within the first three years, which is evident from the statistics in the introduction of the chapter. Given this high rate of exit in the first years after starting up, the main goal of empirical research has been to identify factors that increase the likelihood of new venture survival (i.e., decrease the likelihood of exit). These studies can often be categorized into studies focusing on the individual (e.g., the importance of personality, cognition, preferences, values, attitudes, education, experience, training, role models, peers, and support) or the environment (e.g., the importance of the economic, political, or cultural environment measured at the industry, region, or national level) (Shane 2003; Sarasvathy 2004; Nielsen 2011). Hence, there is an abundance of factors related to the individual, situation, or environment argued to be crucial for survival and therefore presumed successful startup.

Starting with individual characteristics, the main focus in empirical studies has been on human and social capital when exploring new venture performance and on personal traits for explaining the decision to enter entrepreneurship. Several studies have found a positive effect of human capital on firm performance (for an overview and critical assessment, see Unger et al. (2011)). In general, the main findings are that education (Millán et al. 2012; Nielsen 2015; Brüderl and Preisendörfer 1998), work experience in the startup industry (Bosma et al. 2004; Nielsen 2015; Brüderl and Preisendörfer 1998), and previous self-employment experience (Millán et al. 2012) are found to increase the probability of survival. In addition, work experience in the startup industry has a positive effect on the growth of a new venture (Bosma et al. 2004; Nielsen 2015; Brüderl and Preisendörfer 1998). Regarding the survival of a new venture, the importance of the social capital of the founder for firm performance, emotional support (Brüderl and Preisendörfer 1998; Bosma et al. 2004), active help from the spouse, support from strong ties (Brüderl and

Preisendörfer 1998), owning the venture with others, having frequent contact with previous work colleagues (Nielsen 2015), and having self-employed relatives (Millán et al. 2012) are all shown to be factors that increase the new venture's chances. Moreover, several factors related to one's social network have a positive effect on the growth of the firm: network size, time spent on networking, the presence of professionals in one's personal network (Ostgaard and Birley 1996), active help from a spouse, support from strong and weak ties (Brüderl and Preisendörfer 1998), and contact with other entrepreneurs (Bosma et al. 2004). Finally, a study by Millán et al. (2012) includes both individual as well as environmental factors in the empirical design, where the latter includes the business cycle and labor market institutions.

The unemployment rate, the tax rate on dividends, and unemployment benefits are all found to have a positive effect on exit from self-employment, while the opposite is true for startup and employment incentives (Millán et al. 2012). Recent studies have also begun looking at post-exit performance in the job market. Using registry data from Norway, Luzzi and Sasson (2016) examined the earnings of individuals who exited entrepreneurship in favor of paid employment. While the study found an overall positive relationship between the earnings of these exited entrepreneurs in comparison to matched employees who had not been entrepreneurs, results showed interesting differences between the earnings of exited entrepreneurs whose firms had performed well versus those whose firms had not performed well. Strong performance of the exited firm predicted a premium for the exiting entrepreneur. But weak performance did not predict a discount.

The factors included in all of the studies listed earlier in the chapter are relevant for the dynamic model of exit that we put forth later in this chapter, but first, a taxonomy of exit is developed to critically assess when exit (as opposed to survival) can be interpreted as failure (as opposed to success).

A Taxonomy of Exit

Recently, scholars have taken one step back and devoted more attention to critically assess whether survival (and exit) is a good measure of success (and failure). It is important to recognize that, in addition to involuntary exit due to bankruptcy or business failure events, entrepreneurs can also exit for a variety of voluntary reasons including life events such as marriage or divorce, and so on. Furthermore, firms can exit with positive, zero, or negative cash flows. Including these two dimensions of exit, Table 11.1 introduces a taxonomy of entrepreneurial exit as the first contribution of this chapter. Based on recent

Table 11.1 A taxonomy of exit

Cash flow	Type of exit	Reasons	Estimate (% of firms in the economy)
Negative	Involuntary	Bankruptcy: exit with money owed to creditors	<10% (SBA)
Zero	Involuntary	No income, need to find a job Need to retire, but no buyers Personal contingencies: <ul style="list-style-type: none"> • Death • Divorce • Illness • Family reasons to move 	15–27%
Positive	Voluntary	Retirement <ul style="list-style-type: none"> • Sale of assets • Earn out Sale of business IPO	18% (Headd)
Positive	No exit (Survival)	Leave to heirs Income < S&P 500 and/or wages in labor market Cannot sell or go IPO Income > S&P 500 and/or wages in labor market	30% (Detienne) 45% (Kirschhoff; Knaup) 55–68%

Note: Estimates are mostly from US data

studies, about 10% of firms file for bankruptcy. About 45% survive at least 8 years. Of the 55% of firms that exit, only one-third are profitable at the time of exit, although profitability to some extent can be a strategic decision (e.g., spending profits to expand market share and, thus, initial public offering [IPO] value). About half the population of entrepreneurs return to paid employment within seven years, whether after voluntary or involuntary exit (Luzzi and Sasson 2016).

The distinction between involuntary and voluntary exit in Table 11.1, however, can sometimes be unclear. Take bankruptcy, for instance. A quick Google search reveals websites listing all the disadvantages of bankruptcy (e.g., hard to obtain financing in the future) as well as the advantages (e.g., the possibility of erasing old tax liabilities), emphasizing that it, to some degree at least, is an active choice. In addition, retirement from an entrepreneurial career can be voluntary, for example, leaving the business to enjoy other parts of life, as well as involuntary, for example, due to illness or pressure from others such as a spouse or business partners. Finally, the idea of turning points introduced earlier makes it relevant to ask the question: “which entrepreneurs are more likely to experience the different reasons for exit, act on them, see it as a voluntary or involuntary exit, and see it as a turning point regarding any

future entrepreneurship or labor market career?” These ideas are further developed in the dynamic perspective developed later in the chapter, but, before that, we now explain the taxonomy in Table 11.1 with a critical assessment of whether new venture survival and exit can be considered a success or failure. The following discussion focuses solely on success and failure as assessed at the individual level and, later, broadens it to the level of society.

Exit: From the Point of View of Individuals

Consider the first scenario in Table 11.1: “Bankruptcy: Exit with money owed to creditors”. This type of exit contains the strongest definition of failure for the individual entrepreneur. The bankrupt entrepreneur’s debt could have serious repercussions on future career choices and, thus, work and life satisfaction. Moreover, the period following exit could be filled with negative emotions such as grief not only for the entrepreneur but also for members of his or her household (Shepherd 2003). However, if the entrepreneur learned valuable lessons from the venture experience and has the possibility to reenter entrepreneurship (e.g., has the desire, capital, and moral support needed), then even bankruptcy need not be a failure in the long run (Nielsen and Sarasvathy 2016). The European Commission has recently opened the discussion of whether to make it easier for previously bankrupt entrepreneurs to restart (European Commission 2015), which should be seen in light of most empirical studies finding entrepreneurs, regardless of their previous failure and success nor the verifiable human capital of the founder, to be restricted regarding available finance (Parker and Van Praag 2006; Van Praag 2005; Bhide 2000). Nielsen and Sarasvathy (2016) explore who learns the correct and incorrect lessons from previous venture experience—success and failure—and takes a second chance as an entrepreneur. Thus, the authors allow for the venture experience to result in subjective turning points and an assessment of the venture experience. The empirical findings in Nielsen and Sarasvathy (2016) are that previously failed entrepreneurs are more likely to restart than previously successful entrepreneurs, but these former entrepreneurs are also more likely to fail again, which suggests overconfidence in light of failure, even when excluding potential necessity entrepreneurs (i.e., those with few alternative options in the labor market). However, highly educated entrepreneurs, on the other hand, are found to turn previous failure into future success, but these entrepreneurs are not found to be more likely to take a second chance. Finally, the study shows that female entrepreneurs are less likely to restart, which could be due to under-confidence from failure (e.g., by

attributing the poor performance to a lack of entrepreneurial skills) or even success (e.g., by attributing the success of the new venture to luck or influence from powerful others). A related question is whether venture experience is positively valued in a subsequent labor market career, whether the ability of employees to “act entrepreneurial” within established firms (i.e., intrapreneurship) is important for firm performance (Antoncic and Hisrich 2001).

At the other end of the spectrum, the voluntary sale of a firm with positive cash flow is another interesting scenario in Table 11.1. This type of exit appears to be the strongest case of success, together with continuing entrepreneurs with positive cash flow. Taken together, Table 11.1 provides ample reason as to why it could be misleading to use survival (as opposed to exit) as a measure of success (as opposed to failure) in empirical studies. Nevertheless, if the entrepreneur ends up worse off in terms of income or work satisfaction after exiting the firm, which is hard to predict at the time of the sale, then even the voluntary sale of a profitable firm could unintentionally end up being a failure for the individual entrepreneur. The entrepreneur could evaluate an offer from any potential acquirer and compare this to the expected future earnings of continuing the firm, but the potential success in a new venture or regular employment, not least measured by work satisfaction, is hard to predict since the entrepreneur can be emotionally attached to the present firm and overly optimistic about future success. Again, the turning point of getting an offer to sell one’s venture is assessed differently by different individuals. Some entrepreneurs are emotionally attached to the company and do not want to part with it (under-confidence from success), while others are certain that the next venture will be just as successful as the first (overconfidence from success).

Finally, the “no exit” scenario in Table 11.1 is interesting from a success or failure perspective as well. Since the firm survives and has positive cash flow, the scenario appears to be a clear case of success. However, this assumes that remaining with and running the venture one has created never entails any opportunity costs. Almost every introductory textbook in microeconomics begins with the ability to make a rational decision, which in turn emphasizes the pitfall of ignoring opportunity costs. Opportunity cost is the value of the best alternative that is foregone when making a decision. Hence, continuing with one’s entrepreneurial career may be the wrong decision if the individual is worse off in the new venture compared to the best alternative, often taken to be an employee in an established firm. “Worse off” could be in terms of earnings, which is the common measure in empirical studies since it is often an available measure. But in strict microeconomics terms, the correct measure should be in terms of utility (satisfaction) enjoyed. It is straightforward to

argue that income contributes positively to utility, but sociologists and psychologists recognize that many other dimensions of work are important as well: the intrinsic dimension (e.g., how interesting are the work tasks? Can one make use of skills and abilities?) and other extrinsic dimensions than the purely financial one—convenience, co-workers, and career (Kalleberg 1977). Entrepreneurs are often found to be more satisfied than employees because they are “their own boss” and, hence, enjoy more autonomy (Hundley 2001), even if they, on average, earn less than they could in the labor market (Hamilton 2000). Thus, the potential problem presented in the “no exit problem” is the absence of a subjective turning point, since the individual entrepreneur could be more satisfied or earn more money in the alternative scenario as an employee but, since the individual is satisfied as an entrepreneur, does not take the opportunity cost into account. Entrepreneurs only extrinsically motivated in terms of financial performance, and not emotionally attached to the firm, will, however, mainly be focused on Return On Investment (ROI) when evaluating whether to continue the firm or exit. The same is true for investors and other stakeholders in the venture.

These examples illustrate why a taxonomy of exit and critical reflections on the conditions leading to successful and unsuccessful exit, respectively, are important. Future empirical studies could build on these ideas to shed more light on the share of successful and unsuccessful exits and challenge the view that half of all new ventures fail as is often the conclusion from the survival statistics presented in the introduction.

Comparing Perspectives of the Individual and Society

The second contribution of this chapter is to introduce multiple levels of analysis when assessing entrepreneurial exit. As previously stated, it is implicitly assumed in the vast majority of empirical studies that survival is equal to success since survival is in the interest of both the entrepreneur and society as well. However, it is not always the case that success for the individual entrepreneur also equals success for society, which the exit scenarios from the previous section can be used to illustrate.

Starting with the case of bankruptcy, it is obvious that the financial and emotional turmoil after exit could have a negative effect on the entrepreneur and other members of the household. But it could also have a negative impact on society in several different ways. For example, bankruptcies may reduce labor market participation and productivity. Investors and others interacting with bankrupt entrepreneurs may become hesitant to work with other entre-

preneurs, thereby reducing the availability of finance and other resources for all entrepreneurs. New, high-potential entrepreneurs may decide not to enter entrepreneurship in the proximity of bankruptcies. Nevertheless, lessons from venture experience, even from bankruptcies, may encourage others to avoid mistakes in venturing. In certain cases, this learning could inspire product market and process innovations that overcome the weaknesses that led to bankruptcies, leading to better new ventures, and all of these could add up to a positive effect on society. This peer effect and learning by observing others, however, would also be present under exit without bankruptcy and, hence, better for the individual and society.

The second exit scenario, voluntary sale of a venture with positive cash flow, appears at first to have an overall positive effect on society. While that is indeed true in many cases, it may not always be so. For example, the prediction of such a uniformly positive effect rests on the assumption that the firm, after acquisition, continues on the same growth trajectory as before. But this need not be the case. As a recent meta-analysis of post-acquisition performance shows: “[w]e find robust results indicating that, on average and across the most commonly studied variables, acquiring firms’ performance does not positively change as a function of their acquisition activity, and is negatively affected to a modest extent. More importantly, our results indicate that unidentified variables may explain significant variance in post-acquisition performance, suggesting the need for additional theory development and changes to M&A research methods” (King et al. 2004, 187). Moreover, society is worse off if the acquisition decreases competition in the market and dampens innovative activity in the acquired firm (Banerjee and Eckard 1998).

Finally, the share of new firms that survive the critical first years is considered a crucial statistic in databases such as OECD and Eurostat. As previously mentioned, survival (exit) is seen as success (failure) since it is the prerequisite for competition and growth. However, the vast majority of entrepreneurs start up without employees and never grow (Coad et al. 2017) because either they have no intention of growing (e.g., solo lifestyle or hobby entrepreneurs), are poor performers, or are capital constrained due to lack of verifiable human capital (Parker and Van Praag 2006; Van Praag et al. 2005; Bhide 2000). If conditions for growth are present but the founder does not want to grow the firm, for example, because of the resulting increasing specialization and loss of control, there is a conflict between the priorities of society (e.g., job creation) and those of the entrepreneur (e.g., work satisfaction). This conflict can also be present between the entrepreneur and investors in the new venture, since the latter are often interested in high and fast growth due to time constraints, that is, investors have to return funds to their fund investors usually within

ten years, so exit is a necessary condition for success. Indeed, if the vast majority of entrepreneurs are so-called MUPPETS (economically “M”arginal, “U”ndersized, “P”oor “P”erformance “E”n“T”erprise“S”) and not “gazelles”, using the jargon from Nightingale and Coad (2013), then it could be in the interest of society and investors to reallocate the entrepreneurs to established firms. Even for presumed promising and often-promoted academic entrepreneurs who are equipped with a large knowledge stock as well as the ability to continuously learn and adapt to a complex and changing environment (Nielsen 2015), it is still a valid question whether these individuals create more value to society and investors by running their own firm or by working in established firms with more resources available (e.g., working on projects in an R&D department with access to finance, labor, and information).

In sum, entrepreneurial exit need not be a failure at the level of the individual when we take into account the variety of motivations for exit on the part of the individual entrepreneur. Moreover, entrepreneurial exit that might be considered a failure (success) at an individual level might not be a failure (success) from society’s point of view.

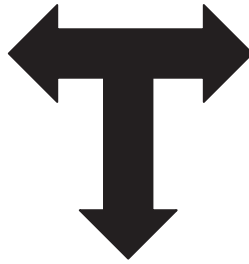
We have thus far created a taxonomy of exit and examined it from the point of view of both individual entrepreneurs and that of society. If we are to build on this to identify interesting new roads to explore in future research, we need to consider the dynamic aspects of the interactions between entrepreneurs and their experiences in the exit environment for the individual entrepreneur as well as society. We proceed to that task next.

Exit: From a Static to a Dynamic Perspective

Early models of entrepreneurial exit such as OCM (Evans and Jovanovic 1989) only included successful and permanent exit from entrepreneurship and did not distinguish between the different types of exits discussed in Table 11.1. The OCM assumes that each individual is endowed with a fixed set of entrepreneurial abilities that determine earnings in entrepreneurship, but that these abilities are *ex ante* unknown to the entrepreneur and are only revealed through actual entrepreneurship. As the entrepreneur learns about these fixed abilities through the performance of their new venture and the resulting earnings, often labeled “passive learning” in the literature, he or she either continues the entrepreneurial career or exits for good if the certain earnings that can be obtained as an employee on the labor market are higher than the realized earnings as entrepreneur. No “active learning” from the venturing experience—success or failure—can augment the initial endowment of entrepreneurial abilities (Fig. 11.1).

The entrepreneur:

Traits and cognition
 Skills and abilities
 Human capital
 Social capital
 Start-up motivation

**The entrepreneurship experience:**

Firm type
 Industry type
 Start-up strategy
 Firm performance
 Exit type

The exit environment:

Labor market career: education, retirement, out of labor force, unemployment
 Individual outcome: earnings, work satisfaction, happiness, stress, illness, divorce,
 Society outcome: innovation, job creation, competition, productivity, peer effects

Fig. 11.1 A dynamic framework of post-exit performance

We put forth a framework in Fig. 11.1 that takes both passive and active learning from venturing experience into account when assessing several potential measures of post-exit outcomes, whether these are measured on an individual level (e.g., earnings or satisfaction), societal level (e.g., productivity and innovativeness), or both (e.g., unemployment). In addition, Fig. 11.1 illustrates the interdependence and interaction between the entrepreneur, on the one hand, and the entrepreneurship experience, on the other, when assessing the post-exit outcome. Note that the entrepreneurship experience encompasses important potential turning points, resulting in a specific type of entrepreneurial exit, dependent on the person and subjective experience.

Several factors could be included as dependent and independent variables under the three headlines in Fig. 11.1, for example, the human and social capital measures from existing research mentioned earlier in the chapter. Starting with “the entrepreneur”, these factors relate to preferences/motivation and other human capital (i.e., innate and acquired) and social capital. Presumed innate factors like intelligence and personality traits are important as they have a direct influence on post-exit performance and an indirect influence through the subjective and objective entrepreneurship experience (e.g., firm performance and learning) and the turning point resulting in entrepreneurial exit. Changeable factors such as preferences, knowledge, and networks have indirect effects on post-exit performance since these factors both influence, and are influenced by, the entrepreneurship experience. That is, preferences, knowledge, and networks influence the type of venture started, but

subsequent performance and the possible exit type also influence preferences, knowledge, and networks, to use the categorization from Sarasvathy (2008).

Turning to “the entrepreneurship experience”, this experience could consist of the type of firm (e.g., lifestyle or professional), type of industry (e.g., degree of uncertainty/innovation), solo or team entrepreneur, and, finally, the type of exit based on the previous framework put forth (e.g., positive or negative cash flow? voluntary or involuntary exit?).

Finally, several factors could be studied in the post-exit environment dependent on whether success or failure is assessed on an individual or societal level. Starting with the former, post-exit earnings or work satisfaction could be used as dependent variables; however, more indicators related to the labor market career, for example, unemployment, occupational choice (private/public, small/large firm), education, or general well-being and sociopsychological consequences could be included, for example, happiness, stress, illness, divorce, or stigma. This would allow for a broader evaluation of the consequences of entrepreneurial exit dependent on personal characteristics and type of exit. Turning to the latter, the focus is on indicators related to job creation, innovation, competition, peer effects, and productivity.

Areas for Further Research

Based on the discussion in the previous section, the following broad and related research questions could be interesting to explore in future studies based on the dynamic framework of entrepreneurial exit developed in this chapter. First, what is the relationship (and interdependency) between the characteristics of the entrepreneur and the entrepreneurship experience? Second, how are characteristics of the entrepreneur related to potential subjective (or objective) turning points and, hence, the type of exit, based on the exit taxonomy introduced in this chapter? Third, what is the lasting impact on the entrepreneur, stakeholders, and/or society after entrepreneurial exit? These research questions need to be analyzed together after selecting a specific focus area and level of analysis. The following four examples of focus areas help illustrate the importance of taking both the entrepreneur and the entrepreneurial experience into account when assessing post-exit performance. In order to keep the analysis simple, in the examples mentioned later in the chapter, we focus primarily on post-exit success and failure on an individual level.

Human Capital and Post-Exit Performance

The first example discusses the importance of taking human capital into account when assessing post-exit performance. In general, entrepreneurs with more human capital (e.g., education and industry experience) are found to perform better due to a greater stock of knowledge and ability to gain new knowledge and, thus, to adapt to an uncertain and changing environment (Nielsen 2015; Nielsen and Sarasvathy 2016). In addition, Luzzi and Sasson (2016) find that the performance of the new venture before exit is positively related to post-exit earnings but only if the firm performed well. Hence, entrepreneurs with more human capital are expected to be more likely to continue the entrepreneurial career path or exit voluntary through the sale of the firm. In the latter case, the entrepreneur is positively rewarded in the labor market (and the entrepreneurship experience has already paid off), while, in the former case, the opportunity cost of entrepreneurship increases, making voluntary exit more desirable. In addition, other effects need to be taken into account. First, based on the findings in Luzzi and Sasson (2016), since individuals with more human capital are also expected to work in more innovative industries, the earnings premium of the entrepreneurship experience must be higher. Second, more attention needs to be directed toward poor performing entrepreneurs. Nielsen and Sarasvathy (2016) find that first-time entrepreneurs who close down within the first three years are also more likely to restart and then close down a restart venture, respectively, unless, however, the entrepreneur is highly educated. Educated entrepreneurs, however, are not more likely to take a second chance, making them prone to committing what the authors label as a Type I error, that is, not starting up again even though they should. This conclusion, however, is too simple, since it fails to take into account the extent to which previously failed entrepreneurs are rewarded or punished in subsequent employment. Indeed, if only entrepreneurs with a high stock of human capital have the ability to learn from failure, only these individuals should be rewarded, and thus exit, not even involuntary, need not be characterized as failure. Future empirical research could shed more light on the value of entrepreneurial experience for highly educated individuals, by looking at both individual-level measures of success and the societal effect.

Initial Investments and Post-Exit Performance

The second example discusses the importance of the size of initial investments in the new venture for post-exit performance. It is included since empirical studies often conclude that entrepreneurs, especially those with limited verifi-

able human capital, often are capital constrained (Bhide 2000; Parker and Van Praag 2006) and, thus, are forced to invest less than desired in the new venture. On the contrary, however, overall successful entrepreneurs with a proven track record of several startups, including successes and failures in different industries, also act as if they were capital restricted when founding a new venture (Sarasvathy 2008). These so-called expert entrepreneurs studied in Sarasvathy (2008) are found to apply the “affordable loss” principle when founding a new venture, one of the five principles of effectuation. The first takeaway of this strategy for the analysis at hand is that entrepreneurs who invest little, or not more than they can afford to lose, as the name implies, are less likely to go bankrupt with subsequent financial and emotional consequences for the post-exit career and personal life. But are these ventures inefficient, given their small size (or “MUPPETS” to use the terminology from the earlier discussion), or are they better equipped for dealing with an uncertain environment? Bhide (2000) and Sarasvathy (2008) offer some insights. Starting with the former, Bhide (2000) categorizes opportunities based on three dimensions: required investments, expected profits, and uncertainty in profits. Since opportunities with high expected profits also require high investments, these opportunities are mainly exploited by established ventures that are not capital constrained. The remaining opportunities that can be exploited by entrepreneurs are then characterized by low expected profits and required investments, making uncertainty in profits crucial. New ventures exploiting opportunities with low uncertainty in profits could be labeled as MUPPETS, while new ventures exploiting uncertain opportunities are labeled “promising entrepreneurship” (Bhide 2000). Thus, promising entrepreneurs invest little, have little competition from established firms, but, nevertheless, have the chance of achieving high growth even if the expected profits (mean profits) are low. Furthermore, small initial investments make these promising ventures better capable of adapting to an uncertain environment, which is a significant part of the dynamic model of effectuation introduced by Sarasvathy (2008). As previously mentioned, the entrepreneur invests only what he or she can afford to lose and, instead, adds additional resources through commitments from other stakeholders. Each new stakeholder brings new means available to the firm (e.g., knowledge and networks) but also new goals for the venture, which is important in an uncertain environment where learning and adaptation are crucial. In sum, since the likelihood of “hard” or “costly” failure in the form of bankruptcy is low and the chance of learning and high profits and growth still present, this type of “experimental” entrepreneurship favored by both capital-constrained novices and experts seems to result in a favorable post-exit environment, regardless of whether the assessment is on an individual or soci-

etal level. More empirical research exploring the role of experimental entrepreneurship on post-exit performance is needed since survival (exit) could be a poor measure of performance.

Startup Team and Post-Exit Performance

The consequences of founding a new venture in a team versus as a solo entrepreneur is the third example. The benefits of having other stakeholders on board have already been emphasized in the dynamic model of effectuation introduced in the previous example. Additional positive effects on the post-exit environment is discussed here. The literature suggests that the process of realizing a new venture, as well as running it in the critical first years, demands a lot of working hours compared to the alternative of being in the labor market. Hence, the period can be very stressful for the individual entrepreneur as well as the spouse (Dahl et al. 2010). Recent studies have emphasized the importance of moral support, in addition to professional support, to cope with this turbulent time. Hanlon and Saunders (2007) find that the former type of support (e.g., advice and emotional support) is more often mentioned as crucial for realizing the new venture compared to the latter (e.g., finance, labor, or strategic information). Aside from receiving this support from family ties outside of working hours, it can be obtained continuously by someone in the same boat, as is the case with a founding team. The implications for exit type and post-exit performance are positive if being in a founding team enables group reflections on performance, positive as well as negative, and increases learning. In addition, the grief and personal stigma of failure that is often portrayed in the literature as hindering restart and increasing the sociopsychological risk of entrepreneurship is reduced. Nielsen and Sarasvathy (2016) find evidence of this, since team entrepreneurs who fail in their first venture are more likely to restart compared to solo entrepreneurs. In addition, team entrepreneurs are more often found to survive in the restart compared to solo entrepreneurs (Nielsen and Sarasvathy 2016). New empirical research could complement and build on this research by looking at the post-exit performance of team entrepreneurs who enter the labor market after success or failure.

Startup Motivation and Post-Exit Performance

The final example illustrates how start-up motivations could have an impact on exit type and environment. Start-up motivations may be categorized into the two broad categories, intrinsic and extrinsic motivation, following the

previously mentioned work of sociologist Arne Kalleberg (1977). Intrinsically motivated entrepreneurs build their new venture mainly because the product or service that they provide and/or the work tasks are interesting, allowing the entrepreneur to develop skills and abilities and/or creating a feeling of making a difference in society. That is, the nature of the good(s) provided and work tasks are essential for the start-up decision. In contrast, extrinsically motivated entrepreneurs build their ventures mainly because of the financial dimension (e.g., high expected earnings) or the convenience dimension (e.g., flexible working hours). Kalleberg (1977) also includes the co-worker and career dimension under extrinsic work values and characteristics, but they are less common in entrepreneurship studies, although the effects of the entrepreneurial experience on the future career path is a significant part of the discussion in the present chapter as well as the exit literature (Luzzi and Sasson 2016). The relationship between motivation and exit in entrepreneurship also plays a role in the development of effectual entrepreneurial expertise (Sarasvathy 2008). For example, as Read and Sarasvathy (2005) discuss, expertise development requires the motivation to repeat and practice tasks involved in the domain. And effectual entrepreneurs start with a variety of different motivations based on who they are, what they know, and whom they know (the bird-in-hand principle of effectuation). This is in contrast to the causal approach, wherein the entrepreneur begins with market research and analyses leading to the definition of a specific opportunity, the means for the building of which may not be readily available to the entrepreneur. The causal entrepreneur, therefore, has to find the motivation to pursue and persuade the owners of those means that are required to achieve the predetermined goal. It is easy to imagine how causal and effectual entrepreneurs' differences in motivations may lead to different exit decisions down the road. But there is, however, little empirical work examining these relationships. More generally, entrepreneurs who are mainly intrinsically motivated (e.g., entrepreneurs who want to make a living out of their hobby) found ventures and supply goods that are aligned with their identity and values, while entrepreneurs who mainly care most about the extrinsic factors such as the financial and/or convenience aspect may choose to follow a causal path. What are the potential mechanisms through which start-up motivation has an influence on exit type and performance? On the one hand, if hobby entrepreneurs start out smaller (i.e., still have another job to fall back on) but, nevertheless, are more emotionally attached to the business since it is their hobby, they are better at adapting to an uncertain environment and willing to deal with the problems that may arise along the way. On the other hand, however, since the venture is not their main source of income, and they thus care less about the financial

side of it, they may not make financially sound decisions. Hence, even though they are less likely to go bankrupt, given the small initial investments, they are more likely to stay in a poor-performing venture (measured by the opportunity cost of the individual as well as society) and less likely to part with a high-performing venture through sale because of the emotional attachment to the venture. Furthermore, this emotional attachment could result in a period of grief in the case of involuntarily exiting a poor-performing firm. Exploring these mechanisms further in empirical research could present the first results concerning the consequences of start-up motivation on post-exit performance.

Conclusion

Several empirical studies utilize new venture survival (one, three, or five years) as a standard measure of entrepreneurial success. Hence, the main assumption is that exit in the first critical years, in which half of all new ventures close down, can be interpreted as failure. This chapter challenges this view resulting in three main contributions to the literature. First, examples where exit could be characterized as a success and survival as a failure are introduced based on a new taxonomy of exit. Second, examples of situations when failure (or success) on an individual level could represent the diametrically opposite on the society level are discussed. Third, a dynamic framework to assess when exit is a success or failure is presented by emphasizing the interaction of the person (i.e., motivation, cognition, human, and social capital) and the entrepreneurial experience (i.e., the type of venture, performance, and exit type) for the post-exit outcome assessed on an individual or societal level. Fourth, and finally, four examples based on the dynamic framework are used to push existing empirical research forward.

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Part IV

Macro Level



12

National System Perspective on Entrepreneurship

Jesper Lindgaard Christensen

Introduction

It has been claimed that the literature on National Systems of Entrepreneurship (NSE) is a developing, important strand of entrepreneurship literature with great potential (Acs et al. 2014, 2016). In light of this, it is of vital importance that this stream of entrepreneurship research is on the right track. With the point of departure in the original conceptualization of the NSE framework (Chang and Kozul-Wright 1994) and the innovation systems literature, this chapter takes stock of system perspectives on entrepreneurship including the recent revitalization of the concept (Acs et al. 2014, 2015; Bowen and De Clercq 2008; Acs et al. 2016). In doing so, it also incorporates related fields such as ‘ecosystem’ approaches to entrepreneurship (OECD 2014; Malecki 2011; Stam 2015) and institutional theory applications (Bruton et al. 2010; Busenitz et al. 2000; Bowen and De Clercq 2008). Based on literature studies, the chapter contributes views toward the interpretation of system perspectives on entrepreneurship, and, in particular, *whether the NSE literature is developing in a fruitful manner, and, if not, what could be alternative avenues for this research.*

The NSE literature has made a constructive effort to establish metrics that potentially can bring research forward toward a holistic understanding of the entrepreneurship process. However, in this chapter, two deficiencies in the ‘new

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version' of NSE are emphasized, and it is argued that major adjustments are needed in the areas of where the research is going as well as in its point of departure. It is found that the NSE research, in its current version, has made important progress but builds upon an un-nuanced interpretation of the innovation system literature. The innovation system concept can be understood in a broad or narrow sense (Lundvall 1992). The national innovation system (NIS) approach has strong links to institutional theory; however, the recent NSE literature puts relatively little weight on institutional explanations of entrepreneurship processes. This causes a micro-level, individualistic focus and highlights output metrics in the operationalization of the 'new NSE' concept. Institutional contexts are purely 'framework measures' in this approach. The 'new' NSE is not only far from the original conceptualization but also points toward less holistic explanations, contrary to its explicitly formulated intentions.

There is still a need to develop the operationalization of the theoretical base for a better assessment of the relevant metrics for entrepreneurship measurement. It is proposed in this chapter that the functionalist approach to innovation system analyses (Bergek et al. 2008, 2010) may provide a more appropriate bridge between the theoretical foundation and the relevant empirics. It is also proposed that more attention should be paid to the implications for empirical analyses. This is due to the fact that entrepreneurship is a process and that solely focusing on the output metrics of entrepreneurship render analyses that cannot capture the full picture.

As a start, section "System Perspectives on Innovation: The Core and Emphasis on Interaction and Institutions" provides a brief account of the innovation system literature to show what the new NSE literature is inspired from. The innovation system literature incorporates different types of actors, system boundaries, and institutions (formal and informal) into the analysis of innovation and focuses on the links between the agents in the system. In section "The Evolution of Literature on National Systems of Entrepreneurship", the NSE literature is explained, both in its original form and in combination with the 'new' NSE literature. It is then in section "The Individual and Other Carriers of Entrepreneurial Processes" explained that large parts of the entrepreneurship literature question having a strong focus on the individual entrepreneur as the carrier of entrepreneurial processes. This was strongly emphasized both in earlier entrepreneurship literature that debated the relevance of identifying entrepreneurial traits (Gartner 1988) and in related literature on intrapreneurship and entrepreneurial teams. The fifth section reflects upon explanations to the marked divide between entrepreneurship and innovation studies despite their apparent overlap (Landström et al. 2015) and proposes a possible bridge and a suggestion for an adjusted research

agenda, which is more in line with the SI-tradition. The implications from the analyses in the chapter include not only renewed theoretical understanding but also implications for entrepreneurship measurement, teaching, and policy. These implications are unfolded in section “[Implications for Measurement, Teaching and Policy](#)” before a final, concluding section.

System Perspectives on Innovation: The Core and Emphasis on Interaction and Institutions

The innovation system literature (Lundvall 1992; Nelson 1993; Niosi et al. 1993; Edquist 1997; Cooke 2001) incorporates different types of actors and institutions (formal and informal) into the analysis of innovation and focuses on the links between the agents in the system. Innovation, which is often defined in terms of new products, processes, or organization, lies at the center of the analysis; and, the primary carrier of innovation is the firm. A branch of this literature talks about ‘technological innovation systems’. In this literature (Carlsson and Stankiewicz 1995; Hekkert et al. 2007), the focus is more on the single technologies and how the technologies evolve over time. It is shaped by an interaction between knowledge-generating and knowledge-dispersion institutions. Other parts of the innovation system research have perspectives based upon geographical scope (Braczyk et al. 1998; Cooke 2001) or they are focused on a sector (Malerba 2002; Malerba and Breschi 1997). Controversies within the literature, and criticism of it, center around the issue that the literature has been overly descriptive and too focused on how innovations appear within a system without adequate explanations of the underlying dynamics. Recent literature develops a stronger focus on system transformation, which takes the aggregation level of the analysis a step higher (e.g. Geels 2004) and incorporates a more detailed analysis of the dynamics of specific technological evolutions. Other related criticism points toward weak treatment of recent new innovation models like open innovation, business model innovation, service innovation, social innovation, and new industrial dynamics (Smart Production, etc.) (Weber and Truffer 2017). It could, though, be argued that in some cases the criticism rests on a misinterpretation of the family of innovation system approaches and a lack of recognition that they have different system boundaries as points of departure (ibid.).

Through three decades of research and policymaking in the national innovation system tradition,¹ it is clear that differences within the broad family of innovation system approaches concern not only the perspectives regarding geographical boundaries, technologies, or sectors but, indeed, also differences

in the emphasis and interpretation of institutions (Edquist 1997). What has become known as the US-based innovation system approach has more emphasis on formal institutions together with the science and technology system, whereas, the 'Aalborg-model' of innovation systems (Lundvall 1999, 2007) is more distant from the triple helix models and more in line with institutional theory.²

This literature incorporates the impact of the national or regional context on innovation activities, and innovation is considered the result of a collaborative effort. Technological innovation takes place in an interactive learning process between various actors at all levels of the economy (Lundvall 1992), and this is increasingly the case (Contractor and Lorange 2002). Moreover, multiple sources of information and pluralistic patterns of collaboration seem to be the rule rather than the exception. The data from the Community Innovation Survey (CIS) have been used to demonstrate that firms often find their sources of inspiration for innovation from other organizations and that they find these sources of inspiration from a multitude rather than just a single external partner (Smith 2001; Tether 2002). Likewise, work on innovation systems done at the Organisation for Economic Co-operation and Development (OECD) (1999), revealed that there is, in fact, a considerable variation between national innovation systems (NIS) and industries in terms of the extent to which firms interact with different collaboration partners and also in terms of whether collaboration is pursued with domestic or international partners. Precisely these interactions constitute a large part of what is meant by 'systemic' innovation. The innovation process depends on information and links in the system, and policies following this approach should accordingly focus on coordination failures and misalignments in the system, rather than on market failures. In turn, such links are heavily influenced by the level of trust between the parties and how the norms for collaboration constitute, in brief, institutions in society (note that 'institutions' is most often understood in the literature as informal institutions such as trust, norms, and so on, as opposed to organizations) (Edquist and Johnson 1997). Therefore, the approach is deeply rooted in the belief that innovation is an interactive, institutionally embedded process whereby agents and organizations communicate, cooperate, and establish long-term relationships. Regardless of the selected analytical level, interaction between different types of agents is much emphasized and deeply rooted in the innovation system approach. However, the entrepreneur and entrepreneurial processes have been remarkably absent in systems of innovation analyses.

The Evolution of Literature on National Systems of Entrepreneurship

The Original Starting Point

When Chang and Kozul-Wright, in 1994, introduced the concept of NSE (1994), their purpose was to propose NSE as a framework for understanding and analyzing the interlinked roles of entrepreneurship and the institutional environment in which such processes take place. Hence, the original conceptualization of NSE in the Chang and Kozul-Wright article (1994) was referring to “institutional arrangements supporting continuous innovation through a network of public and private institutional linkages that encourage risk-taking, learning, imitating and experimenting and can manage the destructive components of entrepreneurship” (864–865). The authors claim that incorporating entrepreneurship in the analysis allows them to move beyond the traditional state-versus-market debate and, instead, devote more focus on institutional diversity and transformation of economic routines.

As an illustration, they do a cross-country comparison (South Korea and Sweden) with respect to explaining the economic evolution of these two countries (and, more generally, to explain the role of entrepreneurship, including the entrepreneurial state, in economic development). They approached this by going beyond a simple comparison of start-up rates and other limited, specific indicators for entrepreneurship activities centered on the actions of individuals. On the contrary, they took their point of departure in the aggregate, national-level factors that shape economic evolution on a micro-level of aggregation.

Another important feature of their contribution is that their perception of entrepreneurship is not narrowly confined to the actions of individuals pursuing the start-up of new, independent ventures. Beyond doubt, the majority of entrepreneurial processes in any society take place within already established firms and organizations, private and public. Likewise, Chang and Kozul-Wright include firms as important carriers of entrepreneurial processes. But, additionally, they point out that the state may be an important player, not just by providing policy frameworks conducive for entrepreneurship but, indeed, also by actively engaging in providing directions for these processes, much in line with what has recently been proposed by Mazzucato (2013, 2016). In section “[Entrepreneurship and Innovation System Studies: Two Distinct Fields of Study and a Possible Bridge](#)”, the approach of Mazzucato is re-addressed in its relation to the entrepreneurship aspects and policy implications hereof.

The Chang and Kozul-Wright article (1994) was mentioned above as a primer for later development of NSE approaches to entrepreneurship. In fact, these authors also were very conscious about the role of institutions in establishing an adequate flow of knowledge and capabilities between economic units and in reducing uncertainty in society. They emphasized that such institutions would, in some cases, have a formal character such as property rights, government contracts, and technical information (their examples, p. 863), but, in other cases, institutions may be more tacit and open-ended. The latter type of institutions are often “established through experience and embodied in a diversity of linkages and legacies which make up an industrial and technological heritage, skills profile and geographical distribution of productive assets” (863). Accepting this point of departure for understanding entrepreneurship implies the importance of learning, social capabilities, and traditions for voice-exit (Hirschman 1970), loyalty, and trust. The essence of NSE, in the minds of Chang and Kozul-Wright (1994), is based on the totality of institutional arrangements, formal and informal, that support continuous innovation by way of private and public institutional linkages, especially those that can balance the encouragement of learning, imitation, and experimentation while at the same time manage side effects from creative construction.

A ‘New’ Version of NSE

The ‘new’ version of NSE is first and foremost associated with recent work by Zoltan Acs and colleagues (Acs et al. 2014, 2015, 2016). Their point of departure is from the angle that entrepreneurship studies have mainly focused on the individual, while innovation studies have focused on institutions and the context in which innovation processes unfold, but overlook individual agency. They claim that the entrepreneurship literature has broadly ignored the institutional and societal context, implying that the literature has failed to incorporate the impact the context has on those who start new ventures, what type of venture is started, what strategies firms pursue, and what comes out of these processes (Acs et al. 2016). This is a relevant critique and point of departure for a new research agenda.

The empirical studies using the NSE approach are, naturally, due to the only recent revitalization of the literature, limited in number, and some (Acs et al. 2014) are primarily focused on establishing adequate data sources and indices such as the Global Entrepreneurship and Development Indices (GEDI) (Acs et al. 2013, 2014; Lafuente et al. 2015). Using a national level of aggregation, the Global Entrepreneurship Monitor (GEM) data has been the primary

foundation for these discussions. At the same time, the authors believe that the “resource allocation system (is) driven by individual-level opportunity pursuit through the creation of new ventures” (Acs et al. 2016, 1). Although it is recognized that entrepreneurship research has mistakenly ignored the impact of the context, their own approach still emphasizes individual action as the heart of economic evolution. It is understood that a mere count of the number of firms, start-ups in an economy, or opportunities in an economy does not demonstrate much concerning the functioning of the entrepreneurship system. That which constitutes the entrepreneurial system is comprised, rather, of how entrepreneurs obtain access to resources and transform those resources into productive use and the pursuit of opportunities (Acs et al. 2014). But, ultimately, it is the variables of individual choice that drive the allocation processes.³

By establishing a system for measuring entrepreneurship at the national level, Acs et al. see a bridge between the two types of literature. Essentially, the GEDI system is meant to measure the entrepreneurship activities at the national level, but it is also claimed that this measurement reflects the institutional context in which entrepreneurship unfolds. Based on GEM data and comparable data sources such as World Economic Forum, the authors find that entrepreneurship is reflected in the broad categories of output measures, attitude measures, and framework measures (Acs et al. 2014). They propose that composite indices of 15 variables provide a basis for cross-country comparisons. These variables are opportunity perception, start-up skills, risk acceptance, networking, cultural support, opportunity start-up, gender, technology sector, quality of human resources, competition, product innovation, process innovation, high growth, internationalization, and risk capital. In later work (Acs et al. 2017a), the term ‘National Entrepreneurial Ecosystems’ is used essentially as an extension of earlier NSE work, while retaining the same meaning. The authors argue that National Entrepreneurial Ecosystems impacts how efficiently production factors and technologies are used, which in turn has a positive impact on growth in less-developed countries (interestingly, not in advanced countries, which is interpreted as an indicator of the variant impact on growth according to stages in development lifecycles). In summary, the NSE literature has made important progress in pointing to the need for and constructing variables at different levels of aggregation and at different stages of the entrepreneurial processes. However, as explained in this chapter, the reference to innovation system thinking, the treatment of institutions, and the analysis of relevant actors in the processes are rather narrow.

Entrepreneurial Ecosystems and Other Related Literature

As indicated earlier, a related literature talks about the ‘Entrepreneurial Ecosystem’ (Stam 2015; OECD 2014). As in the NSE literature, the individual entrepreneur is at the core of this approach, yet it emphasizes that the societal context in which entrepreneurs operate is decisive, especially for high-growth-oriented entrepreneurs (Acs et al. 2017a). The policy implications indicate providing a conducive environment for high-growth entrepreneurial action. It is important to take a holistic approach, meaning that there should be the incorporation of not only the entrepreneurs but also their resource providers and the networks that entrepreneurs leverage. Intervention should, though, be based upon more elaborate data than we have today in order to identify the strengths and weaknesses of systems (OECD 2014). This literature has elements from the literature on regional innovation systems, cluster studies, and literature on learning regions, as well as strategy literature (Acs et al. 2017a), but it is more explicit about the role of the entrepreneur.⁴

Because the literature, according to some authors, has been overly preoccupied with analyzing specific regions (Borrissenko and Boschma 2017), it is proposed by Acs et al. (2017b) to apply the somewhat similar concept of the ‘National Entrepreneurial Ecosystem’ on a national level of aggregation. They operationalize this concept as “entrepreneurial attitudes, entrepreneurial abilities, and entrepreneurial aspirations by individuals, which drives the allocation of resources through the creation and operation of new ventures” (24). They maintain that interdependencies between the ‘pillars’ that describe relevant framework conditions for entrepreneurship make up a system where any weakness in one pillar may constitute a bottleneck in the system. Criticism of the entrepreneurial ecosystem literature (Borrissenko and Boschma 2017; Brown and Mason 2017) has pointed to where the literature describes a static system in which there is little explanation of cause and effect and to where it is unclear how (and which) institutions impact the performance and functioning of entrepreneurial ecosystems. Moreover, insights from network theory could, in the eyes of Borrissenko and Boschma (2017), provide an inspiration to developing an explanation of how the elements of the system are connected. This perspective is backed up by Brown and Mason (2017) who point out that, in the current literature, the complexity of ecosystems is not adequately recognized and that policy interventions based on entrepreneurial ecosystem thinking need to be genuinely systemic.

As discussed in the following section, the inspiration from innovation systems thinking may indeed be different depending on how this literature is read and used. The innovation system studies, but, indeed, also the above-

mentioned sociology-inspired studies, form a point of departure for a discussion on whether the earlier trajectories of entrepreneurship research point in a direction compatible with where the 'new' version of NSE is leading us.

The Individual and Other Carriers of Entrepreneurial Processes

A long research tradition on the personality traits and other characteristics of the individual entrepreneur has, complementarily to recent interest in the composition and behavior of teams, been a part of the explanation of why there is still a strong focus upon the individual in entrepreneurship research. As a response, entrepreneurship researchers have, rhetorically, posed questions such as in the article by Bill Gartner, 'Who is an entrepreneur? is the wrong question' (Gartner 1988), as well as questioning why entrepreneurship is not an evolutionary science (Aldrich and Fiol 1994). Also in this discussion is whether the majority of entrepreneurship processes are initiated in a 'garage start-up' manner, but this is clearly the special case rather than the rule. The entrepreneurial process is interactive, continuously incorporating signals from customers in the market and taking in resources from stakeholders (Saravathy 2008); thereby, it is taking multiple forms, for example, spin-outs, corporate entrepreneurship, and so on. Even going back to the legacy of Schumpeter, the Schumpeter Mark I entrepreneur is often portrayed as an individual who takes independent action; however, there is also the Mark II entrepreneur who works in teams and R&D labs in large firms. The Mark II entrepreneur illustrates the strong interactive character of entrepreneurial processes and dependency on resources and system features.

It could be argued that entrepreneurship studies are intellectually embedded in Schumpeter Mark I, focusing on the individual entrepreneur; meanwhile, innovation studies are more inclined to subscribe to the Mark II model, focusing on firms and R&D institutions. However, both branches of research, and both types of processes (entrepreneurship and innovation), have developed immensely since the formulation of Schumpeter's thoughts. As indicated earlier, the complexities of these processes, and the ways in which actors are involved in them, have changed substantially. Not only do individuals and firms pursue innovation and entrepreneurship, but often multiple actors are involved, including both public and private actors, and often in a partnership. Therefore, where regulation and policy have previously been regarded as obstacles for entrepreneurship, today they are seen rather as carriers of entrepreneurial processes.

Hence, in the debate on ‘the entrepreneurial state’, two major points are made in order to discuss the role of government in entrepreneurship (Mazzucato 2013). First addressed is the argument that, even when the building of large, successful businesses seems to be the result of individual entrepreneurial action, closer scrutiny of the funding and origin of underlying technologies often shows that governments, not private businesses, provided the development of the core technologies used in commercial businesses.⁵ Mazzucato mentions examples such as the funding of Arpanet, prior to the internet, and the core technologies used by Apple Computer (2013). In her second point, Mazzucato argues that entrepreneurial action can be pursued by actors other than private individuals. The concept of the entrepreneurial state relates not only to the fact that the state can fund the development of core technologies but also that the state has the opportunity to provide directions for technological development. This can be pursued by ‘mission-oriented policies’, as exemplified by putting a man on the moon, which involved a wide range of sectors and the engagement of both public and private actors and, furthermore, yielded a wide range of new technological achievements, many of which, in turn, were used in commercial products and processes. Such initiatives provide directions of change by deliberately picking prioritized areas of intervention and investment (Mazzucato 2013). What is important in this connection is that missions are achieved only when the public and private sectors work together on equal terms and roles. Historically, successful cases of providing directionality did not come about in a top-down manner, but rather by way of a decentralized group of public agencies (ibid. 2016). This (and the widespread use of public-private partnerships generally) illustrates that the carrier of entrepreneurial processes is not necessarily an individual who independently spotted opportunities and tried to pursue these opportunities. This is but a small part of entrepreneurship. In reality, important actors range from garage-start-up-type entrepreneurs to public-private consortia doing large-scale, mission-oriented development projects aimed at societal challenges.

The broadening of the range of ‘entrepreneurs’ naturally has a bearing on what the relevant context is for entrepreneurial processes, relative to the earlier discussion. Directionality can be very tangible and explicit, but whether mission-oriented policies will succeed can easily rely on much more implicit factors. As mentioned earlier, the innovation system perspective, especially in the ‘broad’ sense, points to the importance of (informal) institutions and explicitly refers to North and other authors in the tradition of institutional theory. In fact, discussions in the literature on the development trajectories of entrepreneurship theory likewise have involved how institutional theory could enrich entrepreneurship theory (Bruton et al. 2010; Phan 2004; Aldrich and Fiol 1994).

Institutional theory encompasses a broad range of disciplines (sociology, organizational theory, political science, and economics), more specifically, though, the classification by Scott (2007) depicts institutional forces as residing in three pillars: the regulative, normative, and cognitive pillar. The applications of institutional theories to the field of entrepreneurship have been used for only two decades to explain differences across countries in entrepreneurship rates and entrepreneurship behavior, some of which have used the Scott classification. Institutions can be formal or informal. Formal institutions refer to the laws, regulations, contracts, property rights, and so on, whereas informal institutions refer to the norms, values, culture, and attitudes in society, as discussed in the previous section.

Building on this, it is important to note that there is a relationship between the formal and informal institutions as the informal institutions impact how formal institutions function (North 1990; Bruton et al. 2010; Busenitz et al. 2000; Bowen and De Clercq 2008). As also noted by Bruton et al. (2010) “Informal ties and relational governance fill in the ‘institutional voids’ resulting from an inadequate formal institutional infrastructure” (426). The Kirzner entrepreneur⁶ may act in a competitive environment optimizing the use of information to create markets (Kirzner 1973, 1997), but formal and informal institutions form the regulatory framework and norms, respectively, for trade to take place at all. This applies to both national and individual levels of aggregation (Stenholm et al. 2013).

In sum, this section highlighted a key aspect of the general debate on entrepreneurship, one that is particularly relevant in the context of this chapter, namely, who are the carriers of entrepreneurial processes. It was emphasized that, even when individual action is the primary driver of entrepreneurship, it is shaped by institutions. Thus far, the NSE literature is in line with this argument, although the interpretation of ‘institutions’ is debated and the entrepreneurial state arguments illustrate the importance of directionality. It was also argued that carriers of entrepreneurial processes are more than just individuals and firms, which is also argued in the NSI-literature, but not in NSE-literature. In light of this, it seems relevant to reflect upon an apparent divide between general innovation system studies and entrepreneurship studies.

Entrepreneurship and Innovation System Studies: Two Distinct Fields of Study and a Possible Bridge

It was argued earlier that the NSE literature attempts to bridge insights from innovation studies and entrepreneurship research. The literature on national entrepreneurship systems and innovation systems should seemingly make an

easy fusion. The innovation and entrepreneurship concepts are often used together, even interchangeably in some discussions. Similarly, for academic journals and conferences that often have both words in their title (e.g.,: *Journal of Innovation and Entrepreneurship*; *Journal of Entrepreneurship, Management and Innovation*; *The International Journal of Entrepreneurship and Innovation*; *International Journal of Entrepreneurship and Innovation Management*; and *International Journal of Knowledge, Innovation & Entrepreneurship*). Moreover, the work of Joseph Schumpeter (1934) is a key reference point for both entrepreneurship research and innovation studies. Despite the apparent close links between the concepts, research has shown that, in fact, the areas of research are rather distinct (Landström et al. 2015; Gartner 1988). Landström et al. even maintain that the two fields are developing away from each rather than converging.

There may be several reasons why these two research traditions are different, but a key reason is that the unit of analysis has been different. Entrepreneurship research has focused upon the entrepreneur and the (start-up) firm, regardless of the activities of the firm. On the other hand, the activities of the firm, or innovations, have been the center of analysis for innovation studies, though these activities may not necessarily be related to the boundaries of the firm. In addition to the different units of analysis, another reason for the discrepancy is the intellectual heritage regarding, for example, the role of institutions, as explained earlier.

In the current literature on NSE, we see an un-nuanced adoption of the NIS approach with little reflection on whether this is an appropriate framework or not. The NIS literature in the NSE work by Zolton Acs was criticized by associates for ignoring the individual entrepreneur as a key actor, something that is advocated as a guiding method to analyzing system perspectives on NSE. Hence, NIS approaches have been criticized for ignoring agency (Hung and Whittington 2011; Acs et al. 2016). However, within the research of innovation system thinking, there are different approaches which use similar points of departure but have different units of analysis. For example, there are strong differences between the system boundaries deployed in technological innovation systems (TIS), regional innovation systems (RIS), NIS, and sectorial innovation systems (SIS) (Weber and Truffer 2017). Even within NIS thinking there are differences between the uses of the approach.

Recognizing that (see section “[The Individual and Other Carriers of Entrepreneurial Processes](#)”) entrepreneurship is a process carried out by multiple types of actors, it is suggested here that the functionalistic approach to innovation systems might constitute a more expedient reference point for the development of an NSE perspective. The functionalistic approach is associated with work by

Carlsson and Jacobsson (1997) and Bergek et al. (2008, 2010). It explains that gearing innovation systems to effectiveness requires focus on the system weaknesses and the functions that the systems fulfill. Specifically, the weaknesses may be infrastructure, how markets function, interaction problems (lack of connectivity), complementarity problems (lack of complementary competences in the system), institutional problems, and directional problems (search: 'lack of collective priorities') (Bergek et al. 2010). The NSE literature explains that the term 'system' is relevant because the 'pillars', that is, the constituencies of the system, are interdependent, and the system is only as strong as the weakest among these pillars. However, the identification of weak points and, in particular, how to address them, is left unsolved. Whereas the functionalistic approach to innovation systems primarily talks about policymakers as the actors who address the weaknesses with policies on a system level, the weaknesses in the system are also dealt with by the firms and entrepreneurs who are the primary carriers of the change processes. This literature also talks about sectorial and technological systems and how action toward different technological systems requires additional, complementary actions depending on the specificities of the technologies involved. It is, for example, recognized that many of the system weaknesses (lack of coordination, financing, information) could be addressed by system actors since they are closer to the relevant activities. This, however, may constitute a major obstacle that requires policymakers to balance interfering in the market with providing incentives for market actors to behave in a 'system conscious way' (Bergek et al. 2010).

In much the same vein, it should be considered how to apply this approach to a fruitful version of entrepreneurship systems. Entrepreneurship is a process/function and can be envisaged at a system level, as it is highly context (technology) dependent. But the underlying micro-level processes need to be incentivized and facilitated (both for private firms and public sector organizations) for systems to work. Hence, many of the basic elements of the functionalistic approach are applicable to entrepreneurship systems. In addition to laying out the controversies and debates around system perspectives on entrepreneurship, it was emphasized in this chapter that entrepreneurship is a process governed by informal institutions and carried by multiple types of actors. This approach has wider implications as explained in the section below.

Implications for Measurement, Teaching, and Policy

This chapter has primarily focused on the implications for research and where research is possibly going. But, there are a number of other implications of the analyses.

Measurement

Innovation system studies have struggled to come up with adequate indicators for the different types of factors claimed to have influence on the innovation activities in society. The Oslo Manual (OECD/Eurostat 2005), The Working Party of National Experts on Science and Technology Indicators (NESTI), and several other internationally concerted actions have been instrumental in progressing empirical understanding of innovation systems. The majority of studies have, nevertheless, been partial and focused on a narrow aspect of the innovation system despite recognizing the importance of a holistic approach. The question is whether current approaches to enrich the entrepreneurship literature are making the same mistakes, and, if so, what could be a more appropriate way forward? The problem raised here is essentially: with an entrepreneurship system perspective in mind, how should the total system of entrepreneurial activities be measured and described? Related, how should the role of institutions be more adequately captured in our measurement systems? These questions are probably largely unsolvable because our statistical system is geared toward measuring tangible inputs and outputs, whereas processes are difficult to capture with our current statistical instruments.

This is not to say that we should not use and develop entrepreneurship indicators. However, we should be aware of the limitations in using aggregated output indicators only (as was the primary approach in the original Chang and Kozul-Wright (1994) approach—the present chapter does not suggest that their approach was more fruitful than the GEDI/NSE-approach nor that we should go back to only focusing on macro-level indicators. It is only suggesting that it came prior to the ‘new’ NSE approach, hence the asterisks surrounding ‘new’). Accepting that entrepreneurship is a generic, ubiquitous process implies that our attention ought to be also focused on the inputs and intermediate outcomes of the process. Aggregate statistics might reflect the outcome of the underlying processes but do not necessarily measure entrepreneurship, as such.

Entrepreneurship Teaching

With the point of departure in the conceptualization of entrepreneurial processes, as earlier, there are also implications for how we teach entrepreneurship. Throughout academia, there has been a wave of establishing entrepreneurship courses and formulating objectives to offer entrepreneurship teaching to a still larger share of students. It can be debated whether it is time to roll back this wave and stop expanding separate, special entrepreneurship courses.

The entrepreneurship system perspective spurs the question whether these courses should perhaps be replaced and/or complemented with incorporating entrepreneurial elements in all subjects taught at universities? Given a view of entrepreneurial processes as generic, ubiquitous processes, would it be fair to say they are necessary parts of a wide range of skills, hence should not be separated out in specific courses? As it has been formulated by DeCarolis (2016), 'We Are All Entrepreneurs: It's A Mindset, Not a Business Model'.

Policy Implications

The NSE literature and the NIS literature both agree that, rather than market failure, policies should address system failures in order to alleviate system-level deficiencies and bottlenecks (Acs et al. 2016; Lenihan 2011). Innovation system thinking follows the logic that traditional market failure approaches to policy are to be supplemented, and in some cases replaced by policies aimed at alleviating system failures. System failures may be failures in capabilities, institutions, frameworks, or networks (Arnold 2004; Woolthuis et al. 2005). For example, network failures may be inadequate interactions and links between key agents in the innovation system. Thus, they may be inadequate frequencies of linkages, poor quality of linkages, or lock-in problems. The policy approach following from this is to remove obstacles to efficient and effective exchanges of economically useful knowledge for entrepreneurship and innovation.

Even if agreement is established about objectives of more and better links between elements in the innovation system, there is no uniform, best possible setup of a national innovation system in any country (as implicitly presumed in the GEDI framework of the NSE literature). This has led to some frustration among policymakers because quantitative, international comparisons of NIS do not produce strong, clear policy recommendations. Only when supplemented with more careful, holistic studies of the functioning of the national innovation system it is possible to place such quantitative indicators in the right perspective. Hence the question: does systems perspectives on entrepreneurship prescribe less specific benchmark opportunities?

Mazzucato (2013, 2016) adds another perspective on this. In her view, the focus on fixing market failures or system failures as a rationale for policy has led to a biased view of the public sector as only facilitating change, regulation, and the fixing of problems, rather than the role of public policy being the guiding of change, creating markets, and developing general purpose technologies such as the Internet and nanotechnology. Related to this, a skeptical attitude has developed regarding the abilities of the public sector to take the lead in transformation processes through investments and risk-taking. In turn,

this has limited the investments the public sector makes in its internal competences and organizations in fulfilling exactly this task. A question arising from this perspective is if the often-heard debate about whether public expenditures crowding out private investments and whether the relative size of the public and private sector is a mirror of each other are obsolete debates. Does the system perspective on entrepreneurship provide a more nuanced picture of the role of the public sector in entrepreneurship? Moreover, what are complementarities between the operating of public and private sectors?

Conclusions

In this chapter, it is argued that the NSE research, in its current version, explicitly builds upon and is inspired by the NIS literature. However, it builds upon an un-nuanced interpretation of this literature, a literature that entails a range of different innovation systems, with different system boundaries and different emphasis on actors and their relationships (Weber and Truffer 2017). Moreover, the innovation system concept can be understood in a broad or narrow sense regarding the role of institutions (Lundvall 1992). The NSE has adopted the NIS as a point of departure but has not incorporated some of the fundamentals of the innovation system literature. In particular, it is common to the innovation system approaches that they rely heavily on institutional theory (North 1990) to explain how interactions in the system take place. However, the recent NSE literature seems to put relatively little weight on institutional explanations to entrepreneurship processes despite that a piece of literature within this research tradition specifically explains the value of this perspective for entrepreneurship (Bruton et al. 2010). This has produced a micro-level, individualistic focus and, despite incorporating ‘attitude measures’ (Acs et al. 2014, 480), there is a focus on output metrics in the operationalization of the ‘new NSE’ concept. Institutional contexts are described as ‘framework measures’ (ibid.) and there are sparse explanations on the way elements in the system are tied together (Weber and Truffer 2017). Empirical analyses confined to these relatively narrow conceptual perceptions are not only far from the original conceptualization of NSE but may also render less holistic explanations, which is contrary to its explicitly formulated intentions. We should appreciate the efforts done in the NSE literature to develop the operationalization of the theoretical base for better assessing the relevant metrics for entrepreneurship measurement. However, there is still room for further exploration of this. It is asked in this chapter whether the functionalist approach to innovation system analyses (Bergek et al. 2008, 2010) may provide a more appropriate bridge between the theoretical foundation and relevant empirics.

Notes

1. To a large extent, the innovation system concept quickly gained appeal within policy circles because it was developed in an interaction between academia and policymakers, in particular the OECD (Weber and Truffer 2017).
2. Sharif (2006) provides an account of the evolution of the innovation system concept and how it found resonance in policymaking. See Rakas and Hain (2016) for a bibliometric analysis of recent developments in innovation system research traditions and Weber and Truffer (2017) for suggestions to further developments of the approach.
3. A very similar approach was developed by Baker et al. (2005). As the title of their paper indicates ('A Framework for Comparing Entrepreneurship Processes across Nations'), the basic purpose was to present a framework that could be used for comparing entrepreneurship processes across nations, and, in content, their paper is very similar to the work of Acs et al. For example, they point to the consequences of ignoring the context of entrepreneurship processes and of focusing too much on the individual level, and they point to the need to incorporate institutional factors into the framework.
4. A number of studies within, for example, the cluster literature do, though, introduce the entrepreneur as a key driver of the creation and dynamics of clusters (e.g., Feldman et al. 2005; Feldman and Francis 2006; Christensen and Stoerring 2011).
5. It is a related point in this approach that, because the state provides funding for both successes and failures, there is no reason why the state should not have a share of the upside and behave to a larger extent similar to as in a venture capital model. In the current paradigm, the public sector bear risks and pay for failures but do not harvest proceeds from successes.
6. A Kirznerian entrepreneur has the ability and creativity to spot opportunities for, and facilitate, exchange, hence profiting from acting as a mediator for trade.

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13

Business Systems Perspective on Entrepreneurship

Mohammad B. Rana and Matthew M. C. Allen

Introduction

From the outset, research on entrepreneurship has tended to focus on individual entrepreneurs' personality traits, their ties to other individuals and groups, the resources that they were able to deploy, and the opportunities that were present in the economic environment in which they operated. More recently, entrepreneurship research has increasingly used institutional theory in analyses (Levie et al. 2014; Braunerhjelm and Henrekson 2013; Hwang and Powell 2005), often focusing on why and how institutional contexts affect entrepreneurship (Henrekson and Sanandaji 2011), how entrepreneurs manipulate and alter/create institutions, and how institutions influence the legitimacy of entrepreneurship (Hwang and Powell 2005). Such work has also compared how institutional characteristics, including social networks, influence entrepreneurship development in different societies (Aidis et al. 2008).

We adopt a broad definition of 'entrepreneurship', so that it encompasses not just the creation of new business ventures but also the development of new organizational structures and processes that fundamentally alter the organization of work and employees' tasks (Hwang and Powell 2005). In contrast

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to much of the entrepreneurship literature that focuses on the capabilities of either individuals or organizations to create new businesses or to change existing work patterns (Hwang and Powell 2005), we examine how institutions and entrepreneurs, as actors, are mutually constituted (Jackson 2010). This enables us to highlight not only how institutions shape the identities of entrepreneurs but also to complement existing work that seeks to explain how patterns of entrepreneurship, such as start-up rates, likelihood of success, and sectoral concentrations vary across countries and regions within countries. We seek to provide new insights and a framework to understand the process of entrepreneurship, entrepreneurial capability development, and entrepreneurial cognition in national as well as comparative institutional contexts (Rana and Nipa 2018).

We focus on business systems theory (BST), which draws on institutionalism and organizational theory, to argue that the interactions between humans, firms, and the institutional characteristics of a certain context shape human capabilities, rationales, firm strategies, and competencies (Rana 2014, 2015). More specifically, BST can help to provide new answers to some of the common questions in entrepreneurship studies. For instance, it can help to explain why and how some institutional contexts support entrepreneurs and their efforts to create new ventures, while other institutional settings do not; why and how entrepreneurs' decision-making processes and risk-taking characteristics differ between two countries or even within one country; why the growth of a particular type of venture is fast in one context and slow or negligible in another; how entrepreneurs' capabilities vary due to differences in culture, history, ethnic background, and formal institutional conditions.

We organize our contribution in four ways: *first*, our chapter proposes a new perspective, that is, BST, in entrepreneurship studies, which provides a comprehensive analytical framework and discusses the 'national business systems' concept. *Second*, we discuss various ways in which this theoretical perspective could be used in entrepreneurship research and hope to inspire future research to use BST to understand entrepreneurship processes and entrepreneurial dynamics from a comprehensive perspective. *Third*, the comparative nature of BST can help to underpin research on comparative entrepreneurship and international entrepreneurship, which are on the increase, to assess why a particular entrepreneurial phenomenon is more likely to become predominant in certain institutional contexts compared to other ones. *Fourth*, we put forward a future research agenda for the study of entrepreneurship that could draw explicitly on BST.

Overview of the National Business System Perspective

Since BST draws on institutional theory, it shares many of the core concepts and views with institutionalism. The core dimensions that BST presents are: first, institutional conditions (i.e., regulations, norms, cultural-cognitive features) shape firm strategies, structures, venture creation processes, and entrepreneurial dynamics (Morgan and Hauptmeier 2014; Whitley 1992a, b, 1999b). Second, firms or groups of firms through their strategies and power also shape institutional features (Allen 2013; Kristensen and Morgan 2007). Third, firms and entrepreneurs are embedded in institutional systems; the most important ones for any particular firm may be the national, regional, global, provincial, or sectoral levels (Whitley 2005; Wood et al. 2014; Lange et al. 2015). Fourth, there is a continuous interaction between firms, entrepreneurs (particularly entrepreneurs of new ventures or entrepreneurial companies), and institutional features (Divito 2012; Becker-Ritterspach et al. 2017). During the process of interactions, firms and/or entrepreneurs may develop strategies to respond to institutional conditions and thus change organizational structures to tap into institutional advantages or (seek to) overcome the challenges that the current institutional setting poses in order to survive, grow, and become competitive (Allen et al. 2017; Allen 2013; Lange 2009; Casper 2000). However, entrepreneurs' or firms' competencies to develop such an institutional strategy will depend on the firm's/entrepreneur's individual resources and the embeddedness with and nature of the institutional system (Casper 2009; Casper and Storz 2017). Thus, it is important to analyze the causes of those changes to the firm's structure and their effects on the firm's operation, entrepreneurial capability, and entrepreneurship process. In addition, it is important to assess how that process of change evolves or coevolves with the institutional system (Wood and Lane 2012; Lane and Wood 2009) and how firms/entrepreneurs legitimize themselves in that institutional system through their strategies and agencies (Morgan 2010).

Specific Issues of Interest from the Business System Perspective

BST shows how interactions between firms and institutions may over time give rise to a particular system of doing business in a society, that is, a set of systemic logics or rationales that help to constitute firm behavior. Thus, any

particular business system is associated with a system of institutions that, as they interact with firms, will condition that nature of firms, the relationships/networks between firms and between firms and institutions, and the dynamics of management in organizations; for instance, the ownership and governance of firms will condition all of the characteristics of firms (Whitley 1992a, b, 1999b; Redding 2005). Similarly, the availability of funding and funders' priorities, which vary geographically, will shape the nature of entrepreneurs. Therefore, BST helps to explain the organizational structure, entrepreneurial logics, motivation, and entrepreneurial processes (in the case of entrepreneurial ventures) as well as management strategy based on the logics of business systems and institutional conditions in which both entrepreneurship and entrepreneurial venture are embedded.

The logical and causal explanations that the business system perspective presents take into account both the endogenous and exogenous factors of the organization (Whitley 2007), and thus BST analysis looks into phenomena, processes, and change from a broader and deeper perspective, seeing them constituent and constituting elements of institutional systems. The major benefit of using BST analysis in entrepreneurship and management studies is that it provides a holistic and systematic framework to conduct comparative research across countries (Allen 2013; Witt and Redding 2013; Witt and Jackson 2016) as well as across regions within countries (Allen and Whitley 2012). BST argues that the nature and cohesiveness of institutions not only shape the characteristics of business systems (i.e., the characteristics of firms and the coordination of economic activities between and within firms and other economic actors) but also the capability of organizations and entrepreneurial initiatives, leading to variations in entrepreneurship styles and outcomes in different societies (Whitley 2007; Malik 2017; Whitley 2010a).

BST primarily concentrates on how firms are shaped by national-level institutions, as it is at this level that institutions tend to be strongest (Allen and Whitley 2012; Malik 2017; Rana and Morgan 2015). However, it recognizes that there can be regional differences within a nation under certain circumstances related to historical developments, cultural differences, and administrative developments. In terms of provincial governance, ethnic divisions, and so on, BST is not, therefore, methodologically 'nationalist'; the key issue here is where the powerful institutions are reproduced and, if that is at the regional level or sectoral level, then research should analyze the links between entrepreneurship and institutions at these levels (Allen and Whitley 2012; Lange et al. 2015; Malik 2018; Whitley 2005; Rana 2015; Rana and Morgan 2015).

There are three main components that comprise a business system: the nature of firms (i.e., the nature of ownership and governance), their relationships/networks with other firms and organizations, and the internal dynamics of management that firms tend to follow. There are two types of institutions that largely shape business system components: (1) background cultural-cognitive institutions and (2) the formal proximate institutions (Whitley 1992a, b) (see Table 13.1). In the following sections, we discuss the link between business system characteristics and entrepreneurship studies in order to show how institutional characteristics can help to explain the creation, growth/decline, and management of entrepreneurial firms.

The Business System Perspective and Entrepreneurship

This section contains two subsections. The first shows how business system characteristics can help to explain entrepreneurship. The second discusses the interaction between institutions and entrepreneurship processes, including the management of entrepreneurial ventures.

Business System Characteristics and Entrepreneurship

Table 13.1 presents some of the key components of BST, including the characteristics and dimensions that constitute a business system, so researchers can investigate those dimensions using the institutionalism and business systems perspective. In ‘fragmented’ business systems, where trust between either individuals or collective actors is not ensured by the system of formal institutions (such as state law, appropriate enforcement mechanisms, and intermediary institutions) (Whitley 1999b), informal social institutions can underpin trust between firms and between individuals (Bachmann and Inkpen 2011; Whitley 1999b; Allen 2014). Thus, informal ties, social capital, and kinship-based trust become predominant in fragmented business systems (e.g., China) (Witt and Redding 2013; Allen 2014). This condition stimulates family-based or social network-based enterprises to emerge and grow. These conditions are likely to favor forms of entrepreneurship that, in part, mimic successful examples at home or abroad, resulting in (1) large organizations, whose owners are connected to those with resources, such as the state, introducing ‘copycat’ entrepreneurial products and (2) relatively low levels of entrepreneurship among those with few financial resources and/or no strong family connections

Table 13.1 Business system key characteristics

Key components	Characteristics and dimensions	Variations in institutions
Nature of firms or ventures (ownership and governance)	<p>How does the ownership of large firms (family, state, nongovernmental organization (NGO), non-family-based ownership) influence market competition and present challenges and opportunities for new ventures?</p> <p>How do institutions shape the entrepreneurial activities?</p> <p>What factors motivate entrepreneurs in different industries and how does the nature of growth in that industry vary to that of other industries?</p> <p>How and why do the entrepreneurial dynamics and capabilities of certain types of firm within industry, sector, and countries differ?</p> <p>Do particular business systems support particular types of entrepreneurship but not others?</p> <p>How do institutions, particularly state policy and incentives, civil society organizations, family and social capital, and cultural phenomena, influence entrepreneurial activities and venture creation?</p> <p>How and why do the characteristics of entrepreneurs and new ventures vary in different institutional contexts?</p> <p>How are risks managed through mutual dependence with business partners, employees, venture capitalists, business angels, and so on?</p>	<p>Studies can look into how various types of cultural-cognitive institution (i.e., trust, authority hierarchy, social capital, material, and ideational logics) as well as proximate institutions (i.e., the role of state, financial, labor, and education institutions) influence entrepreneurship</p>
Market organization and network	<p>How and why does the nature of interfirm relationships and networks (transaction-based, cooperative, competitive, mutual-value/dependence-based, long-term/short-term) vary between firms within the same industry or between industries?</p> <p>How is the nature and significance of intermediaries in the coordination of market transactions and why?</p> <p>How does trust (interpersonal trust, institutional trust, kinship-based trust) and personal ties shape the nature of coordination and collaboration activities of firms in different business systems?</p>	<p>How do cultural cognitive and formal proximate institutions shape the organization of work and network characteristics in different markets</p>

(continued)

Table 13.1 (continued)

Key components	Characteristics and dimensions	Variations in institutions
Management dynamics	<p>How much discretion do managers have from owners/entrepreneurs?</p> <p>What is the nature of decision-making and control in organizations (i.e., centralized, decentralized)?</p> <p>How and why do managers coordinate and control economic activities through impersonal/formal procedures?</p> <p>What is nature of distance and superiority in management hierarchies and between managers and owners?</p> <p>What is the nature of employer-employee commitment and organization-based employment systems?</p> <p>How do the nature of operational control and the level of work-group autonomy vary between different institutional settings?</p>	<p>How do cultural-cognitive institutions and formal institutions shape management dynamics?</p>

Source: Derived from Whitley (1992b, 2010b), Redding (2005)

or social capital (Xiao et al. 2013; Wood and Frynas 2006). This pattern is common in many emerging economies in Asia, Africa, and Latin America.

In some societies, labor and the skill-development institutions, such as universities and vocational training organizations are strong and of high quality; moreover, financial systems effectively channel funds to entrepreneurs. State policies and the national system of innovation support these characteristics. In such business systems, skill-based and innovative venture creation becomes relatively common, reducing the risks associated with a new venture because formal institutions can provide financial and training support to would-be entrepreneurs who may be unemployed (see Vignette 13.1 for a discussion).

The relationships between firms within the same and different industries depend on the market structure and the nature of societal institutions. In some societies, firms tend to develop relationships with other firms in which price and cost become the prime concerns, while, in other business systems, mutual dependency derives from the motivation of higher value creation, primarily in product and process specialization (Whitley 1999b). It is important to note that, in these relationships, the degree of commitment and knowledge-sharing varies considerably, reflecting key business-system characteristics. The determinants of mutual dependency, shared value creation, market exploitation and/or higher value-creation, and the degree of commitment in relationships derive from the nature of institutions in which firms develop relationships. In Denmark, for example,

Vignette 13.1 Business Systems Supporting Entrepreneurship

'Flexicurity' in Denmark provides flexibility in the Danish labor market in which new ventures/firms can hire and fire employees relatively easily depending on the success and growth of the venture, while established entrepreneurs can go for risky growth business wherein compatible skills can be hired when needed and can be fired easily due to the 'flexicurity' policy of the state (Croucher et al. 2012; Kristensen 2016). This policy provides flexibility to firms to be dynamic, adaptive, and grow in response to market dynamics. Fired employees receive financial support and high-quality training during their unemployment (i.e., 'flexicurity'), and this institutional condition stimulates new venture creation, growth, and sustainability of firms in a particular way. Unemployed workers must develop their skills by attending universities or training institutions while the state continues to provide financial assistance to the employees during training/education. After the training, skilled employees can contribute to firms or establish their own companies, helping to explain why entrepreneurship in Denmark follows a different path-dependency compared to that of other European countries.

In some other societies, for example, US and UK, entrepreneurs during the venture-creation process can access venture capital or receive finance from business angels. In these countries, cutting-edge research and development that is taking place at universities and science parks (e.g., Silicon Valley in the US and Cambridge in the UK) underpin large-scale and innovative entrepreneurial venture creation (Keller and Block 2013).

Alternatively, in some other societies, for example, China and Korea, the role of the state and state participation in the venture-creation process is predominant (Luo et al. 2010). Therefore, state-owned or state-supported large and medium-sized enterprises are typically dominant in this type of business system. These ventures typically grow rapidly as a result of state support in the form of finance, policies, and regulations.

The example of Estonia demonstrates how international entrepreneurship is stimulated by a state policy that encourages IT-based industries to flourish. Under Estonia's 'e-residency' scheme, entrepreneurs neither have to come from Estonia nor do they need to live there; rather, by getting 'e-residency' through online registration, information and communications technology (ICT) professionals from around the world can set up information technology (IT) ventures in Estonia, registering that venture under Estonian regulations and doing e-business, and thereby being connected to Estonian institutional networks, including its financial system. Variations in institutional features change the nature and characteristics of the business system and BST provides an explanatory dimension to analyze entrepreneurs' 'rationales' and logics (Witt and Redding 2009). This framework can, as a result, help to explain entrepreneurial motivation, risk-taking, growth strategies, long-term versus short-term orientations, the delegation of autonomy versus direct control, externalization versus internalization mechanism, innovation versus imitation, and corporate strategic choices.

In Bangladesh over 80 percent of members of parliament are owners of large and/or medium-sized companies, leading to a nebulous distinction between markets and the state that can help to explain the growth of certain industries

(continued)

Vignette 13.1 (continued)

in the country. As a result, the NGO sector plays an important role in Bangladesh providing small-scale finance to working-class people for micro-entrepreneurship. This helps to ameliorate, to some extent, the institutional void in the credit market for many individuals and entrepreneurs who lack connections and financial resources of their own. NGOs have helped to increase the number of micro-enterprises. By doing so, NGOs have become part of the institutional system for some entrepreneurs and institutional entrepreneurs (Rana and Sørensen 2016), helping to create some large companies and stimulate the growth of some selected sectors, such as credit, apparel, dairy, food, agriculture, education, renewable energy, and telecom and IT. Therefore, such institutional conditions encourage social entrepreneurs in certain sectors.

firms tend to collaborate based on mutual value-creation, leading to long-term commitments and helping small and medium-sized enterprises (SMEs) to share knowledge and earn synergic competitive advantage. These factors help to promote firm growth and sustainability (Kristensen 2016).

Apart from ownership and relationships, BST also helps to explain how entrepreneurs manage their ventures and how that, in turn, can lead to certain growth patterns. Table 13.1 highlights some key issues on how governance, management style, and the nature of networks and relationships both within and between firms influence the conditions under which entrepreneurial firms seek to grow. For example, the delegation of autonomy and the decentralization of power and decision-making can help firms grow in unrelated sectors and internationalize more quickly than those that centralize the control mechanism and decision-making. However, entrepreneurs' identities and how they 'make sense' of the role of managers will shape how they delegate power to salaried managers, decentralize decision-making, create policies for operational control, and establish work-group autonomy. Entrepreneurs' identities and sense-making will depend on the cultural cognitive institutions of the society entrepreneurs are from and that their ventures operate in (Whitley 1999a; Rana and Nipa 2018). Institutional dimensions can help to explain business system and entrepreneurial characteristics in a logical way. Now, we turn our focus to these institutional features to understand them more deeply.

Institutional Characteristics Affecting Business System Characteristics and Entrepreneurship

The entrepreneurship literature acknowledges the role of institutions in shaping entrepreneurs' opportunities and challenges in different societies (Bruton and Ahlstrom 2003; Hwang and Powell 2005). This literature, on the whole,

argues that institutions limit or encourage entrepreneurial opportunities and, as a result, determine the rate and size of new venture creation (Aldrich and Fiol 1994; Hwang and Powell 2005). However, entrepreneurship studies tend to focus on selective institutional characteristics that affect entrepreneurs' external environment, such as favorable market incentives, the availability of capital, and state support or impediments, including taxes and regulations. By contrast, the BST perspective provides a detailed and comprehensive analytical framework that includes both cultural cognitive and proximate institutions to pinpoint the key characteristics of institutions that shape firm characteristics and entrepreneurial initiatives. By doing so, the BST approach may help to identify important causal relationships and market imperfections, thereby enabling policymakers to understand entrepreneurship more adequately and to develop more appropriate policies to promote entrepreneurship.

The key distinguishing characteristic of the BST perspective is the broader definition and framework of institutions that characterize the societal context shaping business system characteristics that, in turn, influence firms and firm behavior (Jackson and Deeg 2008). The evolutionary nature of the business systems framework therefore makes it more appropriate to study the changing nature of BS characteristics as well as entrepreneurship, because entrepreneurship comprises both venture-creation and venture-management processes. Typically, the entrepreneurship stream tends to use an institutional perspective that is rooted in organizational sociology and organizational psychology (Bruton et al. 2010), and thus this stream generally uses the institutional framework proposed by Scott (1995). Scott (1995) proposes three pillars that constitute institutional systems shaping human behavior in society: they are regulative, normative, and cognitive institutions.

The business systems literature, however, categorizes institutions primarily into two broad types based on the nature of institutions and their origin, that is, background institutions are driven by culture and the history of a society and proximate institutions are shaped by formal initiatives as well as background institutions (Whitley 1992a, b). During periods of institutional development (i.e., change), one type of institution affects the other in a process of complementarity; this complementarity mechanism derives from the nature of interactions between firms, entrepreneurs, civil society actors, and institutions. This creates path dependency that leads a society's entrepreneurial cognition, venture creation, growth, and industrial development in a particular direction (Deeg 2005), depending on the current institutional conditions and their evolutionary nature. We summarize the institutional characteristics in Table 13.2 and present the links between institutionalism presented by Scott (1995) and comparative/national BST. The idea is to show them in detail so that entrepre-

neurship researchers can see the connections between institutionalism and BST and can benefit from the broader institutional framework of BST.

Although it was Whitley (Whitley 1992a, b) who first set out BST, Redding (Redding 2002, 2005) advanced it by illustrating cultural cognitive institutions more deeply (i.e., background institutions). Redding (2005) characterized cultural-cognitive institutions in terms of the role of civil society, social capital (network, trust, and moral base), rationales, identity, and authority hierarchy, which, together with proximate institutions (such as the role of state, capital institutions, and education and labor institutions), affect the nature of business systems and entrepreneurships. However, Redding’s (2005) version does not differ in nature from Whitley’s (Whitley 1992a, b) (see Table 13.2). Redding’s (2005) explanation of the role of culture in terms of material versus ideational logics, rationales, identity, authority hierarchy, and the role of civil society is a detailed framework that can help to explain entrepreneurial mind-sets, entrepreneurial orientation, and motivation. Redding’s

Table 13.2 Institutional frameworks in institutionalism and business systems

Institutionalism	Business systems theory		
Supportive institutional pillars (Scott 1995)	Key social institutions (Whitley 1992a, b)	Key institutional characteristics (Whitley 1992b, 2010b)	Key institutional characteristics (Redding 2005, 2002)
Regulative institutions	Proximate institutions	State structures, policies (institutional regulations) Financial systems Labor systems (education and training)	<i>Role of the state:</i> Financial capital institutions Human capital institutions
Normative institutions	Background institutions	Norms governing trust and authority relationships	<i>Role of civil society:</i> Social capital institutions (e.g., trust, network, moral base)
Cognitive institutions		Trust in formal institutions and nonkin relationships Paternalist/contractarian/communitarian justification of authority	<i>Role of culture (material vs. ideational logics):</i> Rationale Identity Authority hierarchy

explanation of culture as a background institution in the business system goes beyond the idiosyncratic explanation of the cultural dimension perspective (as presented by Hofstede), providing an avenue for deep explanation of the mental map and logics that are instrumental in decision-making processes and entrepreneurial cognition.

Whitley's (2010b) framework of institutions presents a rich description of formal institutional characteristics, called proximate institution, that create the conditions that either enable or constrain different forms of entrepreneurship. Thus, the nature of firms' new venture creation and growth are expected to be the output of the proximate institutional condition to which entrepreneurs can adapt, manipulate, and innovate by their cognitive intelligence and human capability, which is underpinned by societal background institutions (Rana and Sørensen 2016). However, Whitley (2010b) and Redding (2005) both present detailed descriptions of the proximate institution and background cultural-cognitive institution, and researchers could potentially use either framework to analyze entrepreneurship and explain entrepreneurial behavior. For instance, this institutional framework can be applied across different contexts by conceptualizing key aspects of institutions, and then researchers can investigate the ways in which those key institutions shape firms' structures, strategies, and entrepreneurial process.

Central to BST analysis is the 'systemic' nature of the institutional system, which is a potential historical and cultural outcome in certain circumstances, in cases where the institutions 'fit' together and reinforce/complement each other. This is not invariably the case; some national contexts lack fit and complementarity, inhibiting their ability to provide a stable and coherent environment in which entrepreneurial ventures can develop and grow. In other contexts, there is only partial fit, leading to a positive environment for some firms or entrepreneurs and a negative one for others; this can, in turn, create an imbalance in the economy and industrial growth. In some cases, regional differences emerge from long-standing historical distinctions or the impact of earlier periods of sectoral specialization, for example, in Italy and Germany (Rana and Morgan 2015).

Therefore, BST is not concerned with static system models that assume coherent 'national business systems' in multiple contexts but emphasize change and instability as well as continuity (Whitley 1999a). This is reinforced by the recognition in BST that not all combinations of institutions are either possible or effective in producing firm-level and entrepreneurial-level efficiencies or national-level processes of stable growth. Indeed, some societies may lack any sustained system-like characteristics due to disrupted and complex histories, for example, many emerging economies that have 'fragmented' or 'segmented'

business systems (Whitley 1999b; Wood and Frynas 2006; Rana and Sørensen 2016). Other systems may settle into a low-performance equilibrium; for example, a number of researchers have discussed, in various contexts, societies that have evolved a 'low-skill equilibrium' model. In such situations, the system of skills and training institutions is weak, leading to employers having to rely on low-skilled workers and production processes that add little value. The apparel sector in Bangladesh fits this type well (Reinecke and Donaghey 2015). Such low-performance equilibria make societies weak in responding to economic changes and have the potential to aggravate social conflict; however, moving societies out of low-performance equilibria is difficult as elite actors are likely to benefit from institutional systems that are dysfunctional for other individuals. Such systems will develop in path-dependent ways as elites will be reluctant to make changes (Wood and Frynas 2006).

BST aims to address these issues in part through constructing typologies of institutional systems that capture a limited number of distinctive institutional formations where forms of complementarity and fit between institutions and between institutions and firm-level strategies and entrepreneurial initiatives can be seen. Such typologies are Weberian ideal types in nature, focusing on certain key features that shape the 'system'; they are not meant to be descriptions of empirical reality but constitute rather a yardstick against which actual contexts and their trajectories can be compared and explained (Whitley 2007; Allen 2014).

This point is particularly important as product, capital, and some labor markets are becoming more international, increasing the overlapping relationships between two or more institutional systems (Allen and Whitley 2012). Firm management and entrepreneurship are, therefore, not only embedded in a single institutional system, but, potentially, in multiple institutional systems in which they draw resources, (seek to) exploit competitive advantages, and grow, even though they originate from one institutional system (Allen et al. 2017). The BST can help to explain how entrepreneurs and entrepreneurial firms from contrasting business systems are likely to respond differently to the managerial challenges posed by investing abroad.

In the case of international entrepreneurship or transnational diaspora entrepreneurship research (see, Rana and Elo (2016, 2017)), BST can be a useful framework to explain (1) why some entrepreneurs/firms move from one institutional system to another institutional system and (2) how they maintain their competitive advantages since the institutions that have supported their developments may no longer be present in the foreign institutional context. What adaptations do they make to their own practices and how do they respond to different institutional contexts; do they seek to insulate themselves, do they seek to change the context as institutional entrepre-

neurs (Dekocker et al. 2012), or do they change to accommodate the new pressures and, in the process, become more innovative and sustainable?

Entrepreneurs may take with them certain expectations about management, networks, and organization derived from their home-country experience, but they may find that this does not fit a different context (Almond and Ferner 2006). Indeed, they may internationalize precisely to 'escape' the constraints of their home-based institutions and to learn new ways of doing things in different locations in order to become more competitive and adaptive on a global level (Allen et al. 2017; Witt and Lewin 2007).

In the case of microlevel analysis in entrepreneurship, BST can help to explain the entrepreneurial orientation of firms by addressing the questions of whether they are risk-taking, proactive, autonomy seekers. Do they have an innovation mind-set and continually seek to offer products and services that are better than their competitors (Lumpkin and Dess 1996)? The innovativeness, proactiveness, and competitive aggressiveness orientations depend on the entrepreneur's high-level skills, education, social capital, and contextual intelligence. The risk-taking and autonomy orientations derive from the personality type and living conditions; those formal proximate institutions that support entrepreneurship processes, particularly those related to the building of trust, the availability of finance, and state support for new ventures, reinforce risk-taking and autonomy orientations. For the different aspects of entrepreneurial orientation, institutional analysis can explain the logics of decision-making, risk-taking, and entrepreneurial focus and strategic orientation. Analysis of entrepreneurial focus and strategic orientation, with the help of institutionalism, can explain entrepreneurs' and firms' focus (whether short-term or long-term oriented, whether entrepreneurs develop proactive strategy with competitive aggressiveness or reactive decisions, and whether entrepreneurs tend to focus on traditional business with low risks or pursue innovative and high-risk projects). Key cultural-cognitive institutions, together with proximate institutional analysis, can explain what shapes particular entrepreneurial dynamics (i.e., motivation and orientation) in one institutional context while they may not be instrumental in another context.

While analyzing processes and change, BST can help to explain how entrepreneurs legitimize the new venture (i.e., new product, new solution, and new process) in local and/or foreign contexts, including the strategies employed in order to be accepted in that context, and what identity entrepreneurs possess (Rana 2014; Turcan et al. 2012; Rana and Sørensen 2014). The legitimation process comprises not only the strategies that entrepreneurs employ but also the agency (i.e., power) of key institutions, competitors, and entrepreneurs, and the variations in their expectations that entrepreneurs need to meet.

As discussed earlier, BST has been generally concerned with process and change as a longitudinal and cross-national phenomenon that occurs within firms and institutions in ways that are often unanticipated and unexpected as actors shape and reshape institutions and firms (Kristensen and Morgan 2007). For this reason, the predominant methodological approach supports deep case studies at entrepreneur, firm, regional, or national level with a longitudinal focus on change and process (Casper 2009; Lange 2009; Divito 2012), though, in some circumstances, large-scale surveys are undertaken (Witt and Jackson 2016; Ioannou and Serafeim 2012). BST has a number of implications for future research on entrepreneurship. In particular, the view that actors, including entrepreneurs and entrepreneurial firms, and institutions mutually constitute one another means that any comprehensive analysis of entrepreneurship should incorporate how institutions shape entrepreneurs' identities and interests and the effects that these have on the behavior of entrepreneurs. Similarly, entrepreneurs' behavior will constitute institutions. For instance, entrepreneurs that respond to institutions by focusing on short-term objectives will reinforce the institution. In short, institutions and actors are not discrete entities but are intertwined. Although it is empirically difficult to combine the two, an understanding of how the nature of entrepreneurs and entrepreneurial behavior varies between contexts will help to explain how rates of entrepreneurship, success rates, and sectoral specialization differ across countries and regions.

Conclusion

In this chapter, we have demonstrated how the business-system framework differs from related institutional perspectives and provides an additional analytical tool for entrepreneurship researchers. The encompassing and systematic nature of the business-system theoretical framework means that it can facilitate holistic analyses of the duality between context and actors; it is this duality that influences entrepreneurship in different locations. By combining such a perspective with traditional emphasis on the characteristics of individual entrepreneurs, their networks and the market opportunities afforded by different economies within the entrepreneurship literature, more detailed understandings of how and why entrepreneurial activities do or do not take place are likely to emerge. This, in turn, is likely to lead to more impactful research and more cogent policy recommendations.

BST has a number of implications for future research on entrepreneurship. In particular, the view that actors, including entrepreneurs and entrepreneurial firms, and institutions mutually constitute one another means that any

comprehensive analysis of entrepreneurship should incorporate how institutions shape entrepreneurs' identities and interests and the effects that these have on the behavior of entrepreneurs. In short, institutions and actors are not discrete entities but are intertwined. Although it is empirically difficult to combine the two, an understanding of how the nature of entrepreneurs and entrepreneurial behavior varies between contexts will help to explain how rates of entrepreneurship, success rates and sectoral specialization differ across countries and regions.

Such research is likely to be challenging as it will require an assessment of entrepreneurs' psychological characteristics as well as the entrepreneurs' specific institutional setting. The analysis will also need to cover how the two relate to one another. However, such research will help to reveal how the characteristics of entrepreneurs influence how they interpret and construct their institutional settings and how they respond to their settings. In other words, if an individual's learning orientation predisposes him or her to be keen to try new activities even though there is a possibility of failure may thrive in an institutional setting that promotes serial entrepreneurship, even if some of those entrepreneurial ventures fail. By contrast, individuals whose psychological traits prevent them from being entrepreneurial because of their fear of failure may not be able to be entrepreneurial even in settings that favor new ventures.

By contrast, institutional supports and constraints for entrepreneurship in a context would affect entrepreneurs' ability to take risk, access to finance, receive state and intermediary institutional supports, and manipulate the factors of production, marketing, competency, and knowledge available in that context. This ability of entrepreneurship is even more critical in case of international entrepreneurship (Rana and Elo 2017), diaspora entrepreneurship (Rana and Nipa 2018), and new venture creation and legitimation in a new sector and new country due to higher degrees of institutional distance, institutional difference and newness. Such a condition determines the extent to which the entrepreneur would hold mental capacity, skills, and social capital, which ultimately will influence the entrepreneurial process, success, and failure (Turcan and Fraser 2016). As a result, studies that focus on psychological profile of entrepreneurs' and the resulting outcome in entrepreneurship will not be able to explain how that particular psychological profile were more prevalent in a particular context that affected entrepreneur's to develop a particular capability leading to a certain outcome in the entrepreneurial process.

Combining traditional entrepreneurship perspectives with BST could also enable a greater awareness of how the internationalization of product, capital, and some labor markets influences entrepreneurship. At present, much entre-

preneurship research focuses on entrepreneurs' immediate institutional influences. While this is appropriate for many ventures and new organizational structures and processes, this is not always the case. For instance, the management of new ventures may require either the recruitment of skilled labor from abroad or the transfer of certain activities to foreign facilities. In addition, by combining traditional entrepreneurship perspectives with BST, the role of entrepreneurs both individually and collectively in reshaping institutions could be examined, eschewing a static and deterministic view of institutions.

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14

Education Policy Perspective on Entrepreneurship

John E. Reilly

Introduction

It is probably a mistake to quote scripture in an academic publication because an exegesis will be expected. However, Bill Gates in his Harvard Commencement speech in 2007, in which he was urging the faculty and graduates to recognise their responsibility to tackle global problems, quoted a letter from his mother in which she said “From those to whom much is given, much is expected”. J.F. Kennedy, in an address to the Massachusetts legislature, January 9, 1961, expressed it slightly differently “For of those to whom much is given, much is required”. In both cases, the concept is clear but neither acknowledged or were expected to cite their source expressed at greater length and perhaps more elegantly “For unto whomsoever much is given, of him shall be much required: and to whom men have committed much, of him they will ask the more” (Luke 12:48 King James translation).

Bill Gates was addressing a gathering at Harvard but his admonition was intended to apply more universally to the academic world. Universities may justifiably fear that international and national bodies too have this scriptural admonition in mind when they proclaim their manifold requirements for what universities are to achieve in the twenty-first century amounting to a transformation of the economic, social and political landscape. The intensity and diversity of the demands on universities for ‘in-depth reform’ to address

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the current perceived needs of governments and society puts them in an enviable central role but it may also challenge more universal university values.

This chapter reflects on one aspect of the extensive external agenda for Higher Education, namely, the rise in the volume of exhortation on the need for entrepreneurship and entrepreneurial education in universities as a key component in the solution to the perceived needs of the age. This may possibly be interpreted as an indication of frustration that in spite of increased investment and greater participation in Higher Education, the impact is not achieving the hoped-for results. It examines a selection of international and national reports and statements which assert the importance and need for entrepreneurial education. It notes that for the large part universities have been followers rather than leaders and that there is significant ambiguity in the statements about what is expected from universities. Are they to become more entrepreneurial institutions; are all students in all three cycles to learn to be entrepreneurial; should there be an increase in programmes devoted to entrepreneurship; and in each case, what would the transformation/reform mean in practice?

In Europe, the European Commission has led the campaign for greater emphasis on entrepreneurship and has sponsored a number of dedicated initiatives recognising that the European response to entrepreneurial education has been muted and possibly of poor quality. While the Commission has been active in promoting the topic, it could be argued that the case for entrepreneurial education has become an article of faith rather than a policy based on evidence. It has not produced evidence-based research to demonstrate the impact of entrepreneurial education and how this relates to the need for graduates with well-grounded subject-specific knowledge, understanding and ability as well as generic competences. In particular, it has not exploited the growth in Erasmus+ work placements/traineeships to focus on the entrepreneurial competences which placements should engender.

In the wider Europe represented in the European Higher Education Area (EHEA)—Bologna Process—the assertion of the importance of entrepreneurial education as a source for change and a motor for achieving the goals of the EHEA has been slower to gather momentum, but in the most recent communiqués it could be said that the entrepreneurial throttle has been opened and now, if not quite in pole position, entrepreneurial education is among the leaders on the grid. It remains to be seen whether and how this will result in radical change in curriculum and how EHEA universities will respond to the challenges. In the final section, the UK is presented as a possible case study of a country which may be argued to have embraced the entrepreneurial agenda.

Expectations from Higher Education

In October 1998, United Nations Educational, Scientific, and Cultural Organization (UNESCO) convened a World Conference on “Higher Education in the Twenty-first Century”. Its extravagant objective was to “lay down the fundamental principles for the in-depth reform of higher education systems throughout the world”. The report and the “Framework for Priority Action for Change and Development in Higher Education” (UNESCO 1998) is emblematic of the way in which governments and international organisations seek to articulate a role for Higher Education which might be interpreted as being “all things to all people”.

The summary of the Declaration illustrates the comprehensive multifaceted roles which Higher Education is expected to play:

The core missions of higher education systems (to educate, to train, to undertake research and, in particular, to contribute to the sustainable development and improvement of society as a whole) should be preserved, reinforced and further expanded, namely to educate highly qualified graduates and responsible citizens and to provide opportunities (*espaces ouverts*) for higher learning and for learning throughout life. Moreover, higher education has acquired an unprecedented role in present-day society, as a vital component of cultural, social, economic and political development and as a pillar of endogenous capacity-building, the consolidation of human rights, sustainable development, democracy and peace, in a context of justice. It is the duty of higher education to ensure that the values and ideals of a culture of peace prevail. (ibid.: 1)

These core and far-reaching objectives are demanding, possibly utopian, but they do not represent the full extent of the expectations which Higher Education is expected to fulfil. In addition, higher education institutions (HEIs) are to be “critical and forward-looking ... through the ongoing analysis of emerging social, economic, cultural and political trends, providing a focus for forecasting, warning and prevention”. They must be relevant “in terms of the fit between what society expects of institutions and what they do. Institutions...should base their long-term orientations on societal aims and needs, including the respect of cultures and environment protection”.

HEIs must also be responsible for the development of “*entrepreneurial skills and initiatives (which) should become major concerns*” (my italics). “Special attention should be paid to higher education’s role of service to society, especially activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger, environmental degradation and disease, and to activities aiming at the development of peace, through an interdisciplinary and transdisciplinary

approach”. They must be ‘student centred’, ensure equal opportunities, widen participation, exploit the full potential of information and communication technologies, develop an international dimension and be committed to a pervasive quality culture’.

The 1998 UNESCO Declaration and Framework for action provide evidence of the pivotal role that government rhetoric and exhortation is claiming for HEIs. It has been followed up by successive meetings. In May 2015, the Incheon Declaration and Framework for Action “for the implementation of sustainable development goals for – ensuring inclusive and equitable quality education and promote life-long learning opportunities for all” was adopted (UNESCO 2015). The four targets for the sustainable development goal 4, includes 4.4: “By 2030 substantially increase the number of youth and adults who have relevant skills including technical and vocational skills for employment, decent jobs and *entrepreneurship*” (ibid.: 20, my italics).

The UNESCO documents define a role or roles, which, if the Declaration is taken at face value, place a heavy responsibility and burden on institutions, their staff and their leaders. The question must be posed whether this all-embracing mission is either appropriate or achievable and whether teachers actually engage with the extended agenda. This question will be in the background of the exploration of ‘entrepreneurism and entrepreneurship’ in education, the demand for which has become progressively louder and more persistent from international organisations—UNESCO, Organisation for Economic Co-operation and Development (OECD), the European Union (EU) and national governments through the Bologna Process and the EHEA.

The election of President Trump in the US might be perceived to represent the apotheosis of entrepreneurship. An entrepreneur has become the Head of State of the most powerful country in the world and his cabinet and immediate advisers are in large part successful entrepreneurs. Time will reveal whether entrepreneurial success translates or transfers seamlessly into success in government in all its facets.

Other chapters in this volume address aspects of the history of entrepreneurship as an academic subject in more detail than we do here. Suffice to say that Schumpeter’s *Theory of Economic Development* (1934) (Schumpeter 1934) is credited by many writers as the precursor of formal teaching of entrepreneurship, with the first graduate course offered by Harvard in 1948. Karen Wilson (2008) points out that while entrepreneurship courses are pervasive in universities in the US, “In Europe entrepreneurship only substantially began to enter the curriculum in the last ten years”, that is, in the latter part of the 1990s and increasingly as the new century progressed. This coincides with the launch of the Bologna Process and the increasing engagement of the EU with Higher Education policy and delivery, which is discussed in more detail in the next section.

In Search of a Mission for Higher Education

The development, popularity and burgeoning of new subject areas in Higher Education is closely associated with growth in the number of institutions and greater participation in Higher Education, both of which have contributed to a more competitive Higher Education environment and continuous open and public scrutiny of the purpose of and outcomes from high public investment in Higher Education. As students, their families and governments pay close attention to educational returns, institutions are anxious to demonstrate their distinctive qualities and identity, in their approach to learning and teaching and in their subject focus, manufacturing a constant flow of new degree titles and repackaging of existing ones in inter- and multidisciplinary programmes. In response to imaginative initiatives from the European Commission, national growth in new programmes has been complemented by a growth in joint international degrees, mainly at the second and third cycles. The Education, Audiovisual and Culture Executive Agency (EACEA) website (EACEA 2017) provides an excellent illustration of the variety of Erasmus Mundus joint programmes in all subject areas.

In their day-to-day work, individual academics may not think a great deal about the role of the university since they tend to be absorbed by their subject, their immediate teaching responsibilities, their research and how these contribute to the development of their professional career. However, they cannot ignore the growing societal pressures on Higher Education and have to respond by adapting curriculum content and methods of learning and teaching. Because they have to compete for students and are subject to student evaluation, they have to consider the general attractiveness of course titles and content and the longer-term impact on the future employment of their students.

Although the individual university teacher may not be occupied with a vision of the university mission, it is probable that, as a collective, the wider university community may continue to espouse Newman's *Idea of the University* (1852) (Newman 1852) and the paramount importance of the pursuit of knowledge for its own sake or Humboldt's emphasis on research and remain convinced that these are the real and true objects of university education. However, in a world more and more dominated by populist politics and media headlines, these perspectives no longer hold general sway and as Sacha Garben (2012) asserts "the relevance of education is increasingly phrased in economic terms favouring the skills-oriented approach focusing on employability of graduates and encouraging universities liaising with the business community".

This view provides the thrust behind the assertion in EU, OECD, UNESCO and Bologna/EHEA documents that Higher Education is a 'public good'. Public good may be cloaked in honeyed rhetoric but in essence it is related to the economic return from a more highly educated population with an escalating obligation on HEIs to 'produce' graduates with relevant skills and competences for the labour market. Universities are urged to ensure that they are student centred, concentrating on the student as learner, ensuring a transparent articulation of outcomes expressed in terms of knowledge, understanding and ability. The European Commission-funded Tuning projects have taken this approach to a global level in a wide range of subjects integrating and making explicit generic and subject-specific competences as key components of the outcomes approach (Tuning Academy 2017).

Although the initial 'outcomes' policy was based on first-cycle programmes, the outcomes approach now permeates second and third cycles. The European *Principles for Innovative Doctoral Training* (European Commission 2011) indicate explicitly that alongside research training and a research output, development of transferrable competences must be a central component of doctoral training. "It is essential to ensure that enough researchers have the skills demanded by the knowledge based economy. Examples include communication, teamwork, entrepreneurship, project management, IPR, ethics, standardisation" (ibid.). Note that for doctoral candidates, 'entrepreneurship' is perceived to be a critical competence and this is a generic competence applying to all subjects.

Phrases such as 'value' and 'value added' in relation to the objectives of Higher Education have been replaced by economic return, employability, innovation and creativity and explicit references to the need for entrepreneurial training have become more prominent and insistent. The Recommendation of the European Parliament and Council on key competences for lifelong learning (EC COM 2006) identified "Sense of initiative and entrepreneurship" as one of the eight key competences for all citizens (ibid.).

Accompanying other policy objectives for a general growth in participation in Higher Education has been the social cohesion agenda to widen this participation. This theme has become more dominant both within the EU and the Bologna Process. While it is argued in terms of equity and benefits to the individual, it is difficult to avoid being cynical when, in practice, large-scale expansion in many countries is seen to benefit what might be broadly defined as the middle classes.

All of this is pertinent to any consideration of entrepreneurship in education because it reveals the manifold pressures and far-reaching agenda with which universities now have to operate and which were expressed in elaborate

detail in the UNESCO Declaration and Framework of 1998. They are expected to be agents for social change, for economic development, regional, national and international, for research with increasing emphasis on impact-focused research, for development of the widest range of skills and competences in graduates in all cycles and all subjects, for employability, for engendering civic values and developing *entrepreneurism*. Universities themselves are expected to be entrepreneurial and the EU and OECD have together developed a self-assessment tool for institutions to evaluate the extent to which they are effectively entrepreneurial—*A Guiding Framework for Entrepreneurial Universities* or as it is known on the EU website *HE Innovate* (OECD and European Commission 2012). A prominent indicator in the self-assessment is the extent to which the institution has incorporated “entrepreneurship development in teaching and learning” in all departments.

Interpretations of the Entrepreneurial Prescription

Although the European Commission—OECD—guide has transparent indicators, it is not always clear from the Delphic shorthand used in many official documents whether the admonitions to Higher Education in relation to entrepreneurship are designed to ensure that universities engender an entrepreneurial spirit in all their graduates, provide modules which all graduates take, offer more degrees in entrepreneurship, and/or create cohorts of entrepreneurs. To the extent that the Trump administration is seen to be ‘entrepreneurial’, its success or otherwise may give impetus or the reverse to any or all of these.

A recurring theme in European and Bologna documents, is a commitment to lifelong learning. This, too, may be related to the growing emphasis on entrepreneurial skills with employers valuing the ability to learn: learning to learn is a competence which all graduates need to acquire. A recent special issue of *The Economist* devoted to lifelong learning, includes a feature on “How to Survive in the Age of Automation” proposing that the real challenge for most workers will not be entrepreneurship but coping with and adjusting to the dominant changes produced by new technology and automation (The Economist 2017).

Assertions of this kind may paradoxically give some pause to the increasing emphasis on the vocational expectations for Higher Education and may provide a counterpoint to the entrepreneurial lobby. Recognising that Higher Education first-cycle degrees are a starting point and that, “In many occupations it has

become essential to acquire new skills as established ones become obsolete”, the author argues that “To remain competitive and to give low – and high skilled – workers alike the best chance of success, economies need to offer training and career focused education throughout people’s working lives” (The Economist 2017, 6). The author suggests that this poses new challenges for universities in the way in which they market and package their education. In shorthand, although this is not stated explicitly, universities need to become even more entrepreneurial because, in their current form, “academic institutions also struggle to deliver really fast moving content” (ibid.). However, universities will be further challenged in their widening participation (social inclusion) agenda as “The emerging system of life-long learning will do little to reduce inequality unless it can be made more accessible and affordable” but it is easier “To imagine a future in which the emerging infrastructure of life-long learning reinforces existing advantages, far from alleviating the impact of technological upheaval that would risk exacerbating inequality in the social and economic tensions it brings in its wake” (ibid.). It may be that the proponents of the saving quality of entrepreneurship will wish to claim that this is precisely the situation in which the development of entrepreneurial attributes will help individuals to meet the new challenges.

OECD has played a significant role in developing understanding of entrepreneurship and entrepreneurship in Higher Education. Its publication *Entrepreneurship and Higher Education* (Potter 2008) argues that “A transformation in the activities of HEIs is required if they are to play their full part in stimulating economic growth and competitiveness in the modern knowledge economy. Greater weight needs to be accorded to activities that support entrepreneurship and innovation in particular through entrepreneurship, education and knowledge transfer to enterprises” (ibid.: 11).

It also stresses the distinction to be made “between entrepreneurial education and training which could apply to all forms of education and entrepreneurship education and training, which is specifically concerned with new venture creation and innovation” (ibid.). The second use of the term applies specifically to degrees which have the title Entrepreneurship and Entrepreneurship and are focused solely on aspects of that subject. Both objectives indicate the need for a changing role and attitude in universities but they also point out an important, and often not well articulated, difference between entrepreneurial education and entrepreneurship education. The former, it is maintained, should be embedded in all subjects.

This is stressed in a report from the Kauffman Panel on Entrepreneurship Curriculum in Higher Education which asserts that “Entrepreneurship should be both a legitimate subject in American undergraduate education

and a pervasive approach to learning and the management of universities” (Kauffman Panel 2008, 4). It also proclaims that “Entrepreneurship must find its place among and within the disciplines to become genuinely mainstream” (ibid.). In other words, all subject areas should include the entrepreneurial dimension. Many of the European Commission documents on this subject do not distinguish between the two approaches to entrepreneurial education and it has to be assumed that they, in practice, embrace both.

Arising out of a European Commission conference on Entrepreneurship Education in Europe in Oslo in October 2006, the agenda for entrepreneurship education known as the Oslo Agenda was established. It provided a catalogue of initiatives which it was hoped might be used both in the EU and in the neighbouring countries. Initiative D10 proposes that “Higher education establishments should integrate entrepreneurship across different subjects of their study programmes, as it may add value to all degree courses (e.g. technical and scientific studies, but also humanities and creative studies). All faculties/disciplines should develop opportunities for students at every level to experience entrepreneurship” (European Commission 2006).

In 2008, the Commission published a survey of Entrepreneurship in Higher Education in Europe (NIRAS Consultants, FORA and ECON Pöyry 2008). This study suggests that, at that time, the scope of entrepreneurial education was of concern. It “estimated that more than half of Europe’s students at the Higher Education level do not even have access to entrepreneurial education” (ibid.: 3). The report indicates three main obstacles to entrepreneurship education (ibid.: 200):

- Dependence on a single person or few people
- Sufficient academic time to engage in entrepreneurship
- Inadequate level of educated competence

In addition, it is a field “that has to fight for its reputation, the lack of academic credibility surrounding entrepreneurship can also make it difficult for entrepreneurship education to be accepted in faculties and especially non-business faculties” (ibid.: 203).

Complementing its own work, in the field of entrepreneurship education, the European Commission co-funds work by other organisations. The Knowledge Economy Network published *Entrepreneurship Education: A Guide for Educators: Entrepreneurial Education & Training in CEI Countries for the 21st Century* (2014) (not to be confused with a Commission publication *Entrepreneurship Education: A Guide for Educators* also published in 2014) supported by the European Commission and the Central European Initiative (CEI) Cooperation fund. In a separate document, *Entrepreneurial Education*

✂ *Training in CEI Countries for the 21st Century* (Knowledge Economy Network 2014), the Network published a set of recommendations. The recommendations propose the modernisation and reform of education and training and state that: “Unless curricula and teaching and learning methods are modernised, particularly at post-secondary education institutions – even if entrepreneurship study is introduced – it will remain **an alien component** inconsistent with the rest of the learning process” (ibid.). This is an echo of the 2008 Commission survey referred to earlier. Other recommendations reinforce the thesis in the Kauffman report and the Oslo Agenda that entrepreneurship should be embedded in the education process.

EU Engagement with Entrepreneurship Education: A Historical Overview

The EU engagement with entrepreneurship and entrepreneurial education can be traced to the 2000 Lisbon Strategy and its ambitious objective to make Europe “The most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion” (Lisbon European Council 2000). While in 2017 this objective had a hollow ring, it has nevertheless been the basis for a range of documents increasingly declaring the importance of entrepreneurship education for delivering economic growth and realising the Lisbon objectives. The insistence on the role of universities in developing entrepreneurial competences has been reinforced by the EU’s 2020 Strategy (EC COM 2010) and the Innovation Union which calls on member states “To ensure a sufficient supply of science, maths and engineering graduates and to focus school curricula on creativity, innovation and entrepreneurship” (EC SEC 2010).

The 2009 Strategic Framework for European cooperation in Education and Training (‘ET 2020’) strategic objective 4 is: “Enhancing creativity and innovation including entrepreneurship at all levels of education and training”. The Communication from the Commission on the Entrepreneurship 2020 Action Plan published in 2013 broadens the scope of ‘Higher Education for Entrepreneurship’ stating that “The role of Higher Education in Entrepreneurship goes far beyond the delivery of knowledge to participating in Ecosystems, partnerships and industrial alliances”. “Universities should become more entrepreneurial. The first ‘Pillar’ of the ‘Entrepreneurship 2020 Action Plan’ (EC COM 2013) is Entrepreneurial education and training to support growth and business creation”. The Plan insists that “Investing in entrepreneurship education is one of the highest return investments Europe can make”.

The Entrepreneurship 2020 Action Plan is forthright in criticism of the current state of entrepreneurial education in Europe—“Generally **would-be entrepreneurs in Europe find themselves in a tough environment**: education does not offer the right foundation for an entrepreneurial career”. The plan commits the Commission to a number of actions including the dissemination and promotion of the entrepreneurial university guidance framework to the EU HEIs and seeks to engage member states calling on them to “Ensure that the key competence entrepreneurship is embedded into curricula across primary, secondary, vocational, higher and adult education before the end of 2015”.

The Action Plan needs to be viewed in the context of a final report published in the following year from the EU Thematic Working Group on Entrepreneurship Education (2014). It echoes and reinforces earlier reports in its review of the current situation in Europe. Among the findings of the report are:

- Entrepreneurial curricula and teaching methods are rarely embedded throughout all age groups. Where there is entrepreneurship education, this is more commonly found at higher levels and related primarily to business skills.
- Entrepreneurial learning outcomes remain an undeveloped area across the EU characterised by a piecemeal and fragmented approach and lacking a lifelong learning perspective.
- Assessment of entrepreneurial learning is very underdeveloped and does not link to entrepreneurial learning outcomes and generally follows traditional methods.
- Educators and education leaders in Europe are not sufficiently trained in entrepreneurship education which negatively impacts on the potential for entrepreneurship to become embedded in education systems (EU Thematic Working Group 2014, 4).

As a solution to the problems, the report proposes an entrepreneurship ‘ecosystem’ with ambitious goals. Above all, it indicates the complexity of the topic and the interplay of a wide range of stakeholders, new curricula, new learning and teaching methods, a focus on learning outcomes and assessment of entrepreneurial competences, and support for educators and leaders ‘to deliver curricular, institutional and cultural change’. HEIs are encouraged to use HE Innovate, the self-assessment tool for HEIs ‘to develop and improve entrepreneurial and innovative institutions’ (EU Thematic Working Group 2014, 15).

To follow-up the Rethinking Education and the Entrepreneurship Action Plan, the Commission published the Entrepreneurship Competence Framework in 2016. In addition, giving a detailed map of competences, it groups them by level related to the European Qualifications Framework.

Through the flagship Erasmus+ programme, which is designed to contribute to the objectives of the Europe 2020 Strategy, the Commission encourages and provides tangible support for projects on entrepreneurship education. In addition to the incentive to undertake projects in the field of entrepreneurial education under Strategic Partnerships and Knowledge Alliances, the Action 1 Learning Mobility has as one of its headline outcomes “increased sense of initiative and entrepreneurship”.

Erasmus+ supports traineeships/work placements which provide another context for learners to develop entrepreneurial skills through short and/or extended periods in enterprises. The Strategic Partnerships action encourages “Transnational initiatives fostering entrepreneurial mind sets and skills to encourage active citizenship and entrepreneurship (including social entrepreneurship)”. Knowledge Alliances are designed *inter alia* to introduce “Entrepreneurship education in any discipline to provide students, researchers, staff and educators with the knowledge skills and motivation to engage in entrepreneurial activities in a variety of settings, as well as “Opening up new learning opportunities through the practical application of entrepreneurial skills which can involve and/or lead to the commercialisation of new services, products and prototypes”.

The Erasmus+ programme which is a global leader in the promotion of student mobility has been instrumental in stimulating large numbers of international traineeships/work placements. However, it is not evident to what extent institutions have sought to embed the placements in the development of entrepreneurial competences. Indeed, the training agreement, designed by the EACEA to be used by all institutions, is in a form which in practice does not ensure that defined competences, generic and subject-specific, are clearly articulated as effective learning outcomes which are then adequately assessed. Although credits may be awarded for work placements, the assessment of the achievements in the actual placement and the learning outcomes may require much more work and it is rare to see the competence ‘entrepreneurism’ even mentioned as an intended outcome.

On the whole, academic staff, in most disciplines, are not trained for work-based learning and do not interact with the employers. Over 60% of placements are found by students themselves and are not evaluated or in any way quality assured. Although by a process of osmosis students inevitably gain tremendously from their work placements, it is probable that if there was a

more structured, integrated and fully assessed approach, both the academic staff and employers would gain considerably more. It is an area which demands much closer scrutiny and at an EU level, the sort of guidance provided by the UK Quality Assurance Agency (QAA) referred to later in the chapter. A helpful starting point might be the UK Higher Education Academy publication—“Towards a competency framework for student work-based learning” (Jones and Warnock 2014).

This might be complemented by another UK publication—by ASET, the work-based and placement learning association, “Good practice guide for work-based and placement learning in Higher Education” (ASET 2013). While this is tailored for the UK context, it does have a range of good practice and a framework which is widely applicable.

Entrepreneurism in the Bologna Process and the European Higher Education Area

The development of the Bologna Process and the EHEA have become for the most part aligned with the policy objectives of the EU in the field of Higher Education but formal Bologna communiques have lagged behind the EU in their references to and emphasis on entrepreneurship education. Vignette 14.1 provides a brief historical review of EU and EHEA policy statements.

This brief review of some of the many EU and EHEA policy statements relating to Higher Education indicates the growing emphasis on entrepreneurship education and the increasing volume of the call to develop entrepreneurial competences for all graduates—first, second and third cycles. It is difficult to avoid being somewhat cynical about this. While the tone and phrasing of Bologna communications is measured and calm, there is a sense that Ministers and their advisers are desperate to find a solution to their current economic and consequent political and social woes and in doing so are losing sight of both the limits to what HEIs may be able to achieve without increased resources and more fundamentally the imperative to ensure a higher level of achievement in core subject and generic competences, without which entrepreneurship education will be hollow and have an ‘emperor’s clothes’ quality.

University Responses

Reports cited earlier indicate that although universities may have begun to embrace the insistent messages from governments, many have not. This

Vignette 14.1 Historical Review of EU and EHEA Policy Statements

The **Sorbonne Declaration**, which provided the initial impetus for the Bologna Process, refers to a Europe of Knowledge but focuses on harmonising degree structures, mobility and recognition of qualifications, with the aim of improving employability as the route to the achievement of the Europe of Knowledge.

The **Bologna Declaration June 1999**, which formally ushered in the Bologna Process, built on and reiterated many of the proposals in the Sorbonne Declaration. It listed six explicit objectives to be achieved over the next ten years.

Prague, two years later, added lifelong learning “as necessary to face the challenges of competitiveness and the use of new technologies and to improve social cohesion, equal opportunities and the quality of life”.

In **Berlin**, the Ministers responded to the European Councils in Lisbon and Barcelona and the objectives of the dynamic knowledge-based economy ‘through enhanced cooperation among European HEIs’ and by stressing that the EHEA and the European Research Area were ‘two pillars of the knowledge-based society’.

The **Bergen Communiqué 2005** is notable for its focus on doctoral education and the need to develop transferrable skills, ‘the developed transferrable skills thus meeting the needs of the wider employment market’.

The **London Communiqué 2007** provides a statement of what Ministers see as the role and purposes of Higher Education which include ‘preparing students for life as active citizens in a democratic society, preparing students for their future careers and enabling their personal development, creating and maintaining a broad advanced knowledge base and stimulating research and innovation’. It also warns that there will be a “need to adapt our higher education systems, to ensure that the EHEA remains competitive and can respond effectively to the challenges of globalisation”.

In their review of progress in implementing the Bologna objectives, the Ministers ‘underlined the importance of improving graduate employability’. For the first time, the priorities for the next follow-up meeting included employability and ‘how to improve employability in relation to each of the three cycles as well as in the context of lifelong learning’.

The **Leuven Communiqué 2009** develops the ‘employability’ theme, which in the aftermath of the economic upheaval had become a political imperative. It is remarkable that in contrast with the repetition and emphasis in EU education documents, there is no mention of entrepreneurship. Perhaps it could be seen as implicit in the reference to the need for ‘higher-level skills and transversal competences and for institutions to ‘be more responsive to employers’ needs’. The Communiqué also encourages work placements embedded in study programmes as well as ‘on-the-job learning’ both of which might be viewed as inculcating entrepreneurial competences but again the word is not used.

The **Bucharest Communiqué 2012**, the first under the formal banner of the EHEA, under the heading ‘Enhancing employability to serve Europe’s needs’ states: “Today’s graduates need to combine transversal, multidisciplinary and innovation skills and competences with up-to-date subject-specific knowledge so as to be able to contribute to the wider needs of society and the labour market”.

(continued)

Vignette 14.1 (continued)

The Ministers aim to enhance employability 'by improving cooperation between employers, students and HEIs especially in the development of study programmes to help increase the innovation, entrepreneurial and research potential of graduates'. This is the first mention in the Bologna communiques of entrepreneurial competences. In the context of promoting Doctoral employability and other EHEA priorities, the communique refers to the European Commission 'Principles for Innovative Doctoral Training' (see p.4 above) which state that 'Business should be more involved in curricular development and Doctoral training so that skills better match industry's needs'. The priorities for the next phase of the EHEA process include 'work to enhance employability, life-long learning, problem solving and entrepreneurial skills through enhanced cooperation with employers, especially in the development of educational programmes'. So in 2012, entrepreneurship has reached the top of the EHEA agenda.

The **Yerevan Communiqué May 2015** is even more categorical in its commitment to 'Promote a stronger link between teaching, learning and research at all study levels and provide incentives for institutions, teachers and students to intensify activities, to develop creativity, innovation and entrepreneurship'. It has an equal commitment to 'Fostering the employability of graduates throughout their working lives'. Here, too, 'Fostering the entrepreneurship and innovation skills of students' is a key objective. It can be seen that the EU and Bologna agenda are now in harmony in their evangelism for 'entrepreneurship' in Higher Education.

should not be surprising, the need for increased and different types of resource to enhance the recruitment, training and development of academic staff and restructuring of institutions in their relationships with employers and business generally are lacking. As often happens—there is a gap between rhetoric and delivery. The economic crisis has meant that in many countries there has been a reduction in funding for Higher Education. Simultaneously, institutions are faced with a multiplicity of demands for change and engagement and a highly competitive environment, both national and international. The international and national agendas show signs of interacting in perhaps the most challenging ways for institutions. On the one hand, internationalisation is urged as a key goal for institutions and an aspect of their entrepreneurial commitment, while on the other, the resurgence of nationalism and associated protectionism is pulling in the opposite direction. At the same time, universities are asked to take on a social role in widening participation which poses further challenges for resources and learning and teaching methods and facilities. The UK (Vignette 14.2) may be considered to have embraced the entrepreneurial agenda more than some other countries in the EU. (Alas, it will no longer be possible to use this phrase in two years' time).

Closer engagement with employers in curriculum development is a perennial exhortation from governments but this, too, seems to have limited suc-

Vignette 14.2 Entrepreneurial Agenda in UK Higher Education

UK has a highly competitive environment, is much influenced by ranking tables (national and international), is subject to regular nationally organised research assessment reviews and rankings and is engaged in a new 'Teaching Excellence Framework' assessment exercise (*Note—this exercise formally applies only in England*). Over a number of years, Ministers have admonished institutions to respond to change and, in the most recent proposed legislation, intend to open the Higher Education market (in England) to new providers, partly on the argument that "The role of incumbents in the current system (also) risks limiting innovation" (Department for Education 2017).

The White Paper which provided the basis for the new legislation is entitled "Success as a knowledge economy: Teaching excellence, social mobility and student choice", (Department for Business Innovation and Skills 2016). In the Executive Summary, paragraph 5, the role of Higher Education is encapsulated by the assertion that "There is more to be done for our university system to fulfil its potential as an engine of social mobility, a driver of economic growth and cornerstone of our cultural landscape".

It comments on student dissatisfaction with the provision provided, employers' concerns at skills shortages and other shortcomings. For the government, these stem from "insufficient competition and a lack of informed choice". Their solution, which is inherently entrepreneurial, is 'more competition' since "Competition between providers in any market incentivises them to raise their game, offering consumers a greater choice of more innovative and better quality products and services at lower cost. Higher education is no exception".

A National Centre for Entrepreneurship in Education (NCEE) has been established to foster entrepreneurship in UK Higher Education. It aims to 'Support Higher Education to build its entrepreneurial future' and asserts that it 'has been integral in the development of the entrepreneurial university concept through the flagship Entrepreneurial University Leaders' programme'.

The UK QAA has responded to the call for more and improved learning and teaching in entrepreneurship through the publication of a guide for UK Higher Education providers (September 2012)—'Enterprise and Entrepreneurship Education: Guidance for UK higher education providers' (QAA 2012). The guide is essentially for first-cycle education but is helpful for second-cycle programmes. It refers to the guidance for third cycle (doctoral) published by Vitae: The Enterprise Lens on the Researcher Development Framework (2010) which provides "an overview of the key knowledge, behaviours and attributes typically developed by researchers that can be acquired through, or used in, enterprise activities", reinforcing the message that entrepreneurial competences should be developed in all levels of Higher Education. (Vitae 2010).

The QAA Guidance states that "The call for a greater emphasis on enterprise and entrepreneurship education is compelling. Driven by a need for flexibility and adaptability, the labour market requires graduates with enhanced skills who can think on their feet and be innovative in a global economic environment. There is an acknowledged need, as well as a *political imperative* (my bold and italics), for an infrastructure that supports and enhances enterprise development across the curriculum". This assertion is reminiscent of the views expressed in the

(continued)

Vignette 14.2 (continued)

OECD and EU documents reviewed earlier. The guide distinguishes between enterprise education, entrepreneurship education and entrepreneurial effectiveness stressing that “Enterprise and entrepreneurship are transdisciplinary with a strong connection to issues of employability, innovation, knowledge transfer, and commercialisation and intellectual property”. The document provides a thoughtful review and guidance for institutions and educators, distinguishing between ‘learning ‘for’ and learning ‘about’ and providing insights into intended outcomes under the headings—‘Entrepreneurship behaviours, attributes and skills and ‘developing entrepreneurial effectiveness’, all concerned with understanding and doing rather than knowledge acquisition. This is particularly evident in the section on assessment. The guidance is excellent at a general level and is intended to be applicable in all subjects but there may be a need for it to be translated into more directed guidance for curriculum embedding in specific subjects ranging from molecular biology to the study of literature.

cess. Business schools again have been at the forefront and in some areas of science and engineering, there are good success stories but engagement with business and enterprise simply does not permeate the humanities and social sciences. Indeed, the attitudes of both learners and teachers may be an impediment in this field. Since c.46% of all EU students are in the humanities and social sciences, if it is true that embedded entrepreneurial education is essential for economic growth, then more case studies of effective employer collaboration in all cycles in the humanities and social sciences would be helpful.

The Erasmus+ programme provides a vehicle through student work placements for the development of relations with employers and the development of entrepreneurial competences but as suggested earlier, although the number of students participating continues to grow there are serious policy, monitoring and curriculum integration issues which suggest that the full potential of the placements is not being realised. This is certainly an area for significant further development with a more explicit reference to entrepreneurial competences as an intended outcome from placements.

Future Research and Policy Implications

This brief survey seeks to indicate that the primary interest for entrepreneurship education continues to come from outside the Higher Education sector in Europe and that the sector is, in large part, in a reactive rather than a leading mode. This is not to say that there are not faculties/schools/departments in universities which are leading in the field but these tend to be associated with business schools. Governments appreciate that increasing participation in ter-

tiary education is essential for economic growth but they and the business community manifest their concern that their investment is not producing the results which they require in terms of economic growth and hence focus on entrepreneurship education as a vehicle to realise their economic aspirations.

The entrepreneurship theme is an illustration of how universities are subject to cumulative pressure to become more vocational and to concentrate on graduate employability as the primary indicator of the quality of the general education which they provide. Within the EU, the exhortations of Ministers and Bologna communiqués seem to have had limited impact on Higher Education and there does not seem to be the same level of demand from students for education in entrepreneurship, which makes it difficult to assess whether more embedded entrepreneurial education would produce the dramatic stimulus to economic growth which proponents contend. This is clearly a matter for more research and monitoring to provide reliable evidence. A number of questions for further research and possible implications are discussed later.

Is the entrepreneurial university essential to generate graduates who are entrepreneurial? Current literature on 'internationalisation' suggests that to be successful, it must engage the whole institution and all its activities. Does the same apply to entrepreneurial education or is it possible that success depends much more on the individual department. If, as the proponents argue, more pervasive entrepreneurial learning is the key to success for the individual and society, then this question needs to be addressed. It will have implications for the governance and management of the university and its relations with wider society.

Can the entrepreneurial university be reconciled with the Newman Idea of a University or the Humboldt philosophy or is utilitarianism in Higher Education the only game in town? While it is well understood that universities have an extensive mission to learning and research, the philosophical context in which this takes place is of fundamental importance. If, as seems to be increasingly the case, the objectives, curriculum and desired impact of the learning and research are dictated and closely regulated by external bodies, then can universities be effectively autonomous or do they become simply governmental agencies. In what ways can academic staff be independent and exercise genuine academic freedom if they are simply expected to deliver predetermined outcomes. Is there still a place for the pursuit of knowledge for its own sake? How can the plethora of external policy assertions relating to what is learnt, taught and researched be tempered by a respect for real academic freedom? Or is it the case that universities are by nature such conservative institutions that change has to be instigated from outside. This research would need to examine whether entrepreneurship has superseded other values in education and how it relates to

cultural values, sustainability and lifelong learning. A key question is whether the values of entrepreneurship are compatible with social cohesion?

The chapter has focused on formal, structured learning, but it is frequently asserted that entrepreneurship is acquired through experience. If, in the future, this is complemented by more formal learning (in entrepreneurship) in each cycle at a university, will there be a need and a demand for more structured formal lifelong learning (in entrepreneurship) through HEIs? How will this be provided and validated? This bears on the development of much closer relations between the employment world, alumni and the continuing development and experience of the academic staff.

Conclusion

The chapter has sought to demonstrate that the insistence on the urgency for more pervasive entrepreneurial education in Europe is endorsed by all the international institutions and, through the EHEA, the governments of 48 countries. It has indicated that universities are not leading this movement and indeed judging from comments in European Commission documents may not be as responsive to the goading in the proclamations as might have been anticipated. It is not clear whether this is because of reluctance or a lack of resource or both. Nor does it seem that European students and their families are echoing the call for more entrepreneurial formation. If they were then change would follow swiftly. This may indicate a serious disjunction between the rhetoric of international bodies and governments and the perceptions of citizens and the reality of the learning and teaching contexts in universities. Alternatively, it could simply be a time-lag syndrome and tomorrow we will wake up to a new entrepreneurial era as universities implement new curricula and graduates with entrepreneurial knowledge, understanding, and (possibly) ability, engage in the labour market. If this is the case, then it will prove or disprove the extravagant claims for transformation of the economy.

In practice, neither is likely since there is no panacea for achieving the change which is so earnestly desired. Entrepreneurial education will develop and be more widely experienced but it will also take its place in the glossary of international educational phrases with: 'sustainable development', 'knowledge economy', 'employability', 'competiveness', 'the digital economy and digital skills and competences', 'transferable skills' and 'innovation and creativity'—all of which have vogue periods and are each a manifestation of the search for keys to meeting the needs of society as well as the expectations of political leaders. In their different ways, it could be argued that each of these phrases

represents an aspect of entrepreneurship but that illustrates the challenge of articulating a common shared understanding of entrepreneurial education.

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International Law Perspective on Entrepreneurship

Alex Fomcenco and Sebastiano Garufi

Introduction

The discipline of law covers numerous legal areas that, respectively, are labeled with their own titles, for example, the law of obligations, family law, property law, corporate law, and so on. The law in Western society that is expected to be followed and abided by is referred to as “valid law”. The law is neither subject to individual reflections with respect to its equity, righteousness, or adequacy nor, consequently, individual opinion on whether it should be complied with or not; it is subject to mandatory compliance. The law is enacted by the people and can be changed by the people, following the basic principles of democracy. Valid law, for corporate purposes, should not be considered from a (limited) national perspective only, but also from an international perspective; thus, consideration is also warranted of the globalization of the market, harmonization of corporate law in different jurisdictions in the European Union (EU), competition between states on the creation of favorable legislative schemes, and how all these factors affect business undertakings and entrepreneurial initiatives. The world economy has developed faster than the ability of international law to keep up, and legislators have been unable to provide adequate regulation to secure sound and smooth expansion. The fact that

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expansion is still in progress, and that legislation is still lagging behind, leads to piecemeal solutions to randomly arising problems.

The purpose of this chapter is to point out that entrepreneurship, as a concept, is not addressed in international law. That is not to say that the issues (at least some of them) that entrepreneurs face in their transnational enterprises are not addressed. This observation is intended to help the reader understand where entrepreneurship stands in light of international law and to welcome and encourage further research and contribution toward shaping and strengthening the study and practice of entrepreneurship.

Law, Sovereignty, and Territory

International Law and State Sovereignty

In general terms, international law can be defined as the law of the “community of states” (Rieu-Clarke 2005, 12). It is a bundle of rules formed by the states to rule over the states. In this sense, international law generally creates rights for and obligations upon states. The raise of the “community of states”, and the beginning of the international relations in modern terms, dates to the Peace Treaty of Westphalia (1648), which is considered as the creator of nation-states in Europe (Chatterjee 2010, 15). The treaty encouraged the creation of nation-states by recognizing their territorial sovereignty, and ultimately led to the institutionalization of diplomacy and armies. In this perspective, the treaty is generally considered as the origin of modern international law itself.

The main characteristic of modern international law is that, not only does it govern relationships between states but it also has a direct impact on, and tends to govern relationships occurring between, people subject to the jurisdiction of these states, despite being mainly addressed to the state level (Lauterpacht 1970, 9). Whereas in the past, these internal relationships were governed by the domestic rules of a given state, and international provisions mainly dealt with external matters (such as diplomatic immunities, alliances, wars, and so on); modern international law also regulates domestic economic matters, trade, and social relationships (Pisillo-Mazzeschi 2014, 90).

The content of the rules of modern international law, which creates rights and obligations impinging upon the states, tends to consist of a set of provisions aimed at limiting the use of force by the states, not only toward other states (so-called “international” force, which typically means war), but also

toward individuals, legal entities, and their assets (so-called “internal” force). This latter form of force should be considered as the state’s governmental power, sovereignty, or, more simply, “jurisdiction”. It is the power of a state exerted over its subjects and their assets, which also implies the use of material coercive powers (Conforti 1993, 126).

One of the main forms of limitation of such an internal force that is imposed by international law is the rule over territorial sovereignty as regulated by international customary law. Territorial sovereignty was conceived in the past as a form of ownership pertaining to the state (historically, a monarch) over a certain territory, and the coercive powers exerted over individuals were inseparably linked to the availability of any territory (Kaczorowska 2015, 257). The power of the state over people and things was nothing but the corollary of the state’s power over a certain territory.

Although in political and philosophical thought different definitions of the state have been formulated, the state is normally considered as a unitary entity, which owns all legitimate social powers and whose decisions are imposed on all its subjects. These definitions are intended to pursue the specific concerns of each state; according to the *realist* approach to international relations, the primary concern of all states is the survival of the state itself, which can be achieved alternatively through the improvement of internal security or through the aggression toward other states. These ideas originated from authors like Thucydides, Machiavelli, and Hobbes and found realization in particular in Bismarck’s *Realpolitik* during the nineteenth century. The modern state is defined in terms of its territory, namely that physical geographic area over which each state has the monopoly on legitimate coercion (Kelsen 1952, 216). Such coercive power, normally exercised by public authorities, represents the sovereignty of the state. The scope of the exercise of such sovereign powers is referred to by the term “jurisdiction”. Jurisdiction is therefore fundamentally territorial; it is the substance of the sovereignty, and it is exercised by means of laws directed upon subjects through defined, abstract, and fictitious categories (Bedjaoui 1991, 309).

According to customary international law, each state reigns in a supreme and unrestricted fashion over the territory subject to its jurisdiction; a given territory represents the area within which the coercive powers of a sovereign state can be exerted. Correlatively, each state is obliged under international law to not exert its own coercive powers (its jurisdiction) in the territory of another state (Ryngaert 2015, 85). A typical example of the violation of territorial sovereignty is when a foreign public body is physically present in the territory of another state, without being authorized to do so. In general terms, the territorial jurisdiction of a state is not only exclusive, relative to that of

other states, but it is also independent in its forms, the modalities of its exercise, and in its content. In other words, as a principle, each state is free to do in its own territory what it wishes (namely, to dispose of natural resources, follow certain principles of government, create policies, and so on).

Modern international law has indeed narrowed the traditional concept of the absolute jurisdiction of the state. All modern international provisions impose some limits on the coercive powers of a given government, even within its own territory (Clapham 2012, 206). Although each state can, ostensibly, freely operate within its territory, modern international treaties have been imposing limitations on these powers. By entering into an international (bilateral or multilateral) agreement, the contracting states accept and voluntarily bind themselves to observe certain provisions that limit their own sovereignty. The most recent examples include those rules regulating the status of foreigners and refugees, imposing a certain treatment of individuals, the protection of human rights, the prohibition on the use of excessive force, and so on (Goldsmith and Posner 2005, 108). With reference to these limitations, the 1951 Refugee Convention represents a good example. The states that have ratified this treaty are obliged, in accordance with its terms, to protect refugees who are on their territory. This protection concurrently consists of providing certain assistance to the refugees and in the limitation of the coercive powers of the contracting states, for example, in respect to expulsion and repatriation of these individuals.

“Economic” International Law: Limits to a State’s Sovereignty

Most limits imposed on states’ sovereignty under international law are in the area of states’ economic affairs. “Economic” regulation is perhaps one of the traditional state domains jealously reserved to state sovereignty. But, in fact, it is excluded more than other areas from regulation under customary law, being, rather, mainly governed by international treaties. In their international relations, states tend to declare programmatic principles describing how their relationships should be governed under international treaties. On the grounds of these principles, a network of bilateral and multilateral conventions has been developed, aiming at cooperation and development and limiting the freedom of states to govern their own economic affairs as they wish.

Besides the agreements on cooperation and development, the economic sovereignty of states can also be limited by agreements negotiated within the World Trade Organization (WTO) and other regional organizations aimed at

liberalizing international trade and removing obstacles to the free movements of goods, services, and capital. In this perspective, the treaties of the EU represent a good example. Through the treaties, the EU member states are encapsulated into a single market, thereby strongly increasing their economic interrelation. To that purpose, the effect of the treaties constitutes imposition of limitations to the sovereign powers of the member states in all the areas subjected to the competence of the European institutions (e.g., the establishment of the non-discriminatory rules necessary for the proper functioning of the internal market, monetary policy for the euro-member states, conservation of marine biological resources under the common fisheries policy, common commercial policy, and so on). A similar path toward economic integration based on international treaties was followed by many other countries. Some of them entered into bilateral agreements. Some others chose the way of multilateral negotiations, giving birth, for example, to international organizations, such as ASEAN and CARICOM, which improved the economic interdependence of their members through, respectively, the institution of a free trade area (AFTA) or the implementation of a common market (CSME).

These recent developments clearly show the growing interdependence of states at the economic level. Other than that, state sovereignty does not face substantial limits imposed by international law, other than those rules on the treatment of foreigners (e.g., the non-discrimination principle, often contained in most treaties). Consequently, a state should not interfere in the essential economic interests of other states, unless the object of such interference, via international forums, deserves a higher protection than afforded by the national interests of the state concerned. This might be true in the case of environmental protection, where limits to a state's freedom to exploit natural resources (or the regulation of such exploitation) become relevant, with a view to reducing damages caused by polluting activities or those that may irreparably destroy resources.

The Exercise of State Sovereignty: Domestic and International Laws

As the law is the main tool utilized by the state to exercise its sovereignty, and sovereignty is exercised over a certain territory, the laws of a state generally tend to regulate anything having a specific application within that territory. The laws are, in fact, the most typical expression of the domain that is the

preserve of the state, but they also regulate the exercise of the state's coercive powers (Spagnoli 2003, 118). In an international context, where the global economic relationships between states are of great importance, a specific case considered as falling within the jurisdiction of a given state may well have some relevant connecting factors with the territory and the jurisdiction of one or more other states. In this respect, the laws of a certain state regulating international business must consist of:

1. National rules (the state's domestic law) governing a case having some external factors in respect to its own jurisdiction/territory;
2. Domestic formal rules establishing connecting personal and real factors of a specific case;
3. Domestic substantial rules governing the treatment of that case;
4. Procedural rules established by domestic law governing the protection of a right recognized under the substantial rules or imposing the observance of an obligation imposed by the substantial rules. This branch of law consists of an internal set of provisions enacted under domestic constitutional law governing cases with external factors. Such law is binding for the state enacting it and for the people subject to its authority, but not for other states; and
5. Rules categorized under the area of international law, consisting of:
 - Customary law; and
 - International treaties.

As mentioned earlier, international economic relationships between states are hardly ever regulated under international customary law, as states accept limitations upon their own sovereignty only by agreeing thereto through international conventions. In this respect, and having regard to international treaties, it should be noted that there exist:

1. Formal international rules agreed upon by states establishing formal connecting factors with a given state (which is then allowed to regulate a specific case under its own domestic legislation);
2. Substantial international rules providing for the substantial treatment of a specific cross-border case;
3. International rules of different kinds establishing various mutual principles, such as non-discrimination, exchange of information, and so on;
4. Procedural international rules governing interpretation, mutually agreed procedures, and resolution of conflicts.

Conventionally, a domestic legal system creates elements with relevance under its laws, which establishes a special relationship between the state in question and the individuals who are subject to its jurisdiction. For example, the concept of citizenship, nationality, residence, legal domicile, legal identity, and so on, are some of the many legal elements created and employed by the state to identify and bind its subjects, placing them under its own coercive powers (jurisdiction).

A multinational company (an enterprise carrying out business activities in more than one state) is thus exposed to the sovereignty of several states. A company registered in one state by a simple compliance with that state's requirements for establishment can conduct all its business activities in other states. However, the relevance of the state of establishment will not be underestimated by the other states. The connection to the state of establishment is undeniably important, as this state exercises its jurisdictional powers over the said company by maintaining the existential link to that company, that is, its right to exist by according it with legal personality. As expressed in the *Daily Mail Case 81/87*, companies are creatures of national law and exist only by virtue of the national legislation which determines their incorporation and functioning.

Similarly, "corporate entity", "trust", "partnership", and so on, are only some of the copious examples of legal entities, or legal categories as they are sometimes called, created by states to assert their jurisdiction. The state's power to regulate private and corporate activities and transactions in the world market is thus a process of creation, interpretation, and regulation of these legal categories. The most typical abstract category in economic relations is money. Monetary relationships are the expression, in abstract legal terms, of abstract economic relations (Desan 2014, 23). Legal forms can be used to redefine such relationships, to relocate where and by whom payments are made, or the type of monetary assets, such as bank accounts, stocks, or other financial instruments, that are held.

At the international level, a corollary of this potentially unlimited power of the state is the principle of sovereign equality of states. The international system consists of an aggregation of sovereign states, each of which has exclusive powers within its own territory.

International investment, for example, inevitably entails involvement with more than one state. When economic and social relations transcend the boundaries of one state, claims to the exercise of powers and functions by different countries intersect and overlap. Cross-border investment clearly faces the problem of the concurrent and sometimes conflicting claims by states, as international transactions or activities are normally exposed to the regulatory

requirements of the different states involved, each of which may have the power to enforce its jurisdiction upon the person or the asset involved. Quite often, international investors try to benefit from the opposite phenomenon, consisting of exploiting the available legal entities offered by states to their own advantage, in order not to be exposed to the regulatory requirements of some other state involved (Henderson 2010, 39). A deep knowledge of states' laws can, in fact, allow multinational firms to define their business strategy in such a way that they can choose their degree of exposure to the jurisdiction of specific states.

With the emergence of the modern liberal state and the growth of global markets and digital economy, investors have developed substantial techniques aimed at exploiting the disjuncture of the legal system to their own benefit (Okoye 2016, 186). This phenomenon is partly the result of the lawmaking process of states, which does not evolve as quickly as the new models of doing business. For example, an investor can easily incorporate a company in one state, manage it from another state, and do business in a third state. This is evidently displayed in the *Centros Case C-212/97* where the plaintiffs were exercising their treaty-secured right of establishment, while the national authorities being under the obligation of honoring that right lacked in essential understanding of the right leading to the violation of the same. By exploiting the overlapping of legally fictitious entities and concepts elaborated by states, one can artificially manipulate them in order to route global flows of income at one's convenience and minimize one's exposure to the regulation of a given state. Think, for example, of the use of artificial legal persons acting as mere intermediaries between the beneficial owner and the source of profit.

Entrepreneurship in a Global Market

The Commercialization of State Sovereignty

The development of international trade, which characterizes the modern economy, depends on the differences between countries engaged in it. Nations, like individuals, can benefit from their differences by creating an arrangement in which each specializes in the economic activities it does relatively well. Furthermore, countries trade in order to achieve economies of scale in production. Economic theories which demonstrate that if each country produces only a limited range of goods, it can do so on a larger scale, and therefore more efficiently, than if it tried to be self-sufficient and produce everything domestic consumers require (Salvatore 2016, 29).

Differences in possibilities and production costs offer countries the opportunity of a mutually beneficial rearrangement of the division of labor of world production. International trade allows an increase in the world output, which, yet again, permits each participating country to specialize in producing the goods it can produce with a comparative advantage. A country has a comparative advantage in producing certain goods if the production costs are lower in that country than they are in other countries. This school of thought was developed by the British economist David Ricardo, who introduced the concept of comparative advantage in the early nineteenth century (Salvatore 2016, 53).

From a legal perspective, it should be highlighted that any entrepreneur (a sole trader, a sole proprietor, or a company) carrying out any business activity across national borders has to face the system of rules of a foreign jurisdiction, which may be different from those existing in the home country. Such differences may originate from a diverging perception of the host state's legislative authorities' ethical, financial, or other considerations, which are reflected in that state's legislation.

The application of two, or even more, complex systems of rules to the same entrepreneur may influence their strategies, which are, of course, aimed at profit maximization, the reason why the majority of business activities are carried out. A company doing business in State A will pursue the benefits of the advantages provided by that state while at the same time avoiding possible disadvantages in respect to the same matters in State B. Such advantages may relate to, for example, a lack of bureaucracy, political stability, easy access to incorporation, lax regulations regarding the sale of certain products or provision of certain services, a lower degree of governmental controls, better protection of investments and intellectual property rights, efficiency of the judicial system, access to credit, lax labor laws, lower taxation, and so on.

This phenomenon is particularly evident in the area of international taxation, as taxation is one of the most typical tools utilized by any state for the purposes of exercising its jurisdiction over investors and entrepreneurs having connecting factors of a personal or a corporate nature within its territory.

By facing a growing demand for more permissive regulations, and by offering a more investment-friendly environment, a number of states (typically small and fragile economies) started offering zero or almost-zero regulation business environments in order to attract foreign businesses to their territories. They offer investors protection from regulation and taxation imposed by their home countries without the need of any physical presence. Since a sovereign state can legitimately exercise its powers to set forth a more competitive and attractive regulatory environment, in comparison to other countries, entrepreneurs tend to prefer these more convenient jurisdictions for incorporating a company or locating their business.

An explanation of this phenomenon can be viewed from the perspective of the so-called “Tiebout-type efficiency paradigm”. Writing about the competitive incorporation of American cities, Tiebout postulated that different jurisdictions provide individuals and firms with a bundle of public services and tax regulations (Tiebout 1956). He argued that individuals and firms are likely to manifest their choice of jurisdictions that offer desirable bundles of regulations by moving there, and are likely to move away from jurisdictions that offer less desirable bundles of regulations. Since municipal regulators want the business of these individuals and companies, the jurisdictions are compelled to compete with each other by offering the kind of regulations that the market wants. Such a “market” in bundles of regulations is likely to bring about optimal public service, as taxpayers adapt to the economic system.

This theory represents the starting point of those individuals and firms that are considering countries in which to engage in cross-national enterprises being subject to a “commercialization of sovereignty”. It has been argued that the motive of these states is to draw rent surpluses from the income that otherwise would accrue to larger states (Hampton 1996). Another author considered this commercialization of sovereignty as an abuse of the rules and codes of sovereignty (Palan 2002). Others maintain that it is a perfectly legitimate strategy, but that it can lead to abuses, as it encourages tax evasion, money laundering, and other criminal activities (Hines and Rice 1994).

The emergence of these jurisdictions developed a concept best defined as the “minimization industry”. It aims at mitigating the burdens imposed in other jurisdictions. Such jurisdictions flourish also due to intensification of regulations, mainly in respect to transparency and taxation, practiced by advanced industrial countries, as well as the entrepreneurs’ perception of the severity of tax burdens and the authorities’ intervention in the conduct of their businesses.

While states govern their national economies and national markets by means of the implementation of (appropriate) rules and through public institutions, multinational enterprises participating in overlapping (international) markets deselect sovereign states that are unable to set forth a system of rules that accommodate smooth participation in the global market. In other words, the world economy has developed more quickly than institutions of national law, which somehow have been unable to regulate such an expansion.

In this very sense, countries implementing such a form of commercialization of state sovereignty can be characterized as “renegade states”. According to this definition, which was developed with specific reference to so-called “tax havens” (Eden and Kurdrle 2005, 107), “a renegade state is a state whose practices are salient to an international regime but whose behavior does not

comply with the prescriptive norms and practices of the set of implicit or explicit principles, norms, rules, and procedures around which the expectations upon most industrialized states, at the international level, converge". However, there may be other reasons for this peculiar renegade behavior:

- a) a state may believe that the norms, rules, and procedures which are shared by most states are unjust or unfair and should not be followed,
- b) a state may have domestic or foreign policy interests that conflict with the established norms and rules; thus, it becomes "renegade" simply because of its inability to dictate international standards that conform to its interests,
- c) a state may take the position that the consequences of defying the established regime's norms and practices are negligible or worth less than the advantages of "cheating".

The emergence of such "renegade states" has also triggered a significant transformation of the international order and has been an important catalyst in the transformation of the current international system. When domestic systems and traditional legal frameworks prove to be inadequate to handle the international activities of multinational enterprises, interdependence, and cooperation among states becomes necessary. Due to the cross-border mobility of factors of production, states need to assist each other to ensure enforcement of their law and their claims. Consequently, the states' jurisdiction becomes interdependent on the availability of the effective enforcement measures and instruments of other states within their territories.

International Trade Blurs National Borders

The internationalization of trade and investments, the international fragmentation of production by companies, and the decline of tariffs and other barriers to international trade have been playing a key role in the creation of "safe spaces" where multinational entrepreneurs seek "shelter". The proliferation and the growth of favorable jurisdictions, from the territories of which business activities can be conducted more easily than from the country of origin, is a consequence of the increasing sophistication and willingness of traditional capital to take advantage of the different sets of rules offered by various states.

From the 1970s, due to the massive and rising taxation and regulations in countries of origin, and taking advantage of the development of telecommunication, as well as of the expanding frontiers of tradable goods (which also

allowed non-tradable goods to become tradable), multinational enterprises began relocating their factors of production (and therefore the source of their profits) from some industrialized countries to others. The need to conciliate these two exigencies has led to three solutions. The *first*, adopted by the richest countries, consisted of enacting domestic legislation that regulated foreign businesses and that recognized contracts signed in a country other than the state of origin as well as legislative, executive, or judiciary decisions issued by foreign authorities. The *second* solution entailed the proliferation of international agreements between states with the view to harmonizing legislation on foreign investments (Sassen 1996). The main purpose of these treaties was to grant investors (and their assets) originating from one contracting state the same level of protection as enjoyed by investors (and their assets) in another contracting state. Finally, the *third* solution was to let entrepreneurs autonomously regulate issues deriving from international trade (similar to the “*lex mercatoria*” of the Middle Ages), when governments were not able to reach any agreement on the applicable rules. When domestic laws conflict with each other at the expense of international exchanges, it seemed appropriate to create a space where these laws do not apply or apply less strictly.

The growth of over-regulation and over-taxation in the post-war years, on the one hand, and the increasing demand for permissive regulations, on the other hand, offered a number of microstates the opportunity to offer zero or near-zero regulations in order to thereby attract business to their territories (Kudrle and Eden 2003). The introduction of a more permissive regulatory environment by such countries raised the gaps and the differences between national systems, which led to perverse competition in regulatory laxity and to the gravitation by some institutions to the least regulated centers (Johns 1983). Softer regulation, reduced intervention by the state, and other legal advantages can be specifically designed to attract intermediate holding companies, multinational investors, and financial business and thus boost the economy of the country.

Increased movements of goods and services across national frontiers, reduced transportation and communication costs, improvements in technologies, and great mobility of capital and corporate activities are only a few of the factors resulting from globalization. As investors are very sensitive to differences in effective burdens imposed by regulation, increasing volumes of cross-border investment resulted in the conspicuous production of foreign income flowing toward more permissive jurisdictions.

The gradual reduction or elimination of tariffs and trade barriers, the growth of international trade, and the progressive removal of restrictions on the exportation and importation of financial capital made jurisdictional boundaries

more porous. Companies now have the chance to easily cross national borders and to carry out business activities in several countries, exploiting the comparative advantages of different locations. As globalization facilitated the relocation of corporate activity from one country to another, enterprises have the opportunity to maximize their return on investment by easily shifting assets toward more favorable jurisdictions.

The more permissive legislation existing in some countries than that enacted by other states is therefore a by-product of the complex system of relationships taking place in the international context. On the one hand, it can be considered as a response by entrepreneurs to the increase in states' regulation during the post-war period, since, the heavier the regulations, the keener enterprises are to avoid them by seeking a shelter from them. On the other hand, in the lack of an internationally shared set of rules, there is a high risk of the erosion of states' sovereignty, that is, the ability of states to steer and control economic and social activities within their territorial boundaries.

On Competition Between States to Enable Entrepreneurship

Creation of Rules In-line with Investors' Expectations

Current international business regulations reflect some sort of competition between states. Some of them offer foreign entrepreneurs a set of rules that are more favorable than those existing in their country of origin and thus appear to be more in-line with the expectations of these entrepreneurs. From a strictly economic perspective, such competition may prove to be beneficial as it may have the potential of establishing a sound level of regulation at the point where the demand and the supply curves of legislation intersect. In fact, states tend to imitate each other's efforts in creating corresponding sets of rules (Fomcenco 2014), pursuing analogous objectives or similar legal vehicles that follow the same patterns of business conduct (namely, legal entities such as special purpose vehicles, cooperatives, public benefit corporations, and so on). Although the specific features of national rules can vary (e.g., diverging requirements on minimum capital, numbers of shareholders, forms of circulation of securities, level of allowed capitalization, and so on), international entrepreneurs eye potentially beneficial opportunities in speculating in these legislative variations (Fomcenco 2013, 2014).

This form of competition between states in the creation of rules more in-line with investors' and entrepreneurs' expectations exists due to governments' concerns that jobs and investment may cross borders and be directed toward more attractive legal environments that are facilitated by other states. In other words, states compete with each other to offer the most favorable entrepreneurial and investment opportunities. Broadly speaking, economists celebrate competition for its beneficial effects (Bergh and Höijer 2008), as opposed to what monopolies offer. Applying the same reasoning to legislation, one can assert that, in a similar fashion to how consumers benefit when manufacturers and service providers compete for their business, entrepreneurs and investors benefit when states compete on supplying the most favorable legislation. Like a monopolist, a state has no inherent interest in competing to be efficient. It may even claim a general reduction of national welfare should the participation in legislative competition occur, thus justifying enacting legislation that limits outflow of investment from its jurisdiction. On the contrary, a state that welcomes the international business environment within its jurisdiction, permitting the free flow of goods, services, entrepreneurial undertakings, and so on, is motivated to produce necessary and satisfactory legislation as seen from the perspective of entrepreneurs and investors, which stimulates the creation of wiser and more beneficial policies.

The current global legislative context is characterized by a strong interdependence of various national legal systems and a clear similarity between the legal entities (corporate vehicles) that these legal systems offer. Often, a state observes the experiences of other states it compares itself to and, when the national political support allows it, moves toward the facilitation of similar legal environments that are created in accordance with the entrepreneurs' and investors' preferences and that appear to produce beneficial effects for the model state's economy and policies. This form of competition in the provision of legislation that honors the desires of investors and entrepreneurs tends to stop only when other political priorities appear to weigh more heavily than the need to attract investment and entrepreneurial enterprises and when the enactment of increasingly lax legislation is perceived to be harmful and/or contrary to public policy. Such situations may be addressed by states through the conclusion of international agreements that balance the adversarial, shared, and reciprocal interests of these jurisdictions and simultaneously promote the interests of investors and entrepreneurs.

The Lack of Harmonized International Corporate Law

In spite of far-reaching globalization, with close interconnection between the financial markets and markets for goods and services in various jurisdictions, the world has not gone so far as to create a common international set of rules, (an international corporate law, if you like) in order to address the myriad of issues that entrepreneurs from different jurisdictions face on a daily basis.

Those issues, however, are not completely ignored. Often, attempts are made to address these issues through bilateral agreements, treaties, and conventions: Bilateral Investment Treaties for protection of investments, IP Treaties, Double Taxation agreements, and the United Nations Convention on Contracts for the International Sale of Goods are just some examples.

Although any legislative initiative driven by a desire to ease an international entrepreneur's hurdles in connection with their activities and undertakings in an interjurisdictional marketplace is warmly welcomed, it must be remembered that, as the Holy Bible stated, each and every one of them is merely "a piece of cloth from a new garment sewn on an old one" (Luke 5:36). One of the major difficulties that this approach imposes is found in the fact that international bilateral or even multilateral agreements that governments of different states enter into do not become law prior to being put through the due legislative process of each of the participating states, respectively. Not only can this process be time-consuming, which in itself is not accommodating from an entrepreneur's point of view, but also the outcome can vary depending on the jurisdiction. An agreement will have certain common objectives that the undersigning parties agree upon; however, "how" these objectives are reached, often times, is left to the discretion of the national legislative bodies. It is not uncommon that different approaches are utilized, hence imposing different jurisdiction-dependent different conditions, procedures, and so on, which potentially can lead to discrepancy in the outcome.

Furthermore, and quite unfortunately, we sometimes observe how the governments, in executing the laws passed in accordance with the international agreements, breach the very principles that they have agreed to. For example, a whole line of cases has arisen in the wake of the EU member states' attempts to protect their respective treasuries against corporate tax deductions, exit taxes, and so on, thus breaching the principles of double taxation legislative acts and conventions. Moreover, should a dispute, arising from the matrix of an interjurisdictional corporate relationship, be subject to litigation, its outcome may well depend on the forum chosen by the parties or, where appropriate, in the course of, for example, Regulation (EC) No 593/2008 of The European

Parliament and of the Council of 17 June 2008 on the Law Applicable to Contractual Obligations (the so-called “Rome I Regulation”).

Incoherence in judicial decisions, which is jurisdiction-dependent, is unfortunate and undermines the very foundation of the desired equality of the law, which touches on the very question of justice.

An entrepreneur with interjurisdictional activities and undertakings is forced to navigate through a “jungle” of rules, regulations, conditions, and procedures, which, ironically, are exacerbated by the very element of “inter-jurisdictionality”. Creation of a worldwide common corporate law, which would be adopted as valid law across jurisdictions, can, at this point in time, be regarded as pure legal “science-fiction”. However, the harmonization of national corporate laws, in spite of some of its inherited weaknesses, is already a reality, as seen in the EU and European Economic Area (EEA) through the adoption of Company Law Directives and Regulations with relevance to corporate activities.

The (Lack of) Competence of the European Union in Respect to the Member States’ National Corporate Laws

The US is often perceived as a beacon of freedom and innovation; anything seems to be possible there, including in corporate terms. It is a strong federal state with substantial federal legislation on a wide array of areas of law. However, when it comes to corporate law, federal legislation simply does not exist. Hence, there are 50 different sets of corporate laws in the US, corresponding to the number of states in the Union. The natural question arises: “How do they facilitate corporate activities of entrepreneurs across the borders of the various states”? The following are the various ways American entrepreneurs may respond to the seeming complexity of the legislative environment. *Free choice of jurisdiction*: an American entrepreneur can freely choose the state under the laws of which they wish to register their business. Oftentimes, the State of Delaware is chosen due to its accommodating corporate regime. *Unimpeded options of selling goods and providing services in all the US states*: regardless of where in the US a business is registered, it can freely conduct its corporate activities anywhere else within the US borders. *Moving from one state to another*: on this matter, however, the US does not seem to have developed further than what is already a reality in the EU. In fact, the EU has been able to progress farther than the US in this matter as we demonstrate in the following. With no federal harmonization of corporate laws in the various US states, the task rests on the shoulders of the individual

state legislatures. When reading various corporate statutes, a remarkable resemblance amongst provisions dealing with similar issues cannot go unnoticed. The state legislatures look to each other for inspiration and draw on knowledge from the powerful American Bar Association. This is primarily how American corporate laws remain comparable.

In Canada, a federal state, in which the powers of the federal government are constitutionally more restricted in comparison to its neighbor to the south, and where the provinces have wider discretion of self-governance, two parallel sets of corporate laws are found: a set of federal corporate laws and a set of corporate laws for each province and territory. Similarly, comparable to the situation in the US, a Canadian entrepreneur enjoys the freedom of choice of jurisdiction when registering a business under a provincial law. But, as opposed to the US, the Canadian entrepreneur, after certain conditions are fulfilled, can also choose to register under the federal corporate legislation, hence acquiring supra-provincial capacities. Furthermore, and similarly to the US, unimpeded access to the goods and services markets across provincial borders is granted, regardless of the provincial or federal registration.

The significant difference, which is immediately observed when comparing American and Canadian corporations, is the ability to move across intra-federal borders. Canadian federal corporations can move from one province to another without any difficulties due to their supra-provincial capacities. But also, provincially registered corporations do not experience procedural difficulties in that respect when they comply with a few simple conditions (VanDuzer 2009). Admitting that no official harmonization programs are utilized to promote coherence in the various Canadian corporate laws, they nonetheless appear to be quite comparable due to the will of the legislatures, which look to each other for inspiration.

Although, the EU is not comprised of federal states in the same sense as the US and Canada, the institution bears a significant resemblance to these nations and their respective forms of legal constitution. One of the cornerstones of the EU is the establishment and the promotion of the proper functioning of the internal market as per Article 26 of the Treaty on the Functioning of the European Union. The legislative bodies of the EU have treaty-based authority to enact legislation that serves the purpose of approximation of the relevant national laws of the member states, as per Article 114 and 115 TFEU, in the form of directives and regulations. Following these legal procedural steps, the EU has adopted the so-called EU Company Law, which consists of a wide array of legal acts with relevance to corporate activities (Fomcenco and Werlauff 2014). Despite the official name, a detailed study of these legal acts quickly proves that the EU does not have a single set of corporate rules that is

applicable in all the member states. Rather, there are 28 individual sets of corporate laws that are heavily influenced by the directions envisioned by the Council of the European Union. In other words, through EU Company Law Directives, the national corporate regimes are guided toward the supranationally envisioned goals of harmonization.

But the EU law has gone even farther than that. Through the enactment of regulations, which, contrary to directives, have general and direct application, and are binding upon all member states in their entirety, the uniformity of certain areas of national corporate laws is achieved. This, furthermore, translates into the recognition of the supremacy of the EU law over domestic law in respect to the elements addressed through regulations. The national legislation must yield to EU law in respect to matters where national sovereignty is surrendered to the authority of the EU. These regulations concern a variety of legal entities: European Company (Council Regulation 2157/2001), European Cooperative Society (Council Regulation 1435/2003), European Economic Interest Grouping (Council Regulation 2137/85), and, in the future, also European Foundation (Proposal for a Council Regulation on the Statute for a European Foundation, COM/2012/035 final—2012/0022), and each and every one of these has the inherent potential to secure and promote the interests of internationally oriented entrepreneurs and investors within the EU. In instances where the national law is in conflict with the EU law, a national court, as displayed in the *Marleasing Case C-106/89* hearing, a case which falls within the scope of EU legislation, is required to interpret its national law in the light of the purpose and the wording of that legislation. In comparison, neither the US nor Canada have been able to do the same. However, the reality of the corporate world's organization in the EU shows that the utilization of these options is somewhat limited and entrepreneurs seem to be content with the use of nationally incorporated legal entities of various kinds. Further research into this area is required.

The Need of Further Research

In the earlier paragraphs, we have attempted to depict the current state of entrepreneurship from the legal perspective. It appears that entrepreneurship as a discipline is neglected in legal analysis. The source of national and international legislation alike seems to focus on corporate law, whereas tax related legislation remains under the domain of national legislative regimes. Both of these aspects are inseparably essential to any entrepreneurial undertakings; however, the research of how the evolvement of these regimes impacts entrepreneurial initiatives is missing.

To that end, we have discussed the attractive low-tax regimes that certain states offer; however, the reality shows that these offers are not accepted by all the enterprises that could take advantage of it. Why do these businesses choose to remain under the heavier tax regimes of their states of origin and what could these states do in order to promote the attractiveness of their jurisdictions?

Moreover, the once stranded and now again relaunched project of Common Consolidated Corporate Tax Base (CCCTB) is of interest for further research with respect to its impact on entrepreneurial initiatives within the EU. The purpose of CCCTB is to secure that companies operating across the EU internal borders no longer have to deal with 28 different sets of national rules when calculating their taxable profits. Consolidation will entail a ‘one-stop-shop’—the principal tax authority—where one of the companies of a group, that is, the principal taxpayer, would file a single tax return. Although the project focuses on collection and distribution of taxation revenue, it certainly will have an impact on entrepreneurial activities. But the research on that anticipated impact is much desired.

And finally, it must be kept in mind that the discipline of entrepreneurship interacts with a wide array of legal disciplines besides the already mentioned corporate law and tax law. The anti-trust law, the labor laws, contract laws are just some examples of the legal disciplines that are relevant to the study of entrepreneurship. Perhaps this is the very reason why entrepreneurship is not addressed in legal research; it simply involves so many different legal disciplines, that combined together they are hard to grasp. Additionally, one may think that because it functions (somewhat) alright as is, why bother? We submit that it is important to strengthen this research as understanding entrepreneurship from the legal perspective will inevitably promote predictability of the outcome of entrepreneurial undertakings, thus creating a more secure and anchored entrepreneurial environment. Predictability of legal consequences of any undertaking cf. the Theory of Prediction (Ross 1959) contributes to stability of any legal regime.

Conclusion

In this chapter, we note that, traditionally, the law is presumed to be closely connected to an identified territory and a state’s supreme right to exercise its sovereign powers over the said territory. But states do not exist in a vacuum. On the contrary, states often work together toward the achievement of common goals or, alternatively, cooperate toward the achievement of different goals, where those goals are achievable by means of collaboration. Furthermore,

and as observed in the EU, states may surrender parts of their sovereignty to the authority of a supranational institution for the common benefit of the participating states. These undertakings are carried out for the benefit for the state's subjects and the solidification of the state's position in relation to other states. As we have mentioned, international trade, which is the result of the globalization of the market, blurs national borders leading to the commercialization of state sovereignty. This phenomenon can either trigger competition between states, by enacting investor- and entrepreneur-friendly legislation or the harmonization of laws, as observed in the EU, which attempts to decrease conflicts in the legislative schemes, offering an investor or an entrepreneur a larger and more stable market to operate in. The goal of this chapter was not to provide absolute answers to questions or solve issues in the international law with respect to entrepreneurship. On the contrary, the goal is to emphasize that, in spite of the substantive trade across national borders in the global market and entrepreneurs' and investors' ability to operate across these borders, there exists no coherent concept of entrepreneurship in international law. Various issues that entrepreneurs face in the course of their business are addressed by national or transnational legislative bodies, as is the case with the EU, but they all appear to be piecemeal solutions to a complex variety of problems. It is our hope that this contribution will encourage further investigation and research of the issues raised, potentially leading to the identification of feasible legislative solutions to the myriad of issues that entrepreneurs and investors engaging in international activities are facing.

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16

Transmedia Perspective on Entrepreneurship

Nikhilesh Dholakia, Ian Reyes, and Finola Kerrigan

Introduction

Media are multifaceted. They represent a major industry but are also a part of daily life in terms of facilitating communications that have become increasingly cybernetic and electronic. In political terms, media represent what Thomas Carlyle characterized in the mid-nineteenth century as the “Fourth Estate”—the powerful group of external reporters and editors that constitute a bulwark against and provide a check on the three governing branches of the government: the executive, the legislature, and the judiciary.

Technological and cultural forces are continually transforming media. Recent technological and social changes have brought considerations of the creation and operation of *transmedia* worlds—explained in detailed later—to the fore (Kendall 2011; Scolari 2009; Zelenkauskaitė 2017). Old media relied on a transmission model where media had a voice of authority that was accepted by the audience. Media fragmentation, and the ability of the “consumer” (often used interchangeably with “user”) to play a more active role, has required media organizations to develop new modalities of storytelling. This chapter explores the development of transmedia businesses and, in doing so,

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illustrates the alignment between transmedia businesses and entrepreneurship. We begin with Venkataraman's (1997) definition of the academic studies of entrepreneurship... "a scholarly field which *seeks to understand how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what consequences*" ((120), emphasis added); and we argue that transmedia creation and promotion represent an entrepreneurial approach. In this chapter, we focus on the changes of the type illustrated by Angry Birds (Vignette 16.1) and Marvel Comics (Vignette 16.2) cases that have technological and cultural as well as entrepreneurial elements.

Both these cases illustrate the growing interconnections of media entrepreneurship and the nexus of narrative continuity. The production and linking processes for continuing the narrative across media formats fall under the rubric of "transmedia". The Angry Birds case shows that it is possible for a small startup firm to evolve into a multimedia, global, transmedia entertainment franchise. The Marvel case illustrates the long and multigenerational appeal of transmedia enterprises and the increasing tendency for such enterprises to become consolidated under the umbrella of one of the small coterie of oligopolistic giant global media and entertainment firms.

The term "transmedia" refers to the processes, methods, and technologies for carrying a storyline or narrative across multiple devices, screens, and media, attempting all the time to enhance and enrich the ways of engaging and interacting with the narrative. Transmedia approaches do these things by creating and continually evolving imagined "worlds" or "universes" that are intensely immersive and engaging for the users. Transmedia are often described as a "geography" made of "spaces": "... virtual and corporeal mobilities are

Vignette 16.1 Angry Birds: From Handheld Game to Big Screen

The Angry Birds game was founded in 2003. After 51 failed or marginally interesting video games, the Finnish startup company Rovio finally hit the jackpot with its 52nd game. Launched in December 2009, the iconic Angry Birds game was downloaded more than 50 million times by early 2011 and had become the most popular iPhone app. By 2016, there were three billion downloads of Angry Birds. Rovio created the Angry Birds movie in 2016. Continuing its gaming entrepreneurial culture into the realm of films, Rovio shunned the involvement of big movie studios and essentially self-financed the movie. Rovio, however, used a global artist talent pool based in Los Angeles and some of the production and distribution resources of Sony's Canada unit. In this way, Rovio extended the Angry Birds franchise from the tiny smartphone screen to the giant movie screen. Until 2017, Rovio had resisted multiple attempts at takeover or merger.

Source: Based on Garber (2016)

Vignette 16.2 Marvel Comics: From Paper Comics to Multimedia Empire

Marvel Comics represents a historically long drawn-out process of creating transmedia. The Marvel Comics franchise is quite different from Angry Birds. An established brand with a strong archival library of proven comic-book characters and plots, dating back to 1939, Marvel's properties were a natural fit with transmedia. Additionally, the narrative logic of comic books, particularly those in the Marvel superhero tradition, was well suited for transmedia strategies because the narratives are unending. Even when some arcs come to a resting point, the stories keep spawning, sometimes "resetting" back to the beginning, but always moving. Even the superhero that seems to be in the death throes at the end of one comic book typically makes a miraculous comeback in the next edition. In this respect, the closest relatives to comic books are probably daytime soap operas. The aim and the appeal of such media properties is not narrative closure; rather it is perpetual narrative motion. Moreover, like soap operas, there are many characters and stories developing and intertwining within the same narrative world. Because transmedia are narrative driven, narrative closure can be a threat to the whole enterprise. Marvel launched into movies in 2004, had successful major blockbuster movies by 2008, and got acquired for US\$ 4 billion by Disney in 2009.

Source: Based on Hadas (2014), Jenkins (2013), Jenkins (2014)

combined in increasingly diversified and open-ended ways as media users may access any virtual space ... from any geographical location through their miniaturized transmedia technologies" (Jansson and Lindell 2015, 8). In addition to integration and cross-referencing of content elements, "enhancement, enrichment and engagement" differentiate transmedia from traditional media communication formats. In traditional media, each individual media channel or episode may be interesting, and there may even be serialization of the narrative and some degree of cross-referencing, but each creation stands on its own. In transmedia settings, there is not only pervasive cross-referencing (often not just across media but also across physical spaces as well, such as in Lego and Disney physical settings) but also constant enhancement and enriching of the content and the narrative; indeed, a forceful and joint forward propulsion of the narrative and the audience. There are multiple enticements to traverse the transmedia geography, yet the processes—for incorporating the traversed spaces in strict corporate-branded boundaries or leaving them open, partially or fully, for creative wildcatting exploration in unincorporated or loosely monitored spaces—are contestable, and are explored in this chapter.

Transmedia approaches have been popular in media and creative industries since the 1990s (Kinder 1991). These approaches have been growing in sophistication and are now poised to transform all manners of consumer-facing businesses. Examples of industries and sectors that could be trans-

formed by transmedia include toys, fast-moving consumer goods, travel and tourism, education, sports, fashion, and many more. Many business managers realize that the value of their businesses and brands can be enhanced by cross-referencing and interactivity of narratives about their businesses and brands, and—therefore—transmedia settings are appearing increasingly not just in the media and entertainment world but also in a variety of branded business communication contexts.

In individual-specific media spaces as well as in terms of connecting and cross-referencing of such spaces, transmedia offer multiple opportunities for entrepreneurship. We use the following established definition of entrepreneurship, developed to aid research work on entrepreneurship (Venkataraman 1997, 120):

...entrepreneurship as a scholarly field seeks to understand how opportunities to bring into existence “future” goods and services are discovered, created, and exploited, by whom, and with what consequences.

In transmedia spaces, particularly in the early decades of the twenty-first century, the efforts to “discover, create, and exploit” new media opportunities—especially those opportunities that port established entertainment franchises into new media forms for profits (see the views here of Garber (2016))—are frequent and often frenetic. Hsu (2008, 368) looks to the entrepreneurial literature to note that “entrepreneurial opportunities are ephemeral and transitory”. And, as Jones (2001) found in her study of early film entrepreneurs, entrepreneurial responses are often motivated by technological innovations.

In terms of entrepreneurship and innovation, since many of the transmedia platforms are open to lay users and some platforms may even be open to contributions from expert amateur content creators and independent product designers, one view is that transmedia settings open up multiple new avenues for creativity, innovation, experimentation, and entrepreneurial efflorescence. In these types of settings, the fans and the avidly interested creative amateurs could shape narratives and “worlds”. The impacts of such fan entrepreneurs—let us call them “fanpreneurs”—could take multiple forms. Such fan-enthusiast entrepreneurial efforts could:

- (a) possibly loosen the stranglehold of the big corporate players that may hold intellectual property rights to key characters, brands, and other core elements of unfolding transmedia narratives;
- (b) create parallel media spaces that are transmedia-like but not (technically speaking) transmedia;

- (c) generate entirely new media forms that are emergent or future portents and not yet well specified or classified—potential post-transmedia forms. Of course, these are just some possibilities—neither completely independent nor fully exhaustive.

In this chapter, we examine multiple media entrepreneurial positions—using evidence from transmedia settings as well as relevant socioeconomic and cultural theories—to present a rounded assessment of how transmedia growth would impact entrepreneurship, innovation, and creative economies. We also examine the trajectories of giant media firms as well as major brand-owning companies in the ongoing transmedia production and promotion processes. We begin with a brief overview of transmedia and then present some scenarios in terms of entrepreneurship in the transmedia age. We then provide a comparative discussion of the scenarios and a concluding section that casts an eye on the emergent future.

Transmedia and Transmediation: A Brief Overview

Transmedia are usually identified in terms of form and content (technologies and narratives), but to better contend with these as matters of entrepreneurship it may be best to begin by understanding “transmediation” as a management strategy intended to coordinate and control the quality of creative labor, to protect and exploit the intellectual property resulting from that labor, and to establish and maintain consumer engagement. Concentrating on *transmediation*—the logic and strategies—rather than *transmedia*, the channels and products, is important for two reasons. First, because a discussion of transmediation is a means to distinguish transmedia from similar media products, this is essential to defining the object of analysis. Second, because transmediation processes demonstrate the exigency of transmedia within a certain historical context, this is essential to matters of entrepreneurship.

Transmedia evoke seemingly similar narrative media products—such as Victorian serials, television miniseries, and movie sequels—but, as media, transmedia are newer and distinctive. All the older narratively linked formats just mentioned feature long-form, centrally coordinated narratives—but these older forms do not typically entail multiple media forms and certainly do not entail pervasive cross-referencing. Pervasive and saturated cross-referencing is in the very DNA of transmedia, a lot of such cross-referencing orchestrated heavily by the media firms, and often a lot of it happening more

spontaneously through actions of users and fans. Indeed, the defining emphasis on coordinating across media is why the term “*transmedia*” is used. But is the only difference between Charles Dickens’s *Pickwick Papers* and Marvel’s *Avengers* that the former appeared only in print, whereas the latter appears in many media formats? As a matter of form and content, yes, that is the defining difference. Why is that simple difference important?

Victorian serialization as well as contemporary transmediation are strategic reactions to the emergence of new media technologies, market conditions, and consumption patterns prevalent at particular historic junctures. Contemporary transmediation, moving a narrative across multiple media, is more than an aesthetic innovation. In essence, this innovation is the outcome of entrepreneurship in media marketing. Transmediation is unlike similar practices such as branding, licensing, and product placement—practices that also often entail multiple media—because these other practices do not result in a rich alternate reality, a created and evolving “world” or a “universe”, that is itself the central product. In this sense, transmediation is not just about expanding a narrative, it is much more than telling very long stories. Transmediation expands a look, sound, feel, mood, and so on so thoroughly that consumers can virtually inhabit that world by consuming its “texts”. In comparison to regular promotional communications that entail the creation of memorable, persuasive brand messages and imagery, transmediation entails the spawning of, sustenance of, and elaboration of brand-centric storied worlds—reality spaces that entice, engage, and even entrap consumers in fan-like modes.

There are good reasons for pursuing this strategy, including minimizing risk through instant name recognition, synergistic promotions across products, and increasing revenue streams. But the biggest reason may be that fans, the most loyal consumers, will make this happen whether media corporations participate or not. In this sense, transmedia spaces are shared as well as contested spaces. In such spaces, big media firms, sharp independent creative types, loyal fans, and casual consumers meet, mingle, celebrate, and often enjoin narrative battles.

In this regard, transmediation significantly entails labor management practices that inspire creative fandom while parsing that output with a plan for enhancing transmedia geographies by making them more immersive. The labor practices typically are orchestrated and managed by media firms. As we shall see later, however, sometimes the acts of transmedia production and propagation occur outside corporate ambits. Transmediation is bound with “prosumption” (melding of the terms production and consumption) and “produsage” (the melding of the terms “production” and usage, see Bruns (2006)), terms addressing how consumers/users engage with new media to become pro-

ducers. Just as transmedia connect and collapse media texts in innovative ways, transmediation connects and collapses production and consumption through “fanagement” (Hills 2012). Productive engagements might be “light” produsage, where fans generate value by creating “buzz”, word of mouth, and similar grassroots forms of publicity. Or they may extend to “heavy” produsage, iterating new, fan-made texts intended to articulate with existing transmedia terrain. This type of creative, dedicated engagement is exactly what supports media theorists’ arguments about blurring zones of social and commercial activity (e.g., Andrejevic 2004; Shirky 2010; Stork 2014). That is, narrative texts and media channels are not the only things blurring; underlying socio-economic spaces and actions are blurring too. In this sense, transmediation is about fandom as a lifestyle, thus it concerns more than the production and consumption of narratives. For fans engaging in heavy forms of transmediation, there is a blurring of lines between avocation and vocation.

Of course, dedicated media fandoms may appear organically, outside media corporate ambits. Such patterns of fandom have been studied since the Jazz Age. Inhabitable spaces and identities founded in reference to a canon of recognized media works can be observed, for example, in music subcultures wherein fans adopt manners of dress, speech, posture, and politics in accordance with the texts of a certain genre or artist. The difference is that transmediation is part of a late twentieth-century change in media marketing philosophy, a change that recognizes—and even spurs—these fan-led cultural formations. As Booth (2010) observed, digital-age media marketing differs from the broadcast-age marketing, in that the latter concerned itself with attracting new audiences, whereas the former is most concerned with catering to those who are already fans. This means the crux of the dilemma for transmedia entrepreneurship is that transmediation presumes a dedicated, productive fan base. For established franchises, the already big media firms, the goal is to harness the entrepreneurial fan activity more strategically. For entrepreneurs looking to start a wholly new transmedia empire, the goal is to inspire produsage while “fanaging”—fan engaging and managing—in a way that protects intellectual property as well as the integrity of a canon in the making.

Transmedia, Transmediation, and Entrepreneurial Scenarios

The private ownership of stories, characters, likenesses, and so on makes modern culture different from preceding times: much of old public-domain folklore has been corporatized (with Disney the overwhelming corporate player in

terms of turning fairytales and folktales into branded properties) and new folklore is invented, from the start, in corporate settings. Yet the desire to participate in these things, to see them grow, and to live alongside them seems fundamental to the human condition, as can be witnessed in epic poetry, folktales, and urban legends. Unauthorized spin-offs were a problem for Victorian serialists like Charles Dickens and his publisher, who may have been the first to realize the market vulnerabilities created by a successful series like the *Pickwick Papers* or characters like Sam Weller. Successful serials rely on and stoke the desire for imitations and iterations, but the creators and publishers owning the serials can only realize publishing profits when those iterations can be controlled. Both older new media (e.g., photocopiers, cable access, cassettes) and contemporary new media (e.g., computers, Internet, mobile phones) opened room for myriad entrepreneurial founts stemming from the main tributaries of major media products. Fan fiction, bootlegs, unlicensed merchandise, unofficial sequels, and the like became easier to create and easier to consume. And with the rise of Internet fan cultures—where provenance matters little and unsanctioned authors can become stars unto themselves—corporate forms of transmediation can be seen as a means to protect intellectual property. Corporate transmedia seek to lure and herd the rambunctious and maverick fans back toward the “real” (or, as the media firms would like to claim, “authentic”) sites and objects for consumption, the sites and objects that are controlled—economically and legally—by big media capital.

Transmedia-esque experiences have been available to consumers for a long time. If, however, a constellation of narrative products is not the output of a central, consistent, legally entitled source (i.e., not the outcome of corporate-orchestrated transmediation), it does not become transmedia, in the current conception of the term (Booth 2010; Jenkins 2014; Kinder 1991). In light of the oft-onerous and diligent labor and abiding passion of active fan communities, this may appear to be somewhat sinister. Nonetheless, transmediation is also there to serve and protect these same fans. Transmediation also entails greater consistency and quality control of related media products—for example, exciting cartoons should not be ruined by weak video game adaptations, and movie sequels do not have to get worse with each amateurish iteration.

At their best, corporate transmedia strategies deliver “canonical” products that demonstrate the same care, passion, and attention to detail that fans have long shown in their non-canonical (i.e., unlicensed) endeavors. The dynamic between the two is like that between an official, incorporated territory and its unincorporated fringes. Potentates of the canonical, central territories may strive to annex some borderlands, while declaring others forbidden zones;

likewise, some border citizens may strongly desire to immigrate to the incorporated territory, while others work to protect their claims from incorporation. Arguably, transmediation as such—in its earliest manifestations (Jenkins 2013)—was the entrepreneurial innovation of ardent fans, one adopted post hoc by corporate media. Time and again, active media consumers model the kinds of immersion and engagement they most desire and, eventually, media firms follow suit.

On the farthest outskirts of unincorporated transmedia territory are those with the least interest and opportunity for incorporation. There are outright scammers trying to pass off low-quality imitations, hawking something like “Sponge *Rob* Square Pants” merchandise. And there are those without malice or guile, like those who paint Disney characters on the walls of a daycare center. This terrain is undoubtedly entrepreneurial in some sense, though its practices and outcomes stretch the definition and intent of transmedia strategies. Recalling our watchwords—enhancement, enrichment, engagement—it should be clear that there is not much of any of these in such fringe cases. Transmediation centers on cultivating and negotiating fandom. That is, consumption alone is not the core (as it is in bootlegs, imitations, etc.). Rather, the accent falls on different elements of the marketing mix in such a way that the consumer is not one and the same as the audience member, and that is okay, even better. If anything is revolutionary about transmedia from a marketing perspective, it is this more refined approach to individuals as consumers and audience members. This approach (1) concentrates on serving fanatic audience members more than attracting new ones; (2) does so by creating mediatised spaces wherein audience members live with and through media worlds even outside of discreet moments of consumption; and (3) turns the everyday lives of fans into productive, exploitable feedback loops articulated with canonical media.

When consumers and audience members become committed, engaged, and motivated fans—living fan lives even outside moments of consuming media-created content—all manners of peripheral entrepreneurship could arise. One compelling and well-documented area of such peripheral entrepreneurship is erotic “slash” fiction that “ships” (puts into a relationship, usually sexual) characters from an established franchise (the classic example is sexually explicit Kirk/Spock stories based on *Star Trek*; more recently, Harry/Malfoy stories based on *Harry Potter*). This kind of work speaks from and to the demand for more expansive worlds—more territory—beyond the official, incorporated media property. Yet erotic fan creations, in particular, are also often noteworthy because they are, for many franchises, absolutely unincorporable. The constraints of certain media markets—like commercial broad-

cast television or young adult novels—make this kind of narrative expansion virtually impossible, even despite some demand. Still other franchises have the narrative affordances, if not market conditions, to allow for canonically acknowledged—though still not incorporated—territories, such as *The X-Files* cable television series' winking nods to the potential for a sexual relationship between its main characters, a favorite theme among its fan-fiction writers and readers.

Transmedia and transmediation in strictly controlled branded corporate spaces of course do not always guarantee high quality (see Vignette 16.3). In the case of the movie described in Vignette 16.3, major corporate backing and funding did not lead to a transmedia success.

Old, pre-transmedia practices of careless spinoffs and shoddy merchandising had a way of turning fans off—dissipating their fervor, corrupting the integrity of the original, tentpole media product (see Fig. 16.1, where the “book” serves as the central anchoring pole) by connecting it to less satisfying experiences—but the problem with the movie *Batman v Superman: Dawn of Justice* was that there was seemingly no tentpole to begin with. DC Comics—quite mistakenly, as it turned out—was expecting all consumers to have fan-like behavior from the start, expecting them to be committed to finding a satisfying narrative by consuming a universe of transmedia products rather than just one central pole-like product.

The *Batman v Superman: Dawn of Justice* fiasco (Collin 2016) exemplifies the growing pains for established franchises. What can be said about the germination and growth of entirely new transmedia geographies, those not (initially) under corporate control? The evolution of Slender Man—from an online photo contest to a notorious Internet meme to a contested media

Vignette 16.3 Batman, Superman, and a Transmedia Failure

The widely panned *Batman v Superman: Dawn of Justice* (2016) movie is a perfect example of corporate-orchestrated transmediation gone awry. The movie was launched with much hype and fanfare but failed to live up to its expectations—and failed to nurture the transmedia links among the underlying character franchises. With a running time of more than two and a half hours, critics generally observed that the narrative was chaotic and never quite went anywhere. This is because this film was conceived as a keystone for a new transmedia campaign for DC Comics' *Justice League* franchise—it was never supposed to be a single film, so it failed to work as such. Its only purpose was to anchor the characters, plots, and mood of *Justice League* while, ideally, priming consumers to move to the subsequent nodes for transmedia consumption. In actuality, it failed to achieve these goals.

Source: Based on Collin (2016) and authors' research.

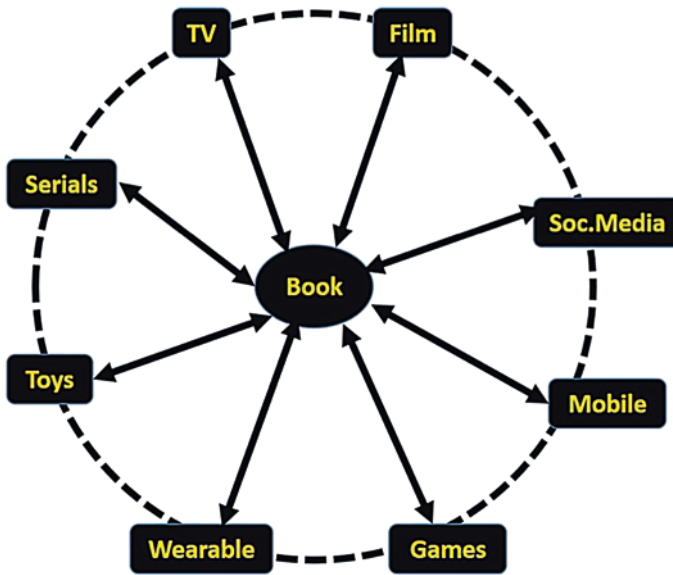


Fig. 16.1 Tentpole model of transmedia

property to the root of a budding transmedia empire—illustrates some of the dynamics at work in the founding and growth of original transmedia geographies (see Vignette 16.4).

Three points of interest emerge in the Slender Man case. First, despite the heavy emphasis on narrative in transmedia theory, it is obvious that only the tiniest amount of storytelling is needed to get the ball rolling; two pictures and a few lines of text are all it took for Slender Man to take off. Perhaps—rather than “narrative”—it would be best to think initially in terms of establishing a compelling aesthetic, pointing to a postmodern transformation of transmedia. Second, the difference between organic fan subcultures, folklore, or a meme and a transmedia entity is a significant one. It is the difference created by the negotiation and protection of intellectual property rights. In such processes (including the formal negotiation processes), it is as essential to know how to make the borders between sanctioned and unsanctioned media permeable. It is just as important to know when to “lock the gates”. The transmedia geographies-spaces do often become contested, with corporate rights-holders controlling the gates and the keys, while the smuggler-interloper-creative fans constantly look for fissures and cracks and dig tunnels under border walls (Jenkins 2013). Finally, at a more meta-level, it cannot go without noting that the key channels in the creation and evolution of Slender Man—spanning sites like SomethingAwful and CreepyPasta to YouTube,

Vignette 16.4 The Slender Man Saga

In 2009, a paranormal themed photo-editing contest on SomethingAwful.com inspired two pictures of a faceless man in a dark suit lurking near children. The pictures' creator, Eric Knudsen, accompanied the submissions with fake eyewitness testimony about the figure.

The figure soon came to be dubbed as The Slender Man. The photos and testimony led to new works by other creators across multiple social media platforms, yielding photos, videos, games, and stories about this character. While, initially, Knudsen granted rights to some entrepreneurs asking to build on his creation and many sanctioned and unsanctioned products resulted—most notably the Marble Hornets (2009–2014) YouTube series and dozens of stories featured on the CreepyPasta website—this also meant that there was no canonical Slender Man story, or geography, because there was no strategic transmediation across iterations. Slender Man was simply an evolving digital folklore, sans a canon.

Interestingly, while Slender Man-themed offerings bloomed in social media platforms, there was far less uptake as a commercial media venture. As early as 2012, it became evident that Knudsen alone did not have exclusive rights to the character, rather another legal entity held the options for media including film, television, and games.

By 2016, Slender Man rights were variously held by Mythology Entertainment, Madhouse Entertainment, and It Is No Dream Entertainment; these entities collectively negotiated film rights with Sony Pictures. So, from 2016, it can be expected that the presumption around Slender Man will begin to map its legal as well as narrative boundaries, to declare a capitol seat of the empire, and to confront the matter of multiple and (now) unauthorized barbarians at its newly erected gates. In other words, from disparate and not always orchestrated directions, the conditions to create a “world” may gradually be emerging.

Source: Based on Chess and Newsome (2015), Dewey (2014), McNary (2016)

Kickstarter, and Steam—is a reminder of an overarching lesson of transmedia entrepreneurship from the ground up. The lesson we need to pay heed to is that when “producers” and firms alike rely on otherwise content-free platforms, there may be as much or more potential in creating and controlling social platforms than strategizing around content creation via those platforms. Through an entrepreneurial lens, it is possible to see that there is a place for niche platforms (e.g., CreepyPasta) even in an ecosystem dominated by mega-platforms (e.g., Google's YouTube).

The myriad patterns of entrepreneurial activities in transmedia spaces require detailed study. As a starting point, we propose a two-dimensional mapping (see Fig. 16.2 and the associated Table 16.1) formed by juxtaposing varying levels of corporate control and fan engagement. The map sector with very low corporate interest and very low fan engagement (labeled “E” in Fig. 16.2) is of course not of particular interest, except in one potential sense. In the low-low part of the space portrayed in Fig. 16.2, the unincorporated aspect of this

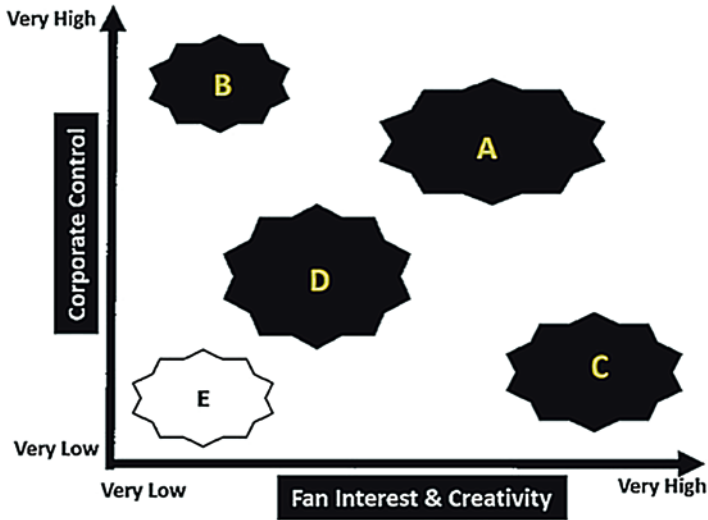


Fig. 16.2 Mapping transmedia entrepreneurial spaces

Table 16.1 Zones and types of entrepreneurship

Zone	Type of Entrepreneurship	Example(s)
A	Typical corporatized transmedia with strong fandom	Most Disney, Marvel, etc. franchises
B	Failed corporate transmedia entrepreneurship	<i>Batman v Superman: Dawn of Justice</i>
C	Non-corporate transmediation-based entrepreneurship	Early Slender Man
D	Contested entrepreneurial space: Corporate vs. Fanpreneur	<i>Star Trek</i> , <i>Harry Potter</i> erotic slash fiction
E	Parasitic, shady-shoddy scams based on popular transmedia	Sponge <i>Rob Square Pants</i>

sector could motivate individual or connected non-corporate actors to experiment and to create a constellation of transmedia-esque activities that could boost fan engagement rapidly. In some instances, this may lead to transmedia-like creations that become creative sandboxes, soil for rich future transmedia creations, and future shared and/or contested spaces of great economic and social interest. The map zone with very high corporate control and very low fan engagement, of course, represents the corporate transmedia strategies that fail to achieve their communication objectives: the *Batman v Superman: Dawn of Justice* movie representing an example. The sector with high fan engagement but very low corporate control is where Slender Man type of entrepreneurial activities occur and sometimes thrive. This zone, often with strong instances of

skilled “produsage” activities (Bruns 2006), requires more research exploration in the evolving digitally rich era. The typical shared/contested transmedia spaces are, of course, in the upper right side of the map, where corporate control as well as fan engagement levels are both high.

The various transmedia forms and transmediation scenarios that we have described by no means represent a final blueprint of the transmedia landscape or a well laid-out map of future forms of entrepreneurship in this field. What they do indicate is the multidimensionality and, therefore, multi-trajectory futures of transmedia (see Table 16.2). Compared to many other fields of human social and economic endeavors, transmedia spaces and transmediation processes (see, e.g., Dholakia and Reyes 2013) offer avenues for creative innovation and entrepreneurial actions, avenues that are closed to all but the very largest entities in other fields. Transmedia spaces do offer the dry tinder and sparking flint stones to light many entrepreneurial fires—often in areas on the periphery of incorporated zones and sometimes in areas where no corporate media entities are anywhere in sight.

Table 16.2 Dimensions for understanding transmedia spaces

Framework Mnemonic	Underlying Core Concepts	Comments
CONTROL and CANON	Governance, authority, legal rights, hierarchy, surveillance, risk management, and gated/walled-garden vs. open source formats	An ongoing challenge for transmedia is how to strike a good balance between closely controlled and monitored canon and characters and strong fan engagement and fervor—often the source of further fan interest and engagement
CONTENT and CREATIVITY	Innovation, creativity, entrepreneurial fervor, originality, uniqueness, produsage, labor process, value creation, and appropriation	Consumer-users-fans are here to stay as sources of originality, play, entrepreneurship, and creative labor. Organic, ground-up transmediation will likely keep spinning out new content and media forms. Socio-politically marginal as well as aesthetically edgy innovations and representations will generally occur in non-canonical spaces
CULTURE and COMMUNITY	Relationships, social networking, co-creation, produsage, horizontal knowledge transfer	All transmedia seek a growing, engaged, and supportive social media community. Most electronic communities, however, are not under the control of transmedia canon-character owners. Hence, organic processes and horizontal sharing continue to occur, as do canonical conflicts. Some communities and their cultures could become very creative and entrepreneurial

Emerging Research Directions

At the intersection of transmedia and entrepreneurship, several major research questions arise and new research directions open up. What makes the study of transmedia interesting from an entrepreneurial perspective are the processes occurring at the intersection of fanpreneurs with media owners. Through such processes, in many instances, there are constantly evolving creative responses to engagement with consumers through multiple narratives. This requires further research into power dynamics in this transmedia age. Such exploration also necessitates reconsideration of intellectual property and its role in media entrepreneurship. In many settings, fans gain increasing control, and co-produce narratives as well as creative materials. In doing so, fans may support or detract from the brand. Old, established forms of protectionism of intellectual property may no longer be appropriate or advisable. Furthermore, with business increasingly looking to “Big Data” to drive decision-making (Chen et al. 2012), transmedia approaches may provide a counterbalance to such aggregated treatment of consumer data. Big data analytics aim to aggregate individual data into high-level patterns of consumption and use the analytical insights to target consumers. This can be seen as a “push” approach to marketing. Such Big-Data-push approach is counter to the transmedia approach aimed at engaging fans and, centrally, allowing fans to discover and participate in transmedia worlds of interest to them (Kerrigan 2017). Unlike Big Data analytics, transmedia offers more of a “pull” approach. Big data analytics can provide big picture insight into *targeting* new markets for entrepreneurs. Transmedia, on the other hand, may offer fine-grained opportunities for *engaging* consumers.

Overall, at the intersections of transmedia and entrepreneurship, there would always be an emerging and rich research agenda focused on (but not limited to) questions such as these:

- What types of transmedia entrepreneurship patterns have already been observed and what potentially new entrepreneurial patterns could emerge? How will evolving technologies influence these patterns?
- What circumstances and conditions favor orchestrated mega-corporate transmedia entrepreneurship (such as Disney), independent startup entrepreneurship (Angry Birds), and various types of ‘Fanpreneur’ ventures?
- In transmedia worlds, what types of strategies and organizational forms are available for the under-resourced independent startup entrepreneurs and “Fanpreneurs” to stand their ground against, and possibly even outcompete, the massively resourced oligopolistic transmedia giants?

Concluding Prolegomenon

In the United States, usually seen as a hotbed of entrepreneurial activity, the reality is quite different from the commonly held perception: rather than massive efflorescence of entrepreneurship, after the 1970s there has been a steady decline in entrepreneurial activity in America. Thompson (2016, 26) makes this observation:

Entrepreneurship, as measured by the rate of new-business formation, has declined in each decade since the 1970s, and adults under 35... are on track to be the least entrepreneurial generation on record... This decline in dynamism has coincided with the rise of extraordinarily large and profitable firms that look discomfortingly like the monopolies and oligopolies of the 19th century... In almost every sector of the economy – including manufacturing, construction, retail and the entire service sector – the big companies are getting bigger... markets are now more concentrated and less competitive than at any point since the Gilded Age.

The exploration of the links between transmedia and entrepreneurship that we have undertaken here is, therefore, vital, for the United States and also—by extension—for most of the advanced economies of the world. Transmedia and transmediation could provide an antidote to the steady decline in entrepreneurship. As noted, earlier, new technological advances often motivate innovative entrepreneurial practices. Therefore, such technological advances may bring in new goods and services (in this case transmedia narratives, characters, and artifacts) that allow for discovery, creation, and exploitation by a range of creative producers and fanpreneurs. The very nature of transmedia, and in particular the processes of transmediation, provides fertile ground for entrepreneurial efforts. If entrepreneurial activities in creative fields can be boosted via transmediation, then the resulting economic and social lift for the nations that succeed in such efforts would be substantial.

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17

Migration Perspective on Entrepreneurship

Maria Elo and Per Servais

Introduction

This chapter focuses on how migration influences new venture creation and internationalization and how this shapes the overall economic landscape. Migration dynamics are linked to the formation of entrepreneurship, which points out the need to understand the underpinnings and interconnection of these global flows. Migration is part of globalization in a similar way as trade and investment. International organizations, such as International Organisation for Migration (IOM), United Nations (UN), and United Nations Conference on Trade and Development (UNCTAD) see migration as an increasingly growing megatrend that influences the economy and society globally. For example, in Europe, migration levels tend to correlate strongly with business cycles and the migration policies have developed toward a more liberal approach (de Haas 2017). In 2015, there were 244 million interna-

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tional migrants. In total, 140 million international migrants lived in developed countries while 85 million of them originated from a developing country (United Nations 2016). During the rapid era of globalization between 1990 and 2015, the number of international migrants rose by 60%, resulting in the developed countries accruing a significant gain of human capital. In 2015, international migrants constituted 11.2% of the total population of developed countries, also referred to as the global North.

At the same time, business activities are rapidly developing from local to international, even global. Partly through this increasing interconnectedness and migration, entrepreneurship, *per se*, has changed its nature, taking on new global dimensions, but little is actually known about the interconnectedness of these migratory and entrepreneurial dynamics (cf. Elo et al. 2017). Even if migration (Ravenstein 1885; 1889) may be influenced by numerous forces, relevant epidemic dynamics (Busenberg and Travis 1983), gravity laws (Bergstrand 1985; Kultalahti et al. 2006), bandwagon effects (e.g., Aharoni 1966), and the interplay of local economic landscapes, these dynamics, even considered as laws, have remained on the outskirts of the international business and entrepreneurship area of research interest.

This generates two needs: (1) to understand the spatio-temporal dynamics of migration that implants entrepreneurs into new contexts and between contexts and (2) to understand the types of entrepreneurs and businesses “in dispersion”, being products of these global interconnected flows.

Wright and Ellis (2016) suggest that migration is about transitions, intersections, and cross-fertilizations and, as such, suitable for interdisciplinary study; therefore, linking migration with entrepreneurial action is well-suited (cf. Jones and Coviello 2005; Porter 2000). As Brinkerhoff (2016) notices, the globalized context and migration create an in-between place in which migrants operate and venture; also, their businesses may act in this transnational constellation. This dynamic transnational space is not just one place, such as the host or home country, it stretches beyond nation-states in a multifocal and evolutionary manner (cf. Cantwell et al. 2010; Brinkerhoff 2016). Migrants have a competitive advantage in this transnational in-between space, and they are generally more entrepreneurial (Brinkerhoff 2016; Vandor and Franke 2016).

Paradoxically, these flows and movements between places are approached often with the lenses of multinational enterprises, trade, and investment but it is not asked who these business people are enabling this international business as entrepreneurs and intrapreneurs (cf. Elo and Vincze 2017). Furthermore, it is highly important to have specific, relevant, and reliable findings for disciplines dealing with pragmatic implications and policymaking

for migration. Migration constitutes one of these organizing and governing challenges for both society and economy, partly, because it is not easily confined to a single place nor to static and clear categories.

The purpose of this chapter is to advance the understanding and broaden the debate on migration's connection with international entrepreneurship (IE). Migration offers many root-cause explanations on IE, however, the who-question and the place-dimension have not attracted much interest outside specific sub-fields of entrepreneurship, which thus constitutes a notable gap. This is partly due to different definitions and foci. This chapter introduces and interconnects views from migration theory to entrepreneurship by revisiting spatio-temporal migratory paths of entrepreneurs in the extant approaches and the underlying migratory dynamics. It synthesizes views from different levels and disciplines with a phenomenon-driven logic.

Migration's role in entrepreneurship and internationalization requires a better conceptualization and contextualization, particularly regarding the types of "international" entrepreneurship, as IE can be the reason and/or the outcome of migration and migration may play a significant role in accelerating IE in a place (e.g., Young et al. 2003; Mtigwe 2006; Zahra 2005, 2007; Welter 2011; Zahra et al. 2014; Saxenian 2005). Thus, it is indeed important to discuss and conceptualize "who is the entrepreneur" along with the respective migratory background linking this path to international business in order to provide the contextual understanding on the particular characteristics (cf. Gartner 1988; Boyd 1989; Saxenian 2005; Zolin and Schlosser 2013), but it is also necessary for comparability in research (cf. Lemaitre 2005; see also Jones et al. 2011). Managerially, this is of high interest, as other firms and entrepreneurs may learn from migrants and their entrepreneurial activities, which makes this relevant to a broader audience (Basu and Virick 2013).

The study contributes by providing a theoretical extension on the dynamics of migration and entrepreneurship, highlighting IE as only one of the forms migrant entrepreneurship may take. The study addresses the opportunities and challenges that migration provides to the overall field of entrepreneurship research and provides recommendations for future studies.

First, the study reviews competing views on migration theory and introduces these in relation to entrepreneurship. Second, it presents a model reflecting migration on entrepreneurship and presents research propositions based on the review; and finally, it discusses the paradoxes, challenges, and recommendations for future studies.

Perspectives from Migration Theory

Migration theories have approached the dynamics of human flows between places (Kultalahti et al. 2006; Wright and Ellis 2016; Zolberg 1989; Greenwood 2016; White and Johnson 2016; de Haas 2017). Migration is defined as “the crossing of the boundary of a political or administrative unit for a certain minimum period of time. It includes the movement of refugees, displaced persons, uprooted people as well as economic migrants. Internal migration refers to a move from one area (a province, district or municipality) to another within one country. International migration is a territorial relocation of people between nation-states. Two forms of relocation can be excluded from this broad definition: first, a territorial movement which does not lead to any change in ties of social membership and therefore remains largely inconsequential both for the individual and for the society at the points of origin and destination, such as tourism; second, a relocation in which the individuals or the groups concerned are purely passive objects rather than active agents of the movement, such as organised transfer of refugees from states of origins to a safe haven” (UNESCO 2017).

Migration research has not only numerous distinct disciplinary settings, such as globalization, economic geography, history, and political studies, but also social, ethnological, and anthropological-cultural studies that address migration (e.g., Cohen 2008; Fitzgerald 2006; Brettell 2016). International migration studies (see more in Brown and Bean (2016)) are employed in nation-state governance, international relations, and international migration politics; therefore, a notable body of research has a related macro-level emphasis and ontological and epistemological approach. As a result, a significant part of migration theory deals with the aggregated level of populations, more than that of individuals, and how these populations shift (e.g., Kultalahti et al. 2006).

Migration studies are particularly interested in the mechanisms and laws that may regulate human flows (see more in Ravenstein 1885; Lee 1966). Migration-related concepts explaining migration vary from macro- to micro-levels of agency (cf. Bakewell 2010). Pull and push forces play a central role in the analysis of migration triggers and country selection. Political regimes, their impact, and migration policy constitute one significant stream of research in migration studies. Populations, per se, are also seen to form gravity effects and pull and push effects, beyond the early gravity models based on unemployment rates and distance of migration (Kultalahti et al. 2006; Makower et al. 1938).

Individual agency and social networks influence decision-making on migration (e.g., Bakewell 2010). Utility maximization views (Greenwood 2016),

early location theory (Isard 1960), and present discounted values of the outcome of migration as a human capital investment (Sjaastad 1962) have provided approaches for theory development explaining migration (Greenwood 2016). In addition, researchers in economic geography have approached migration through its geographical location, related networks, and linkages but also by examining corridors and other migratory formations in places (Yeung 1999). Diasporic gravity effects, entrepreneurial bandwagon effects and opportunities, even religious networks influence migratory paths (cf. Basu and Virick 2013; Elo et al. 2017).

The early theories on migration build strongly on Ravenstein's (1885, 1889) seven laws of migration; these addressed distance, stages, stream and counter-stream, urban-rural context, gender on distance, technology, and dominance of the economic rationale. The underlying idea of several early theories followed the disequilibrium perspective in which migration functions as the means to diminish the difference (economic/income) and/or to catch up between two places. Greenwood (2016) discusses the shortcomings of the disequilibrium approach, proposing an equilibrium approach instead, suggesting that migration occurs to amenity-rich areas.

The modern theories look at issues similar to globalization, world-systems analysis, state theory, and global structures related to inequality, barriers to movement, changing labor migration, liberalization, the opening of the socialist world, and the refugee crisis in the developing world (Zolberg 1989). This kind of macro-level research relates to centrifugal and centripetal forces, dynamics, and models that are confined to particular places. Both early and modern theoretical views relate directly to the concept of place; a place represents advantages that can be captured by migrating and has an aggregate and dynamic nature (cf. entrepreneurial ecosystem).

However, there is a need for a qualitative and more granular understanding. Numerous institutes and associations employ migration studies that support their activities, for example, in managing migrant integration, employment, or policy programs. Beyond the research that serves a country and its governance issues on a macro-level, there is a stream of research approaching migration in a more qualitative manner by trying to address the "why?" and "how?" questions in order to understand these dynamics, for example, concerning migrant entrepreneurs. For instance, studies on migration dynamics related to marriage migration, foreign students, and labor migrants provide vital understanding on the social underpinnings for shaping various societal, educational, and industrial policies (e.g., Boyd 1989). Other specific theoretical lenses are needed to examine particular phenomena, such as demographic development, integration, and urbanization processes related to migration and entrepreneurship (Eðvarðsson et al. 2007; Heikkilä and Peltonen 2002).

The contemporary approaches on migration studies are: (1) generally historical, paying attention to changing specificities of time and place; (2) generally structural, focusing on the social forces constraining individual action and emphasizing the dynamics of capitalism and state; (3) generally globalist, seeing national entities as social formations permeable to determination by transnational and international economic and political processes; and (4) generally critical, concerned with the consequences of international migrations for both the countries of origin (COOs) and destination, as well as for the migrants themselves (Zolberg 1989). Recently, migration research has been enriched with new sub-streams on the international mobility of talent and international human resources (e.g., Habti and Elo 2017; Tung 2008). Both the emphasis on expatriation and self-initiated expatriation stem from the corporate context and the individualist side of migration (e.g., Andresen et al. 2012). Sojourners, self-initiated expatriation, and global mobility, as theoretical concepts, continue to build partly on the earlier labor migration theories addressing pull and push forces on the individual level (cf. Mahroum 2000). There is a discussion on the new international division of labor and the role of global cities as epicenters of human activity, and migration appears again in the context of globalization, business, and entrepreneurial ecosystems, and on the development of megacities (cf. Zolberg 1989). The location perspective, as the epicenter of the centripetal forces, such as those megacities and clusters, takes into account the competitiveness and attractiveness of the place as well as its agency in governing the pull (e.g., Tung 2008; Bakewell 2010; Porter 2000). Thus, the multi-layered link between people and place is inherently dynamic.

Interestingly, despite the significant volume of literature on international migration focusing on migrants that migrate for employment (e.g., labor diasporas) and on distressed migrants (e.g., asylum seekers and refugees who are forced to leave their homes) fleeing various threats, there is as of yet very little literature on the international migration of entrepreneurs seeking opportunities in a particular place (cf. Sandberg et al. 2018; Elo et al. 2017; Elo 2016). This highlights a grey area also in IE research.

Even with the core assumption in migration studies, the element of a better life and better opportunities in the post-migration situation, the concept of opportunity remains rather implicit, even neglected. This is a paradox, as the expected outcome is strongly related to the pre-migration motivations and reasoning of the process in total but the process view is lacking. There are only partial studies on certain causalities or functions regarding the mechanism. Inequality, as explicated by differences in political and economic opportunities, such as those between the global “south” and “north”, taken together with

migratory networks and economic proximity, are considered elements of regionalized migratory pressures (Portes and Walton 1981).

Another key assumption to debate is that of free movement, as this is invalid for most migrants. Flows of migrants are not free-floating phenomena but regulated by both the sending and receiving states according to migration policies and laws. The multi-lateral and bilateral agreements among nation-states on migration regulate the flows but have not produced any contemporary version of the Nansen Passport (the stateless persons passports issued after the First World War) that would allow legal status for stateless people seeking refuge (Bundy 2016); thus, free movement is only reserved to those holding rights within these agreements, such as EU citizens. Already in 1889, Ravenstein noted that migration flow can be diverted or stopped by legislative enactments. Modern migration theory refers to these moderating forces as “disincentives” also emphasizing the fact that, if socialist countries were to let people out, the effective constraint would be incorporated in the immigration legislations of the destination countries (Bhagwati 1984).

Modern migration theory approaches the movement of labor not just as an individual response to opportunities but as part of the dynamism of the transnational capitalist economy (Zolberg 1989). Zolberg (1989) and Portes (1978) further discuss the relation between the center and the periphery, and their roles, as the periphery supplies the center with labor, which constitutes a migration flow toward the center but also represents a form of dependency, even forming structural distortions that function as push conditions. Conceptually, the center also strongly conveys the notion of being the place of capital and power, for example, migrant labor and talent has been seen and discussed as a permanent solution, with costs and benefits, for European capital in economics (Cohen 1987; Zolberg 1989). According to Cohen (1987, 144), importing labor of a subordinate status was a preferred and helpful solution for European capital, regarding the state-level agency as the “importer” of migrants and migration.¹ These policies were assessed by Organisation for Economic Co-operation and Development (OECD) (1979), which pointed out, already then, that there was a repetition of serious problems in history resulting from cultural conflicts, competing claims for jobs, and miscommunications due to language problems. Similarly, opposition in the political arena has underlined self-interested native taxpayers, that is, incumbent actors in the domestic economy, militating against the newcomers, even when they share ancestral origins (Zolberg 1989). Labor migration is linked to both the resulting ethnic enclaves and emerging ethnic and immigrant entrepreneurship. Therefore, place is specific and also the time period when this labor is employed is specific (being often limited or temporary).

The membership of these labor migrants in their own social contexts simultaneously represents a more limited degree of societal participation and membership in the context of the host society (cf. Cohen 2008).

Place is a central concept in migration. Place, a nation-state, has not only the agency to govern its migration flows with laws and migration policies but also the responsibility to address the so-called brain drain, brain gain, and brain circulation that are part of its economic resource base dynamics (see Fig. 17.1). However, diasporas, international economic competition, and the war for talent with versatile skills form pull and push forces, gravity effects, and centrifugal forces related to the place and alternative places.

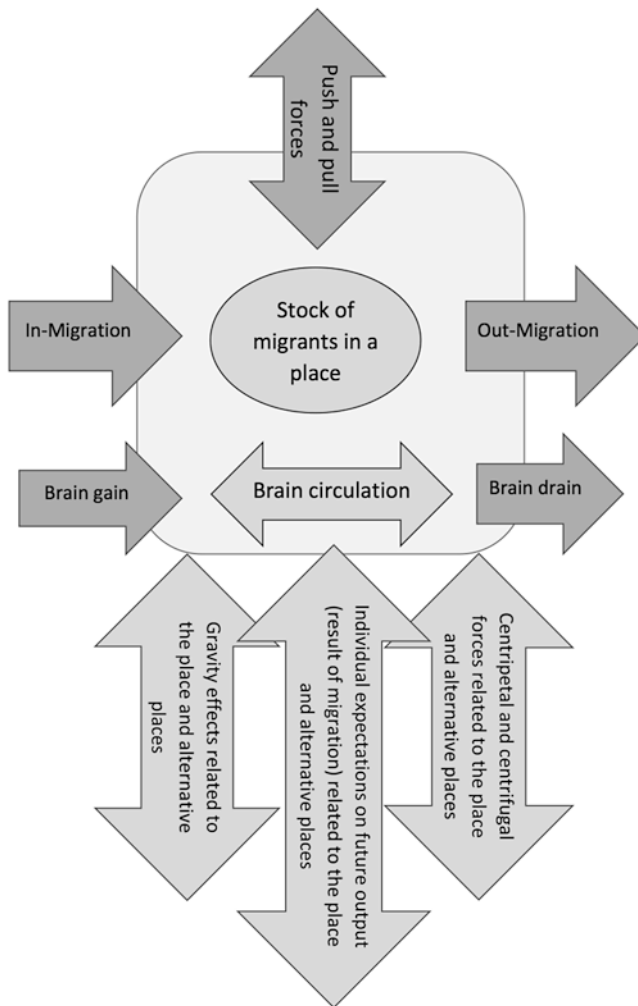


Fig. 17.1 Migration and nation-state flows and forces

and economic comparisons made on the individual level that further amplify centripetal and centrifugal forces influencing the balance of the flows, their intensity, direction, and number (see Fig. 17.1). These dynamics relate directly to entrepreneurial and innovation ecosystems that are dynamic spatio-temporal configurations.

The Interconnection of Migration and Entrepreneurship

Regardless of the a priori reasons and mechanisms of migration, there is notable evidence on the impact of migration on entrepreneurship, entrepreneurial orientation, capabilities, mind-sets, and cross-cultural experiences (e.g., Riddle and Brinkerhoff 2011; Cohen 2008; Brinkerhoff 2009; Vandor and Franke 2016; Filatotchev et al. 2009; de Haas 2017). One of the key paradoxes is that, despite this significant link, the research on entrepreneurs in IE has not included the person behind the “entrepreneur” and the location-migratory path of this person as part of its theoretical focus. Therefore, the underpinnings of migration remain separate from the IE field and have been developed to a greater extent under the sociology umbrella (e.g., Rath and Kloosterman 2000) than the entrepreneurship theory umbrella, leading to an amphidromic theory development. The debates on multiple country-market settings and the multifocality of the entrepreneurial activity seem to exist in a disconnected manner (cf. Ojo 2013; Solano 2016). Interestingly, this underexploited and under-examined domain has high potential for IE and entrepreneurial internationalization (EI) research (see, e.g., Calof and Beamish 1995; Jones and Coviello 2005; Coviello and McAuley 1999). According to Jones and Coviello (2005), EI is a process that is both time based and time dependent. Similarly, the migrant dispersion that covers high psychological distances and connects locations in a rich manner has significant potential to explain related international new ventures (INVs) and EI processes, and the space in-between (cf. Brinkerhoff 2016; Elo 2017). Additionally, the digital dimension that is typical for transnational diaspora entrepreneurs (TDEs) (cf. Brinkerhoff 2009) requires IE theorizing, as it is more than a supply or marketing element.

IE, as a domain, has a strong focus on place, this being the place of activity regarding the business itself, such as manufacturing and sales, and also representing foreign target markets where the output is distributed, sold, and used. The word “international” here refers to foreign markets that are nation-states, representing cross-border transactions and activities. Jones et al. (2011) reviewed the domains of IE research and created a thematic map of the domain’s development, illustrating how different types of IE research evolve

and focus on different elements. These groupings are EI, international comparisons of entrepreneurship, and comparative EI. They formed the typology by grouping the thematic areas of the primary focus of the research. Internationalization of entrepreneurial activity provided multiple facets and respective approaches in this seminal review but did not explain the linkage between the entrepreneurs and their migratory biography due to other ontological and epistemological foci.

Theorizing on Migration and Entrepreneurship: Paradoxes and Challenges

The migration literature presents multiple paradoxes regarding aspects such as flows, stickiness, brain circulation effects, and employment of resources and their benefits on the host economy (de Haas 2017; M. Heinonen 2013). Among the major problems of theorizing migration and migrant entrepreneurship is the multifaceted disciplinary setting and the nascent, emerging nature of the field of migrant entrepreneurship that lacks generally agreed-upon concepts and terms. The perspectives tend to separate sending (home) and receiving countries (host) in following similar conceptual framing as IE, but the transnational in-between space creates complexity for IE. Key concepts for this theory nexus debate are the migrant-origin person and trajectory, the place of business activity, and the dimension of internationalization linked to the overall migration.

First, the status and category of the migrant-person requires conceptualization and contextualization (in the multiple embedded social and spatio-temporal contexts); only then can it become a fruitful object of theorizing. Otherwise, there is no comparability. Furthermore, there is no agreement on who is a migrant in terms of legal status, societal membership, otherness in heritage, linguistics, and what can be considered the number of generations still constituting what we can term as *migrantness*, or, put another way, the layers of diasporic embeddedness. As a result, various types are discussed in an interchangeable manner (cf. Brubaker 2005). Moreover, the role of migrants as entrepreneurs is multifaceted: owner-entrepreneur, co-owner entrepreneur, active investor, member of a family business, intrapreneur, and combinations of these. Therefore, the who-question requires clarification be incorporated into the migration literature.

Second, the place of the entrepreneurship (i.e., location) imposes challenges, prompting the question of which location should be addressed, the firm's or that of the entrepreneur, or is it the location span of the entrepreneurial activity,

per se (cf. Riddle et al. 2010). Therefore, the where-question requires revisitation in combination with the who-question and the particular migratory trajectory, as the “where” is intertwined with the concept of “who”, and is not a stand-alone concept.

In addition, migrants as entrepreneurs follow neither the gradual style of the Uppsala model (Johanson and Vahlne 2009) nor the innovation models in internationalization (Ruzzier et al. 2006) that exhibit a strong link to geographical proximity; they follow their own proximity configurations (cf. Brinkerhoff 2009; Riddle et al. 2010). For example, the business and psychological distance between COO and country of reception (COR) can be significant, but, for migrants, it may be their closest proximity relation for entrepreneurial activity and the most relevant EI choice. This is radically different from the dynamics presented in classic internationalization literature (e.g., Johanson and Vahlne 2009). Thus, there is the need to explain this processual difference theoretically within IE.

Entrepreneurs and migrants are embedded in an overall social and economic context (Rath and Kloosterman 2000). They are influenced by population developments, as migration creates markets and shifts markets. Deducing from migration and diaspora research, the number of migrations, including transnational circulation, has an impact on the type of entrepreneurship that results from these transitions and changes of location. In addition, the role of dispersion, depending on whether it is high related to the ethnic or co-ethnic population, is significant regarding the type of entrepreneurship (Lin and Tao 2012). For example, small and highly dispersed diasporas do not support formation of the type of immigrant entrepreneurship that builds on ethnic enclaves, co-ethnic populations, or ethnic business ideas serving dispersed diasporas in the COR, whereas, larger diasporas that form ethnic enclaves which are dispersed collectively do serve these forms of entrepreneurship, becoming the “new domestic” entrepreneurship in the host context (cf. Ram and Jones 2008). On the other hand, migrant entrepreneurs in Silicon Valley are not setting up simply local ethnic enclave businesses despite the significance of the size of the Indian diaspora there. Thus, qualitative research needs to explain these formations and patterns (cf. Basu and Virick 2013).

Migration is actually a prerequisite for many INVs. Migrants who are not embedded (entrepreneurially) in large diasporas in the host context and who are migrating multiple times following international opportunities are typically entrepreneurs who may become serial- and multiple entrepreneurs (cf. Basu and Virick 2013). Entrepreneurship research is also understood as explaining the discovery and development of opportunities (Ardichvili et al. 2003), which links these two processes (migration and entrepreneurship) as

one. Porter (2000) discusses this dynamism, suggesting that crossing a border is one thing, but it is another thing where entrepreneurs settle (cf. cluster), which is often what attracts them, instead of the country, per se (cf. Mainela et al. 2014).

Structuralist Perspectives on Migrant Entrepreneurship

To understand the phenomenon of entrepreneurship and its inherent migration dynamics and resources, it is necessary to review, analyze, and organize the definitions, elements, and ontological approaches (cf. Shane and Venkataraman 2000). Therefore, this review employs moderate structuralist (topology of home-host) and connectionist (flows of activities) lenses in approaching the distinct fields and settings (Borgatti and Foster 2003). Shane and Venkataraman (2000, 218) specify two key elements to address: the *processes* of discovery, evolution, and exploitation of opportunities, and the set of *individuals* who discover, evaluate, and exploit. The concept of “closeness” between the producer and consumer (cf. McDougall 1989; McDougall et al. 2003) is inherent in the concept of place, but it is also linked with migration, its distance, flow (i.e., stream and counter-stream), and center-periphery location dynamics (cf. urban-rural difference).

This section analyzes the foci and the main differences of entrepreneurship research in terms of their topology (cf. place and international activity) reflecting ethnicity, origin, place, and internationalization and flows that represent business activities and personal migratory paths. The review compiles an overview for the theory debate. Despite the “broad label” of entrepreneurship (cf. Shane and Venkataraman 2000), there are distinct fields or types of entrepreneurship that have specific international characteristics, country settings, and flows that have particular “places” in which they are active and with which entrepreneurs are connected through their migration. These are summarized in Table 17.1.

Host Economy as the Place: Ethnic Entrepreneurship and Immigrant Entrepreneurship

International entrepreneur-individuals can do local business; ethnic and immigrant entrepreneurship are closer in nature to domestic entrepreneurship than other migrant entrepreneurship types. This type is less “dispersed”

Table 17.1 Types of entrepreneurship and migration

Research field type (comparisons, reviews and meta-studies)	Thematic focus and locus	Key themes	Explanatory factors and determinants	Key differences
<i>Domestic entrepreneurship</i> McDougall et al. (2003); Shane and Venkataraman (2000); Zahra (1993)	Domestic new ventures (DNV), domestic-(home) country setting	Domestic (origin) entrepreneur, domestic firm, characteristics of the entrepreneur (traits, capabilities), framework for entrepreneurship	Entrepreneurial experience, domestic strategy, local integration, local competence, industry factors, entrepreneurial opportunity, its discovery and exploitation, entrepreneurial behavior (antecedents and consequences)	No international sales, domestic activity scope
<i>International entrepreneurship</i> McDougall (1989); McDougall et al. (2003)	Domestic (location of the firm, i.e., home) venture with use of resources and sale of outputs in multiple foreign countries (host), focus on initial stages of the firm's operation (start-ups)	Concepts of the firm such as international new venture (INV), global start-up, born-global, instant exporter, international venture Speed and expansion of internationalization and foreign business activities	Entrepreneurial foreign experience, international strategy, international competition and industry structure, global integration, competitive advantage (differentiation, innovation, patents, quality, service, marketing), multiple market penetration, need of external resources, multiple channels	International sales from beginning of the firm, international competition

(continued)

Table 17.1 (continued)

Research field type (comparisons, reviews and meta-studies)	Thematic focus and locus	Key themes	Explanatory factors and determinants	Key differences
<i>Ethnic entrepreneurship</i> Masurel et al. (2002); Zhou (2004); Volery (2007)	Ethnicity and ethnic character of the entrepreneur, in host-country context	Ethnicity, social and human capital, patterns of interaction, common national experience, ethnic minority, ethnic economies	Socio-economic adaptation, ethnic minority behavior, ethnic enclave dynamics, ethnic economies, ethnic and break-out strategies	Venturing mainly within the ethnic enclave and economy, that is, local/domestic (cf. Riddle and Brinkerhoff 2011)
<i>Immigrant entrepreneurship</i> Rath and Kloosterman (2000); Aliaga-Isla and Riaip (2013)	First-generation immigrant, business as means of economic survival, host country context	Immigration, integration through economic activity, specific types of businesses of first-generation immigrants, resource and opportunity development	Necessity entrepreneurship, economic adaption, integration, business types, generation dynamics, social mobility	Immigrant characteristic of the entrepreneur, first-generation, not necessarily and a business targeting co-ethnics, host country
<i>Transnational entrepreneurship</i> Portes et al. (2002); Drori et al. (2009); Chen and Tan (2009)	Process of TE, entrepreneurial activity, transnational entrepreneur	Reasons and processes, individuals/ organizations pursue new ventures employing resources in more than one country, business activities in two geographical locations, dual social fields	Transnational opportunities, economic adaptation, multiple-embeddedness, migratory mobility	Transnational nature of entrepreneur and entrepreneurial activity, bifocality, transnationalism

<p>(<i>Transnational</i>) <i>Diaspora entrepreneurship</i> Brinkerhoff (2009) (book); Nkongolo-Bakenda and Chrysostome (2013); Newland and Tanaka (2010); Riddle et al. (2010); Elo (2015)</p>	<p>Diasporanness of the entrepreneur, diaspora networks and resources, diaspora behavior, diaspora venturing, multiple and mixed contexts, country-level effects</p>	<p>Diaspora features, cultural heritage, transnationalism, motivation, behavior, processes, network organization, resources, mobility and circularity</p>	<p>Diaspora ventures, diaspora investment, diaspora home country development, behavior (emotions, altruism), aggregated actor level</p>	<p>Diasporic nature of entrepreneur and international entrepreneurial activity, multifocality, transnationalism, multiple mobility and migratory flows</p>
<p><i>Returnee entrepreneurship</i> Bruton et al. (2008); Wang and Liu (2016) (book)</p>	<p>Repatriated entrepreneur, resources from the previous host context, business, innovation and development activity in the country of origin</p>	<p>Motivation, venture determinants, effects on receiving country (home) from experience and resources (host), migration decision-making, heterogeneous and context-specific strategies</p>	<p>Entrepreneurial resources and development of new technology, knowledge and other capabilities, home context development, migration policies, country-level perspective, emerging economy dynamics</p>	<p>Returnee, double-flow migration, post-return knowledge and resource employment, home country context of the venture, not necessarily international sales</p>

as these entrepreneurs employ their co-ethnic networks and resources as customers, employees, and for the sourcing of partners, bringing the “home market” features into the new context (Fig. 17.2). This type of entrepreneurship often builds on a single migration (the entrepreneur) and less internationality (often imports) and is therefore ontologically clearly different from IE (cf. Jones et al. 2011). Still, these types are dominant in the overall migration waves and related to the significance of the migrant stock (cf. Fig. 17.1).

Ethnic economies and entrepreneurship have been approached through the lens of being the minority within a host-country setting, mostly with a sociological, ethnological, or psychological emphasis (e.g., Stiles and Galbraith 2004; Dana 2007; Ilhan-Nas et al. 2011). This type of entrepreneurship is often linked to significant ethnic populations in particular places, for example, diasporas, and is directly linked with migration dynamics. Beyond the ethnicity and ethnic character of the entrepreneur, aspects of social and human capital, theories on assimilation and institutions, and even theology have been employed in the research (e.g., Dana and Dana 2008; Stiles and Galbraith 2004). Waldinger et al. (1990, 3) define ethnic entrepreneurship as “a set of connections and regular patterns of interaction among people sharing common national background or migration experiences”. Still, different motivations drive ethnic entrepreneurs who work under disparate performance conditions than domestic entrepreneurs (Masurel et al. 2002). Despite the deficit lens on economic adaptation, there are novel views on urban endogenous growth among groups sharing a distinct cultural identity (Masurel et al. 2002). Zhou (2004) notes that ethnic entrepreneurship research excludes larger firms which have incorporated their businesses into the core of the mainstream economy.

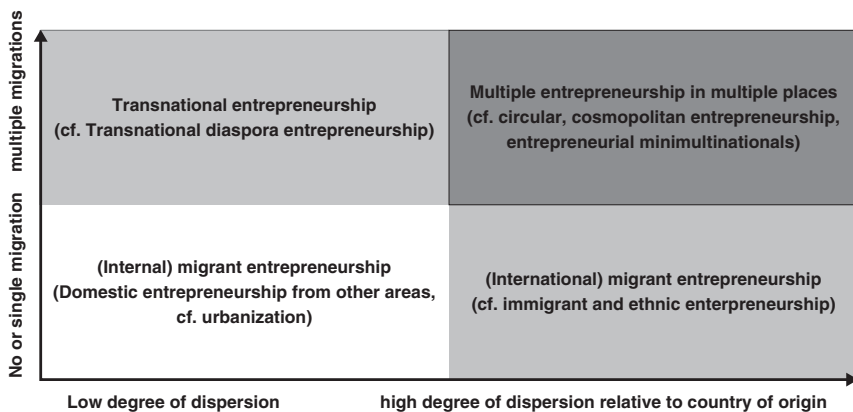


Fig. 17.2 Migration and dispersion on entrepreneurship

Volery (2007) differentiates ethnic entrepreneurship from immigrant entrepreneurship that “include[s] the individuals who have actually immigrated over the past few decades” (Volery 2007, 30). The term “immigrant” excludes ethnic minority groups that have stayed in the host country for longer, but the term “ethnic” does not exclude immigrant or minority groups (Volery 2007). The terms are fuzzy, as the social and business topology can refer to an isolated niche (Masurel et al. 2002). In sum, the ethnic enclave or market has boundaries and it is distinct enough to also generate specific breakout strategies (Masurel et al. 2002). Volery (2007) denotes the difference between ethnic and immigrant entrepreneurs and the ethnic-controlled economy, which is based on ontologically larger and different actor- and business setting.

Ethnic enclave theory and middleman theory are linked to ethnic entrepreneurship theory (Zhou 2004; Volery 2007). The middlemen minorities often serve other local markets, connecting the ethnic business resources to the mainstream economy (e.g., Waldinger et al. 1990; Volery 2007). As the ethnic community grows, ethnic enterprises, such as travel agencies and grocery shops, emerge (cf. Portes 2003). These are local, settled companies following ethnic strategies, that is, they are not active in internationalization (Volery 2007). The study of ethnic entrepreneurship is conceptually interrelated to advancements toward transnational entrepreneurship and the synergy of entrepreneurship in community-building (Zhou 2004).

Immigrant entrepreneurship is a socio-economic phenomenon that focuses on *first-generation immigrants and their entrepreneurship*, which makes this distinct from other groups based on ethnic or internal migration (Aliaga-Isla and Rialp 2013). The definition of immigrant entrepreneurship (also referred to as international immigrant entrepreneurship; see more in Aliaga-Isla and Rialp (2013)), refers to “individuals who, as recent arrivals in the country, start a business as a means of economic survival” (Chaganti and Greene 2002, 128). This constitutes a significant ontological difference both from domestic entrepreneurs (no foreign origin) and TDEs (broader setting than just recent/first generation). Stretching the term to the second generation is an ontological and epistemological problem and a paradox since the second-generation immigrant is only then a migrant if he or she has migrated internationally *in person*. This blurred view has prevailed in many articles despite the 1998 UN definition of an international migrant as “a person who changes his or her country of usual residence, i.e. migrates across nation state borders” (Lemaitre 2005, 2).

Migration is not always permanent. The definition of a short-term migration is limited to a residence of 3–12 months, whereas that of a long-term migrant starts from 12 months outside of one’s COO (Lemaitre 2005; Sasse

and Thielemann 2005), while “diasporas” can represent numerous generations. The strategies and process differences need attention concerning “what follows what” in terms of motivation, determinants, and outcomes, as migration can be the means to start a business abroad or the way to cope with the necessity-opportunity constellation in the host country caused by migration. The dynamic process and its causalities need clarification since the case of an opportunity-driven “business immigrant” (Clydesdale 2008; see also Elo et al. 2015) is a different type than the necessity-driven immigrant who then becomes an entrepreneur as part of the coping strategy (cf. Heinonen J. 2010; Chaudhry and Crick 2004).

Population economics and comparisons between generations may contribute to understanding the dynamics of immigrant entrepreneurship (e.g., Evans 1989). Ndofor and Priem (2011) studied first- and second-generation migrants noting that immigrant entrepreneurs with newly acquired characteristics in the host context are different from those co-ethnics who are born in the host context. The venture type between first and second-generation migrants differs; more technology- and knowledge-oriented ventures of second-generation immigrants are also more inclined toward international activities than locally oriented service firms (Beckers and Blumberg 2013). First-generation migration and resources from dual contexts are found in immigrant entrepreneurship and TE.

The Place In-Between: Transnational and Transnational Diaspora Entrepreneurship

Transnational and transnational diaspora entrepreneurship (DE) are closer to IE than other migrant entrepreneurship types. This transnational in-between space forms a “continuous dispersion” in the sense that these entrepreneurs employ their social and ethnic networks and resources, as customers, employees, and for sourcing partners in bridging and bonding markets (e.g., home-host) in diverse international business activities (Fig. 17.2). This type of entrepreneurship builds on boundary spanning, multiple or circular migration (of the entrepreneur), and internationalization (imports-exports-international cooperation) and is therefore ontologically more similar to IE (cf. Jones et al. 2011; Jones and Coviello 2005; Riddle et al. 2010). Still, these types represent the outliers of the overall migration waves (Portes, Conclusion: Theoretical convergencies and empirical evidence in the study of immigrant transnationalism, 2003), constituting a rather invisible part of the migrant stock (cf. Fig. 17.1), despite their higher impact on the entrepreneurial ecosystem/place (cf. Riddle et al. 2010; Riddle and Brinkerhoff 2011; Basu and Virick 2013).

Transnational entrepreneurship is a rapidly emerging aspect of international business (Drori et al. 2006). It provides a lens to compare international entrepreneurs, ethnic entrepreneurs, and returnee entrepreneurs, while addressing issues such as why, how, and when individuals or organizations pursue new ventures employing resources in more than one country. Interestingly, TE builds on a processual understanding: the *process* of transnational entrepreneurship involves entrepreneurial activities taking place in a cross-national context, initiated by actors embedded in at least two different social and economic arenas.

Transnational entrepreneurs (TEs) are defined as “individuals that migrate from one country to another, concurrently maintaining business-related linkages with their former country of origin, and currently adopted countries and communities” and as “social actors who enact networks, ideas, information, and practices for the purpose of seeking business opportunities or maintaining businesses with *dual social fields*, which in turn force them to engage in varied strategies of action to promote their entrepreneurial activities” (Drori et al. 2009, 1001). Thus, TEs have a strong ontological bifocality, as “TEs occupy *two geographical locations*” (Drori et al. 2009, 1001). They incorporate migration-mobility aspects and lean heavily on the concept of transnationalism (Vertovec 2001). Transnational entrepreneurship analyzes the firm and the entrepreneur, examining respective attributes and activities (Sequeira et al. 2009). Inherently, the theoretical interest is on the international nature of the venture and its international activities (Terjesen and Elam 2009), also on its embeddedness (Chen and Tan 2009), social context, and habitus of the transnational entrepreneur (e.g., Patel and Conklin 2009; Ambrosini 2012).

Transnationalism, as the analytical concept of venturing and entrepreneurial development, is complicated (cf. Levitt 2001; Vertovec 2001; see also Elo and Freiling 2015). Transnationalism, as a concept for explaining the in-between, does not originate in entrepreneurship but in the humanities. Kivisto (2001, p. 549) criticizes transnationalism as a concept that “suffers from ambiguity as a result of competing definitions that fail to specify the temporal and spatial parameters of the term and to adequately locate it vis-à-vis older concepts such as assimilation and cultural pluralism”.

The dynamics between the two phenomena (transnationalism and entrepreneurship) and their levels (individual vs. organization) are still underexplored. Elo and Jokela (2015) found that there are individuals who are transnational and entrepreneurs but who do not represent transnational entrepreneurs, that is, are not having international business activities building on their transnationalism in a cross-border context. The degree of transnationalism reduces over time as the first-generation entrepreneurs became more and more integrated in the COR context (Elo and Jokela 2015).

DE² has a more inclusive approach (cf. Brubaker 2005) in examining migrant businesses and resources across multi-layered sociocultural contexts (Brinkerhoff 2009). Nine different country-setting variants connecting contexts are identified (Elo 2016). The term “diasporan” refers to “migrants who settle in some places, move on, and regroup; they may also be dispersed; and they are in a continuous state of formation and reformation” (Cohen 2008, 142). Riddle et al. (2010) perceive TDEs as migrants and their descendants who establish entrepreneurial activities that span the national business environments of their COOs and countries of residence. According to Riddle and Brinkerhoff (2011, 670), “diasporans who establish new ventures in their countries of origin comprise a special case of international ethnic entrepreneurship”. DE and TDE often employ their global diaspora networks for international entrepreneurial activity (Elo 2017) expanding the topology of activity. Some diaspora entrepreneurs are transnational in their activities and lifestyle (Riddle and Brinkerhoff 2011), while others employ their entrepreneurial resources in the context of one country (Elo and Jokela 2015). Many transnational diasporans are circulating between countries without permanent return or residence, connecting markets and developing businesses transnationally (cf. Riddle et al. 2010).

Home Economy as the Place: Transnational Diaspora Entrepreneurship and Returnees

Transnational and circular diaspora entrepreneurs also venture in the home context, in their COO. Similarly, returnee entrepreneurs repatriating to their COO select home as the place of business. Determinants such as diasporic motivations, resources, and strategies to venture in the host country may differ from those in the home country, as here altruistic, sentimental, and social aspects may influence their behavior, in addition to macro-incentives (Newland and Tanaka 2010; Brinkerhoff 2009; Riddle et al. 2010; Nkongolo-Bakenda and Chrysostome 2013). Diasporas are not just communities of dispersed people but talent pools spread across places (Kuznetsov 2006a). According to Kuznetsov (2006b, 221), diaspora networks have three key features that support their entrepreneurship: (1) networks bring together people having strong intrinsic motivation, (2) members of a diaspora play both direct roles (implementing projects in COO) and indirect roles (serving as bridges and antennae for the COO project development), and (3) successful initiatives move from discussions on how to get involved with the COO to transactions (tangible outcomes, such as entrepreneurial activities and investments).

Returnee entrepreneurship has been an important stream of research, especially in the context of Asia and the economic development of China and India. It is a form of circulation linked to COO. It refers to entrepreneurs who have first migrated and then repatriated, bringing new technology, knowledge, and other capabilities to their ventures in the COO (e.g., Kuznetsov 2006a, b; Kenney et al. 2013), particularly in the context of emerging economies (e.g., Bruton et al. 2008; Liu et al. 2010). For example, Filatotchev et al. (2009) link the export of high-technology SMEs with the knowledge transfer of returnee entrepreneurs (see more in Liu et al. 2010). Ammassari (2004) found that especially elite return migrants benefit the COO beyond nation building, namely through economic activity such as entrepreneurship and investment. Moreover, in the case of Ghana and Côte d'Ivoire, they also bring innovative practices, productive investments, ideas, knowledge, work skills, and foreign experience (Ammassari 2004).

The Contributions of Migration Study to Entrepreneurship Research

This review has addressed two needs: (1) to understand the spatio-temporal dynamics of migration that implants extant- and to-be-entrepreneurs into new contexts and between contexts, and (2) to understand the types of entrepreneurs and businesses “in dispersion”, being products of these global flows. Extant research from both streams of studies highlight that these two dynamics are intertwined but not identical; they coevolve due to multiple parallel forces (cf. Fig. 17.1). The sending side acts differently from the receiving side whose attractiveness depends on these international nation-state constellations.

Ethnic and immigrant entrepreneurs increase (with more domestic-/local-oriented businesses) with large migration flows but transnational and TDEs are less linked to such migratory populations (with their more internationally oriented businesses). The role of dispersion on their business models is very different; there are four main types of businesses that employ their migratory resources in different ways (Fig. 17.2).

Based on the migratory flows and paths reviewed, we identified certain mechanisms. These form the following propositions:

1. Migration policy fostering brain circulation and entrepreneurial migratory flows has a positive effect on IE (cf. centripetal forces) (see de Haas 2017; Cohen 2008).

2. An inclusive entrepreneurial policy for migrants has a positive effect on migrant-established IE (cf. expectations and pull effects; see Greenwood 2016; de Haas 2017; Nkongolo-Bakenda and Chrysostome 2013).
3. Achievement of a critical mass of migrant (international) entrepreneurs has a positive effect (cf. gravity effect) on the attractiveness of a place creating a stickier place for IE and stimulating inflow (cf. Basu and Virick 2013; Porter 2000; see also Sonderegger and Täube 2010).
4. The existence of migrant (international) entrepreneurship in a place has a positive effect on the success and expectations of incoming migrant entrepreneurs due to co-ethnic knowledge transfer (cf. diaspora effect; see Riddle et al. 2010; Brinkerhoff 2009; Aliaga-Isla and Rialp 2013).

Future studies are needed to clarify these dynamics in different empirical contexts. We also suggest that analysis should address the number of migrations and the degree of dispersion; see Fig. 17.2.

Conclusion

Opportunity recognition, cross-cultural competence, and international experience are characteristics found in particular among migrants due to their experience of border-crossing. Thus, migrants are important economic change agents. Acs, Dana and Jones (2003, 5) suggest that “the role of the entrepreneur, however, has been conspicuously underexplored in international business journals”. This who-question is addressed theoretically in both migration and IE, identifying those of migrant origin that carry out entrepreneurial activities. Indeed, the individual as an international/transnational opportunity-recognizer having experience from multiple contexts (countries) shapes the place for the INVs activities. This confirms the importance of the connection (cf. bridging and bonding) between two or more places and in-between (Brinkerhoff 2016) that contradicts classic internationalization theory (Johanson and Vahlne 2009). Further, it underlines the importance of cross-culture competence (Muzychenko 2008; Jones et al. 2011) and international experience (Chandra et al. 2009), especially in the context of SMEs (Reuber and Fischer 1997; Fischer and Reuber 2003).

Still, entrepreneurs with migrant origin can be dissimilar, just like diasporas, which are not static homogenous groups; both have context-specific dynamics (Elo 2016). The directions of entrepreneur-migrant flows are part of the larger migration landscape but also have distinct features related to (1) types of businesses and (2) business opportunities beyond social settings (cf.

Basu and Virick 2013). We conclude that IE should incorporate the “who”-actor and the respective migratory paths (entrepreneur vs. firm) into a systematic analysis to provide better conceptual clarity and novel analytical models, perhaps as a distinct sub-field (cf. Jones et al. 2011), as the conceptual confusion regarding migrant entrepreneurship types, migration forms, certain location-types, and contexts (place), and internationalization dimensions generate methodological difficulties (cf. Volery 2007).

Management implications suggest taking a closer look at the growing “places” (cf. Fig. 17.1). The flow of entrepreneurs to a particular place (host of migration waves) such as Silicon Valley, the existence of diaspora, existence of global diaspora networks, and resource networks in the COO are all elements related to place but also are pertinent to management decisions. Migrant entrepreneurs can be close or far from their COO, they can be part of intensive migration flows, part of local and global social networks, and be embedded in dual/multiple contexts. Importantly, their location partly predetermines the types of businesses that are possible in the host context related to ethnic enclaves and diasporic target groups. Regardless of the intensity of the entrepreneurial connection to migration, the overall migration (cf. Fig. 17.1) shapes and forms economic and entrepreneurial landscapes according to the attractiveness of the place (de Lange 2013; Dutia 2012). The centrifugal and centripetal powers of particular locations, the location choice, specific pull-push factors, and the gravity forces created by diasporas create the dynamism for the migrant stock and in- and outflows of migration. Thus, the number of active migrants in a place provides the bases for the different forms of entrepreneurship, IE being one of them, which explicates the connection of these two dynamics and the underpinnings on respective entrepreneurial-managerial choices.

Concerning entrepreneurial and migration policy, the stock of particular types of migrants and diasporas forms a starting point in addressing policy needs. Small and large diasporas provide different entrepreneurial patterns and dynamics. In a similar manner, the different combinations of the home and host context (cf. Elo 2016) constitute one basis for the internationalization potential that needs to be approached in a tailored manner. Building on de Haas (2017), for IE and EI, the migration policy should allow the flow of entrepreneurial talent and efforts to disperse across places since restriction of mobility triggers localized settlement and not international business. Restrictions on back-and-forth mobility may foster brain drain and small ethnic businesses representing economic adaptation instead of inserting this international entrepreneurial capability into a transnational use as a change agent for international business development.

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Notes

1. In this macroeconomic view, importing temporary labor in the form of labor diasporas or “Gastarbeiter” is part of migration policy that primarily serves the host country industry and economy providing it with economic workforce as a factor of production in a centralized manner.
2. Diaspora entrepreneurs may serve co-ethnics as well as mainstream markets; see more in Brinkerhoff (2009), Riddle and Brinkerhoff (2011).

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Ecosystems Perspective on Entrepreneurship

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Introduction

In a historical perspective, the development of entrepreneurship can be seen to have evolved through three stages, starting from factor driven, evolving to efficiency driven, and continuing as innovation driven (Leibenstein 1968). The ecosystemic approach that is the focus of this chapter can be regarded mostly as representing the latest stage of development. The term “entrepreneurial ecosystem” or “entrepreneurship ecosystem” has gained increasing attention within entrepreneurship literature to capture and explain the larger contextual and interaction-based setting for framing, developing, and supporting entrepreneurial activity and processes. Silicon Valley in California has been regarded as the prime example, celebrating the importance of the entrepreneurship ecosystem in this respect. As a consequence of the success of the Silicon Valley-originated companies, other countries and regions all over the world have started to build policies and develop resources in an attempt to achieve something similar.

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According to Isenberg's (2010, 3) definition, the entrepreneurship ecosystem "consists of a set of individual elements—such as leadership, culture, capital markets, and open-minded customers—that combine in complex ways". When these elements are integrated into a holistic system, they can foster growth and venture creation in a specific location. Spigel (2015, 1), on his part, extends the definition as the "union of localized cultural outlooks, social networks, investment capital, universities, and active economic policies that create environments supportive of innovation-based ventures". As these definitions indicate, the research on entrepreneurship ecosystems remains rather versatile and shares numerous interpretations of what an ecosystem actually is and how it can be approached. There are, in addition, several interrelated concepts, the boundaries, interfaces, or extents of which vis-à-vis entrepreneurial ecosystems are not clear or that as concepts are at least partly overlapping with entrepreneurial ecosystems.

The arrival to current understanding of the nature, properties, structure, content, and boundaries of what we call an entrepreneurship ecosystem requires an interdisciplinary approach (Richter et al. 2015). With strong roots in ecology but also in innovation, sociology, strategy, and regional/cluster research, entrepreneurial ecosystem literature has, however, provided new, fresh insight into entrepreneurship research. The purpose of this chapter is to provide an overview, critical discussion, and synthesis of the research on entrepreneurial ecosystems. Starting from the approaches and definitions of entrepreneurial ecosystems, the chapter is organized as follows. We discuss the key phenomena, issues, and themes prevalent in current literature; for example, how do entrepreneurial ecosystems differ from other contextual concepts such as markets, clusters, regions, industries, value chains, networks, sectors, or organizational fields? What is required to create, foster, support, and orchestrate an entrepreneurial resource base, potential, activity, start-ups/spin-offs, and whole entrepreneurial ecosystems in practice? How do entrepreneurs and firms within various entrepreneurial ecosystems build and leverage competitive advantages and strategies needed in global markets? How do entrepreneurial ecosystems evolve? And finally, what is the future of entrepreneurial ecosystems?

The Entrepreneurship or Entrepreneurial Ecosystem Perspective

This section outlines the emergence and key contents of ecosystemic thinking in the entrepreneurship context. The section starts with the antecedents of the ecosystem perspective on entrepreneurship with a brief discussion on organizational ecology and continues with different ecosystem analogies. The section then moves deeper onto the key issues that characterize entrepreneurship ecosystems.

From Ecology of Entrepreneurship to Entrepreneurship Ecosystems

Research on the ecology of entrepreneurship dates back to Hannan and Freeman's (1993) ideas on organizational ecology. Organization ecology examines populations of organizations, focusing on changes in the population through selective evolutionary processes of organizational founding, mortality, and growth, and pays attention to phenomena such as density dependence, structural inertia, niche width, and resources, among other things. However, population-level views are not directly applicable nor solely sufficient to analyze highly individual-focused phenomena such as entrepreneurship. What is relevant to entrepreneurship ecosystems, however, is the emphasis in organization ecology which has been to study new venture founding rates, success of founding attempts, and new venture mortality rates. Each of these three key topics provides insight into the action, processes, and strategies underlying collective entrepreneurial behavior and organizational forms (Carroll and Khessina 2005; Bogaert et al. 2016). However, it is clear that statistical indicators of entrepreneurship should not be confused with entrepreneurship as a process (Stam 2014).

The step from the ecological to ecosystem approach in entrepreneurship is not linear, however. To comprehend the complexity of business entities' interconnectedness to each other and their business environment, ecosystem-oriented researchers have found it valuable to examine the phenomenon from a (biological) ecological perspective. The New Shorter Oxford English Dictionary (1993) defines an ecosystem as "a system of organisms occupying a habitat, together with those aspects of the physical environment with which they interact". Within entrepreneurship ecosystem studies, the organisms have been represented by both individuals and organizations, but the interaction and environment have remained far more elusive and difficult to capture, as indicated by the definitions of entrepreneurship ecosystem.

Ecosystem Analogies Paving the Way to Entrepreneurship Ecosystems

It is important to notice that there are several ecosystem conceptions, as presented in Fig. 18.1, that are related to entrepreneurship ecosystems. Common in most ecosystem analogies is that they stress collaboration and the joint creation and capture of value, simultaneous co-competition, as well as constant innovation. Successful ecologies must realistically allow each of their members to create and realize value for their part in order for

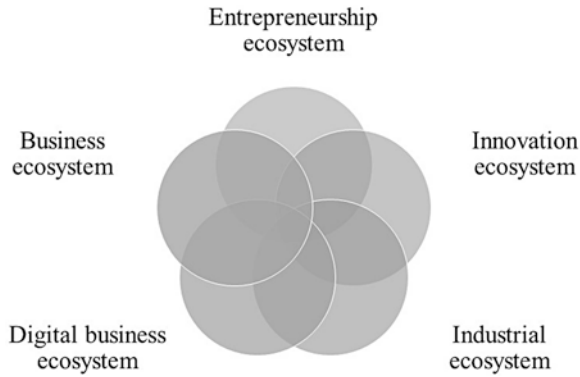


Fig. 18.1 Five ecosystem analogies relevant to entrepreneurship

the whole ecology to be successful from the users' perspective and sustainable from a systemic perspective (Kim 2013). As the term “ecosystem” is often used in parallel with “clusters” and “networks”, for example, some clarification is required. The ecosystem perspective carries a different set of implications and connotations (Gobble 2014). Indeed, the ecosystem perspective stems from ecology, whereas networks stem from strategy (Lehto et al. 2013). Networks are purposefully constructed, whereas an ecosystem is emergent and constantly evolving (Gobble 2014). Ecosystems cross the boundaries of products, organizations, and industries; hence, it is difficult to identify any clear boundaries (Jansson et al. 2014) or stakeholders, nor to draw them definitively for any ecosystem. Clusters, on the other hand, are characterized more by their geographic concentrations of national industries originating either from horizontal or vertical relationships among companies (Peltoniemi 2004).

Hence, when discussing ecosystems, different kinds of ecosystems can be identified. Moore (1993) introduced organic *business ecosystems*, focusing on business relationships and strategies. Moore (1993, 1998, 2006) stated that there are parallels between business and natural ecosystems in that both are partly intentionally formed and partly the result of accidental emergence, and that they are characterized by high complexity, interdependence, cooperation, competition, and coevolution in pursuit of new innovations (Iansiti 2005). “Business ecosystem” covers the company itself, customers, competitors, market intermediaries, complementary product providers, and suppliers. Iansiti and Levien (Iansiti and Levien 2004) added regulatory agencies and media to the list, and even competitors and their customers influence the business ecosystem through business processes. Based on Moore’s (1993) ideas, stakeholders of the information and communication technology (ICT)-specific

businesses have started to discuss *digital business ecosystems* that comprise the converged ICT networks, social networks, and knowledge networks. Contemporary research on digital business ecosystems is mostly technology and platform focused, but Wang and Wilde (2008) argued that software components, applications, and services could be regarded as digital “species” in the global competitive selection process. Frosch and Gallopoulos (1989) introduced the concept *industrial ecosystem* that was later advanced by Korhonen (2001). Industrial ecosystems focus on efficiency and optimization as there are three objectives to them: minimum input of virgin materials, efficient use of virgin materials, and, finally, minimum and harmless waste. The key contribution of industrial ecosystem-thinking for entrepreneurial ecosystems is its emphasis on sustainability.

The basis of the *innovation ecosystem* is the concept of national innovation system. As explained elsewhere in this book, innovation and entrepreneurship go hand in hand. Adner (2006, 98) defined innovation ecosystem as “the collaborative arrangements through which firms combine their individual offerings into a coherent, customer-facing solution”. Later, in an influential paper regarding innovation ecosystems, Adner and Kapoor (2010) used the ecosystem lens to examine innovation magnitude and location in technology business. Mercan and Goktas (2011, 102), on their side, consider innovation ecosystems to consist of economic agents and relations together with noneconomic parts, such as institutions, sociological interactions, technology, and culture. Thus, the authors suggest that an innovation ecosystem is a hybrid of different networks or systems. One key to succeeding in this is the synergy that is created through collaboration. Innovation ecosystem also comprises knowledge and commerce for the purpose of enhanced competitiveness (Pilinkienė and Mačiulis 2014; Oh et al. 2016).

Hence, a key challenge of using the concept of ecosystem as a research domain is that it overlaps with several other concepts. If, for instance, the physical world is considered as a component of ecosystems, what is the role of natural resources? Isenberg (2010, 44) stated that, when it comes to entrepreneurship ecosystems, natural resources in many cases *do not* possess a central role in ecosystems. Often, entrepreneurship is stimulated when there is a lack of resources, as this requires people to be more inventive and opportunistic. According to Isenberg (2010), for instance, Iceland, Ireland, New Zealand, Israel, and Taiwan are examples of such ecosystems that are based primarily on human capital.

Another issue discussed in the literature is proximity. Geographic proximity is claimed to enable better innovation and collaboration, yet Letaifa and Rabeau (2013) found that it is mainly social proximity that facilitates com-

munication and collaboration, whereas mere geographic proximity does not. Spontaneous ecosystems that emerge from private entrepreneurial initiatives are considered to be most prone to innovation rather than those created through economic policies. Thus, it is a crucial issue to investigate what the underlying dynamics, characteristics, and key factors are that define entrepreneurship at the ecosystem level.

Mapping the Entrepreneurship Ecosystem

Building on the earlier-discussed business, industrial, and innovation ecosystems, we can start to map the concept of the entrepreneurship ecosystem. An entrepreneurial ecosystem can be considered as a composition of inseparable actors that, together, support new-venture creation within a specific geographic area (Isenberg 2010; Cohen 2006; Neck et al. 2004; Spigel 2015). From an entrepreneurial process perspective, a crucial issue is to identify how business opportunities are identified, how value is created and captured, and whether the question is of new business creation alone or also of the transformation of existing business (Fig. 18.2).

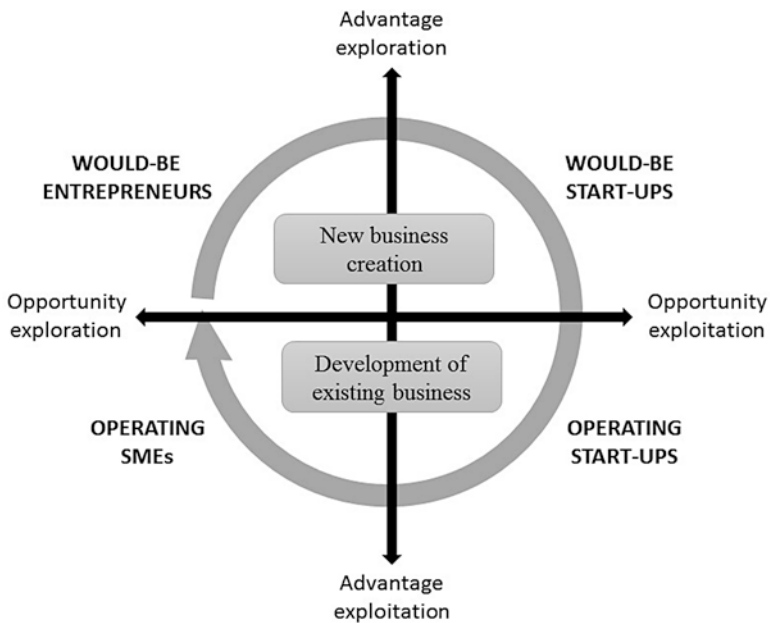


Fig. 18.2 New business creation and development of existing business

Hence, the entrepreneurial ecosystem perspective does not consider entrepreneurship as an outcome alone but that entrepreneurs have a central role in generating and maintaining the ecosystem as a whole. They can serve as focal points as leaders of the ecosystem; however, context is equally emphasized (Stam 2014). This calls for sensitivity to local conditions (Isenberg 2010). A successful identification and exploitation of opportunities that result in new-venture creation and innovative transformation of existing ones requires support from the immediate environment. The World Economic Forum (2013), for example, considers accessible local and international markets, available human capital and finance, mentoring and support systems, universities, as well as robust regulatory frameworks as the most important pillars of entrepreneurship ecosystems. Thus, “an entrepreneurial ecosystem is an interdependent set of actors that is governed in such a way that it enables entrepreneurial action” (Stam 2014). An entrepreneurial ecosystem includes the talent pool, formal and informal networks, public and governmental institutions, research institutes, universities, venture capitalists, and business angels, as well as a shared cultural understanding as a whole (Spigel 2015), that is, the resources specific to the entrepreneurship process. Stam’s (2015, 1763 adapted) ecosystem pillars and their components form probably the most fundamental elements of an entrepreneurial ecosystem:

- Accessible markets (customers from small to big, private and public, and domestic and international)
- Human capital and workforce (management, technical, entrepreneurial talent and experience, outsourcing and immigrant workforce)
- Funding and finance (friends, family, business angels, private equity, venture capital, access to credit)
- Support systems and mentors (mentors/advisors, professional services, incubators and accelerators, networks of peers)
- Government and regulatory frameworks (ease of starting of a business, taxing, legislation and policies, access to and availability of various physical and communications infrastructures)
- Education and training (available workforce with appropriate educational backgrounds and levels)
- Universities as catalysts (promoting culture of respect for entrepreneurship, idea formation, graduates)
- Cultural support (tolerance for risk and failure, preference for self-employment, success stories/role models, research culture, positive image of entrepreneurship, celebration of innovation)

As the abovementioned entrepreneurship ecosystem pillars and their components show, it is difficult to separate between actors, activities, and resources in an ecosystem or to differentiate between the content, context, or processes within an ecosystem due to the interdependent and layered nature of entrepreneurship ecosystems. There are, however, several notions in the literature that concern the use of the word “ecosystem”. As the concept has been defined and utilized in different ways that are not always clear nor compatible with each other, it might be fruitful to talk about “systems” instead of “ecosystems”, and consider the concept as a metaphor rather than as a scientific concept (de Vasconcelos Gomes et al. 2016). Stam (2015) argues that there is a shift, when discussing entrepreneurial ecosystems, toward seeing entrepreneurship in companies and markets as a process “in the making” rather than as an economy searching for a “fully efficient market equilibrium”.

Entrepreneurship Ecosystems and Implications for Entrepreneurship Policy

The emergence and evolution, as well as the deliberate designing and development of the entrepreneurship ecosystem are topics that have gained a lot of interest, from both academic and policy perspectives. This section discusses how to develop and design entrepreneurship ecosystems, how they evolve, and how their properties and advancement can be measured. The section closes with a discussion of academic entrepreneurship ecosystems and the helix concept as the latest streams in ecosystem development that emphasize the role of universities.

Developing and Designing Entrepreneurship Ecosystems

It is indeed a good question whether entrepreneurship ecosystems emerge and thrive on their own in favorable conditions, or whether they can, and to what extent they can, be deliberately initiated, developed, and orchestrated. There is no direct or clear answer to this question. Isenberg (2010) discussed how to start an entrepreneurial revolution and asked governments to stop emulating Silicon Valley and start shaping ecosystems around local conditions. Governments should engage the private sector from the start, favor high potentials, highlight outstanding success cases as much as possible in communications, strive for cultural change early on, avoid excess support for new ventures so as to make them resilient, resourceful, and self-reliant when

exposed to global markets, avoid overengineering the clusters to allow for their organic growth, and, finally, pay attention to reforming legal, bureaucratic, and regulatory frameworks. He also called for relentless experimentation in these matters. If Isenberg's (2010) approach can be seen as a top-down one, Markley et al. (2015) represent a bottom-up approach by discussing the development of the entrepreneurial pipeline, ranging from tire-kickers or preventures to necessity, lifestyle, opportunity, breakout, and high-growth entrepreneurs. Markley et al. (2015) address the entrepreneurship development strategy at the local level and pay attention to entrepreneurial community capacity, the support partner system, and the pipeline contents when looking at the (hopefully positive) transformational outcomes in the entrepreneurial community. They also note that only high-growth entrepreneurs may have large-scale impacts on their ecosystem.

In connection to discussing entrepreneurship policy within ecosystems, and relying on a real environmental ecosystem analogy in this, Auerswald (2015) advised governments to favor incumbents less since favoring them would create barriers to entry for small firms and restrict competition. He encouraged not only to listen to entrepreneurs when designing policies but also to engage with them directly in person in developing and implementing practical policies to foster entrepreneurial activity. In the same way as entrepreneurs, the ecosystem should, as a whole, follow the "think big, start small, move fast" logic. Mapping the ecosystem in detail through roles and interactions is also important, as the ecosystem needs to be validated by its members in order to become effective. Auerswald (2015) warned against artificial segmentation of the community and its strategies, as entrepreneurial communities are not "potted plants" but active participants in a multitude of versatile activities. In addition, ecosystems should strive to capitalize on crises as disruption creates entrepreneurial opportunities.

There is no single accepted model of evolution in entrepreneurship-related research. In general, evolutive processes have been seen to comprise variation, selection, and retention as key elements (van de Ven and Poole 1995). However, in developing ecosystemic contexts, teleologic or life-cycle explanations have been favored over evolutionary ones, as some form of evolution or life-cycle has been understood to take place within ecosystems (de Vasconcelos Gomes et al. 2016; Rabelo and Bernus 2015). Rabelo and Bernus (2015), in discussing innovation ecosystems, present a model that comprises analysis, project, deployment, execution, conclusion, and sustenance phases. These phases should not be understood as a sequence but as a set of activities that are, in many ways, overlapping. In this vein, many scholars have pointed out that, in ecosystemic contexts, the interests of the stakeholders may vary and

even be opposite to each other. Especially the public and private interests do not always meet (Oh et al. 2016), and, as well, the local, regional, and national interests may be difficult to be aligned. Also international differences exist regarding entrepreneurial ecosystem development activities. Kshetri (2014) compared how Estonia and South Korea had tried to enhance entrepreneurial success and concluded there are many paths to entrepreneurial success. Understanding local conditions and specificities appears to be crucial in entrepreneurship development.

An interesting notion has been raised by Zahra and Nambisan (2012) who examined entrepreneurship and strategic thinking in business ecosystems. They identify different types of business ecosystems—Orchestras, Creative Bazaars, Jam Centrals, and MOD Stations—and claim that strategic thinking, in terms of foresight and insight, plays an influential role in ecosystems. Foresight and insight are bounded by imagination rather than just resources or geography. Therefore, knowing the rules of the game for entrepreneurial action becomes crucial. In an Orchestra, a group of firms comes together to exploit a market opportunity based on an explicit innovation architecture or platform defined and shaped by a dominant firm. The dominant firm runs the orchestra and other firms either complement or become integrated into the solution or play on top of the dominant player's offering. In a Creative Bazaar, the dominant firms shop for innovations from the global bazaar of ideas, technologies, and products. Then, utilizing its proprietary infrastructures, the dominant players build on what they have acquired and commercialize them. The Jam Central lacks central dominant players but involves a collection of independent entities that innovate in an emergent or radically new field in a collaborative manner. In the MOD Station, companies allow customers to create modifications out of often proprietary platforms or architectures to address new markets. Zahra and Nambisan (2012) advise entrepreneurs in different kinds of ventures to consider the differences between the ecosystem types and craft their strategies accordingly. Thus, entrepreneurship, new knowledge, mental models, strategies, competitive moves, and ecosystems become dynamically interlinked.

Evolution and Measurement of Entrepreneurship Ecosystems

Regardless of the identification of the elements or pillars or the change/development mechanisms of the entrepreneurship ecosystem, quantification of the ecosystem has not been an easy task. As a complex system, the boundaries of an ecosystem are difficult to define in an exact manner. In addition, when

developing an ecosystem, it cannot be regarded as a linear system with a defined input-output ratio (Oh et al. 2016). Two different kinds of approaches can be seen in the literature regarding the measurement of quantification of the entrepreneurial ecosystems, that of paying attention to the existence of success prerequisites and that of measuring or quantifying the dynamism of the ecosystem. Mere quantification of Stam's (2015) ecosystem pillars would only lead to producing a profile of an entrepreneurial ecosystem but would not result in understanding the dynamics within it.

Isenberg (2010) paid attention to success prerequisites based on the Babson entrepreneurship ecosystem project and asked if public leaders and the government are advocating entrepreneurship with entrepreneurs, creating effective institutions directly associated with entrepreneurship, and removing structural barriers to entrepreneurship. He was also concerned with the cultural atmosphere, especially regarding to what degree honest mistakes are tolerated, failure is regarded as honorable, and contrarian thinking, risk-taking, and entrepreneurship is seen in positive light. A lack of success stories to inspire youth and would-be entrepreneurs, as well as to show ordinary people that they too can become entrepreneurs, would be, according to him, dangerous for an ecosystem. He also thought that an ecosystem should have a sufficient amount of experienced and knowledgeable people and capital in various forms in order to support venturing, nonprofits, and formal/informal networks, as well as to learn from and promote entrepreneurship, along with high-profile educational institutions with entrepreneurship-related education and culture. Also seen as prerequisites for a strong entrepreneurship ecosystem were infrastructure related to transportation and communications, the existence of multinational and high-potential firms in the vicinity, diaspora networks of expatriates, venture-oriented professionals (lawyers, accountants, etc.), and, finally, local potential customers. While having all of these in abundance might be seen as a utopia for most ecosystems, many smaller-scale ecosystems could nevertheless aim at building a sufficient amount of these prerequisites in order to trigger the emergence of a virtuous circle in their ecosystem.

Beyond these prerequisites, The Kauffman Foundation (Strangler and Bell-Masterson 2015) presents four key measures for a vibrant entrepreneurial ecosystem: density, fluidity, connectivity, and diversity. Especially the density of new and young firms per capita, the share of employment in new and young firms, and the sectoral density of start-ups, especially in high technology, are crucial for an entrepreneurial ecosystem. Regarding fluidity, three measures are also presented: the flux of individuals moving in and out, the degree of labor market reallocation, and the number of high-growth companies in the ecosystem.

The connectivity of an ecosystem can be measured by the number of connections between its elements. The first part of this connectivity is program connectivity, which denotes the connections between different programs and other resources for available entrepreneurs. As the diversity and mobility of the entrepreneur population should be rather high, it is not likely that all entrepreneurs would benefit from a single program. The second part of connectivity can be seen, over time, as “entrepreneurial genealogy”, which refers to the degree to which the earlier-generation entrepreneurs influence, interact, and help the younger generations within an ecosystem. This genealogy can be measured as the spin-off rate of the ecosystem, that is, the number of second- and successive-generation companies that emerge. The third part of connectivity can be seen in the dealmaker networks within the ecosystem. Dealmakers are individuals with significant social capital and access to networks that influence new-company formation.

Finally, ecosystem vibrancy can be measured in terms of its diversity in economic specializations (as no ecosystem can rely on a single industry), the immigrant share of its population (as historically immigrants have exhibited high entrepreneurial propensities), and the attractiveness and assimilation of different people to entrepreneurial ecosystems, thus constituting an important marker for progress in the ecosystem. Also, how well the entrepreneurial ecosystem diversifies opportunities is reflected in the extent of economic mobility of the whole workforce in the ecosystem.

The latest developments in the ecosystem discussion are no longer directly related to entrepreneurship ecosystems only, but, beyond that, converging different (eco)system conceptions—geographically, sectorally, and in terms of knowledge—by discussing triple, quadruple, and quintuple helix conceptions (Carayannis and Campbell 2009, 2011) of knowledge creation. The original triple helix—comprising academia and universities, industry and businesses, and state and governments—forms the innovation core of an ecosystem or cluster. Adding the fourth helix, the media-based and culture-based public and civil society, provides the societal context for the triple helix. Finally, the quintuple helix discussion adds the context of natural environments for society.

As a conclusion to their analysis, Autio et al. (2014) rightfully pointed out that, within ecosystem- and entrepreneurship-related discussions, there have been two strands. The national innovation system literature has focused on the entrepreneurial context at the expense of the entrepreneur, and the entrepreneurship literature, in itself, has overemphasized the entrepreneur and overlooked the role of the context. This gap has recently been addressed by the national systems of entrepreneurship theory that highlights the role of

uncertainty in entrepreneurial action, resource mobilization in the pursuit of opportunities, the role of individuals and team, regulation of entrepreneurial action through the perception of opportunity, as well as the desirability and feasibility of opportunity pursuit and the role of competences and contextual factors in regulating the consequences of entrepreneurial action.

Open Questions of Entrepreneurship Ecosystems

From a theoretical perspective, ecosystemic approaches could be considered mostly as descriptive theories on entrepreneurial activity, and their ability to explain entrepreneurial activity or mechanisms has remained limited. The most promising attempts to add explanatory power to ecosystemic approaches could be found when combining top-down and bottom-up views as in the case of national entrepreneurship systems (Acs et al. 2014). However, as a new, emerging, and integrative approach, entrepreneurship system theory has recently opened up new avenues for research.

The traditional mission of ecosystemic approaches to entrepreneurship can be considered from two standpoints; they represent an approach to deepen our understanding of entrepreneurial realities and contexts, or a target to be developed. First, ecosystemic approaches have been used to capture, describe, and explain entrepreneurial phenomena, processes, interaction, and conglomeration contextually within a population of entrepreneurial entities, both private and public. Second, the ecosystem has been seen as a target in the attempts to induce, develop, and support entrepreneurial communities at national, regional, or local levels, or in selected sectors or industries through a variety of policies and support activities. As a reflection on these two standpoints, we discuss open questions in parts. However, before this, a few words are needed regarding the definition of an ecosystem.

From a definitional viewpoint, regardless of the transition from seeing entrepreneurial activity as an ecology, to seeing the entrepreneurship ecosystem as analogous to a biological ecosystem, as a system in general, or merely as a metaphor characterizing entrepreneurial activity, the demarcation problem of the ecosystem concept has remained unsolved: how to figure out where an ecosystem starts and where it ends. Indeed, the boundaries of the ecosystem concept are difficult to recognize, both theoretically and in practice, which in turn influences all attempts to quantify and measure ecosystems. A good example of the definitional problem is present in the triple, quadruple, and quintuple helix discussions. What stakeholders and processes actually comprise an ecosystem? And, as ecosystems continually evolve and transform,

it is practically impossible to capture an ecosystem and its stakeholders in an exact manner. Richter et al. (2015) discuss the opportunities and challenges of the ecosystem approach and conclude that this constant flux that characterizes all complex adaptive systems results in a continuous need to reevaluate objectives, generate new knowledge, engage stakeholders, and deepen understanding of the inherent dynamics of the system in order to reach sustainability.

A related problem of how to define ecosystems, and also of the classification of different types of ecosystems, has remained an issue. Urban, rural, fringe, or periphery entrepreneurship ecosystems have differing characteristics. One of the most striking open questions is the density or proximity problem for which mixed evidence has been presented: too little density has been seen as a bad thing for reaching agglomeration benefits in an ecosystem; but, at the same time, too much density could also be a bad thing due to increased costs in the ecosystem.

The definitional and classification-related challenges of the ecosystem approach are reflected also in the discussions of how to initiate, develop, and govern entrepreneurship ecosystems and where to focus attention in their dynamism. As complex and difficult-to-capture systems, intervening in their functioning may produce counterintuitive or unwanted outcomes or consequences, or no results at all. The question remains, as ecosystems remain different and unique regarding their internal characteristics and dynamics, of what kind of different development policies and activities would work in different ecosystems, and does it pay to govern them at all.

The Contribution of Ecosystemic Perspective to Entrepreneurship

The ecosystemic perspective highlights that expanding the capabilities of one actor beyond his or her own organizational boundaries and transferring knowledge into innovation takes place through collaboration with others (Adner 2006). Knowing who these actors in the ecosystem are is a critical structural component (Sipola et al. 2016, 181). Entrepreneurship ecosystem expands the perspective from the small firm level to the environment level and includes other important actors, such as policy agencies, incubators and accelerators, as well as risk capital providers (Sipola et al. 2016). Thus, the ecosystemic perspective includes members from the public and governmental side, from research institutes and universities all the way down to ordinary users

and citizens. Entrepreneurship is present in all societies, but it is manifested differently depending on the context (Auerswald 2015); therefore, entrepreneurship is a context-bound phenomenon.

Entrepreneurship ecosystems have been the focus of academic research for a relatively limited time (Auerswald 2015; Sipola et al. 2016). At the same time, entrepreneurship is becoming more systematic and institutionalized than ever before, with abundant research within different management disciplines on the factors that shape the rise of successful entrepreneurship as well as entrepreneurial ecosystems (Aaltonen 2016, 8). Yet, the determinants of entrepreneurship arise from the context, which ultimately define whether firms coming from a certain location can succeed or not. Ecosystems are where organizations put down their roots, but success is the result of a number of things. Access to nutrients and fertilizers, that is, capital, R&D, technology, and markets is one determinant (Kshetri 2014); regulatory framework and policies that favor entrepreneurship and economic freedom is another; but, the role of culture and values is equally crucial. It is therefore important to recognize the forces that shape entrepreneurship to begin with and reflect on those carefully within the specific regional context (Aaltonen 2016). The ecosystemic perspective integrates the underlying factors and conditions at three levels: the strategy and policy-making level, the supporting institutions level, and entrepreneurs and enterprises themselves (Simatupang et al. 2015).

In connection to its biological roots, the ecosystemic perspective on entrepreneurship thus provides the soil on which entrepreneurship can flourish and the nutrients for its fruitful growth. As biological systems, ecosystems too rely on synergy and a certain level of balance that supports the continuous evolution of the system. However, this does not simply mean that entrepreneurship wholly depends on a favorable business climate and artificial, passive support. Rather, entrepreneurship itself cultivates the development of ecosystems, that is, a favorable business climate depends on entrepreneurship (Auerswald 2015). The ecosystem as a whole is a major factor, as entrepreneurship is catalyzed through an environment that encourages innovation and business development (Arruda et al. 2015) in which the active participation of various stakeholders is a key success factor in entrepreneurship ecosystem creation (Simatupang et al. 2015). This kind of dynamic, systemic understanding helps in “planning policy interventions, evaluating investment opportunities and understanding areas that an entrepreneur needs to pay attention to” (Aaltonen 2016, 13).

In ecosystems, the success of a value proposition depends on creating an alignment of partners from various organizational backgrounds that need to work together in order to turn a winning idea into a market success

(Priem et al. 2013; Adner 2012). Ecosystems thus provide a new perspective, distinct from the traditional firm-centric view, creating new kinds of opportunities for entrepreneurs, as witnessed in practically every sector of the economy. Such network-centric innovation, as fostered by the ecosystemic perspective, has become an integral part of the business environment (Zahra and Nambisan 2011). The interactions and interconnections within and between sectors of the economy provide new sources of knowledge for innovations, which boost the creation of new firms. The contribution of the ecosystem perspective to the entrepreneurship literature thus provides an understanding of the context-bound systemic and structural interactions and interdependencies that support and develop entrepreneurial activity. However, what needs to be acknowledged is that, although the shaping factors are present in all ecosystems, the local conditions eventually determine the impact each of these factors have on the ecosystem, making every ecosystem different (Mason and Brown 2014). The “efforts to create or, more realistically, cultivate entrepreneurial ecosystems need to develop an individualised approach that works sympathetically with a region’s existing entrepreneurial assets” (Mason and Brown 2014, 27). Aaltonen (2016, 13, adapted) has identified ten generic types of factors in the shaping of entrepreneurial ecosystems, which present key aspects especially for policymakers in the advancement of entrepreneurial ecosystems:

- How does the regional context for entrepreneurship matter as both local proximity and cross-border connections play a role in entrepreneurship?
- As start-ups require plenty of varied knowledge and learning to cope with typically severe resource constraints, how to deal with knowledge, learning, and resource acquisition?
- How to deal with funding, ownership, and remuneration, especially when different types of funding interact with each other and support entrepreneurial success unevenly?
- Founders imprint their companies with specific knowledge and personality, which has a lasting impact on the organization, hence, on what basis and to what degree to influence founders and founding conditions?
- How to address innovation and product development in start-ups, as they usually need to bring some sort of innovation to the market to justify their existence?
- Innovation results often in intellectual property that can be exploited in different ways, so how start-ups should deal with intellectual property?

- As product modularity and platforms shape appropriate marketing approaches, strategy, and relationships with other companies, what is the role of product architecture?
- How to market and launch especially the first product that may determine the fate of the whole entrepreneurial start-up?
- How to support start-up strategies in entering or creating a market?
- What to do in exit, failure, and restart situations when entrepreneurship may come to an end?

Fundamentally, pondering these aforementioned questions and perspectives to entrepreneurship, to advance the contributions of the ecosystemic approach, we summarize our discussion by encouraging entrepreneurship researchers to delve deeper into the following wicked questions:

- Why, how, and in what conditions entrepreneurship ecosystems scale, adapt, and become sustainable?
- What could be novel “boundary-spanning” approaches, concepts, and units of analysis in entrepreneurship ecosystem research?
- What novel research methods could be utilized in researching entrepreneurship ecosystems?

Conclusion

This chapter sheds light on the ecosystemic perspective on entrepreneurship and addresses various implications of ecosystems on entrepreneurship. It outlines the emergence and key contents of the ecosystemic perspective on entrepreneurship. It addresses the antecedents of entrepreneurial ecosystems thinking, as well as the components and characteristics of entrepreneurship ecosystems. It further sheds light on the ecosystemic perspective’s implications for entrepreneurship policies and also on the factors that shape entrepreneurship ecosystems. Through the ecosystemic perspective, this chapter identifies entrepreneurship as a context-bound phenomenon.

In conclusion, although the roots of the ecosystem approach are based in the ecological approach, the ecosystemic perspective has expanded vertically to include different levels of analysis, from entrepreneurs to entrepreneurial teams, start-ups, firms, and interorganizational elements, as well as horizontally to cover different types of ecosystems, such as digital and innovation ecosystems. During this expansion, the ecosystem perspective has embedded

the network perspective within itself and has grown over the years to become the richest and deepest contextual-description tool within entrepreneurial discussions. The strength of the perspective is in its focus on action, and, especially, in its ability to provide context for action, and to explain various cause-effect relationships of a complex nature. A good example of this is the discussion on how to develop entrepreneurial ecosystems. This action focus also extends nicely to policy-level discussions.

We see the question of how to integrate and rejuvenate innovation and opportunity-related discussions within entrepreneurship as the future challenge of the ecosystemic perspective. Especially discussions on the platform-economy and sharing-economy may challenge the ecosystem perspective with novel thematic and conceptual elements but also open up new research streams that enrich our knowledge on entrepreneurial ecosystems.

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Part V

Meta Level



19

Human Systems Perspective on Entrepreneurship

Barrett W. Horne

Introduction

Human beings are inevitably and always part of multiple networks of other humans, as John Donne famously observed in 1624, declaring that “No man is an island” (Donne 1959, 109). We live and move within the contexts of families and friends, organizations and communities, nations and tribes. Like a fish in water, we navigate these infinitely varied and inter-connected relationships instinctively and, for the most part, without thinking about or noticing the impact that these webs of relationships—these human systems—have on every aspect of our lives.

Paying attention to these human systems in the context of organizations is precisely the focus of the study of Organizational Development (hereafter referred to as OD). Since its emergence in the mid-twentieth century as a distinct field of theory and practice, OD has endeavoured to understand human systems with the intent of improving organizational effectiveness, bringing together insights from a wide range of disciplines (including psychology, social psychology, sociology, organizational behaviour, ethnography, anthropology, systems theory, complexity theory, management theory and others) (Cheung-Judge and Holbeche 2011, 26–46).

While OD has always embraced the importance of understanding organizations as systems (French and Bell 1999, 82) in the late 1990s and early 2000s,

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it began to be appreciated that human systems—and therefore organizations—are complex. That is to say, they are dynamic, non-linear and unpredictable (cf., Cheung-Judge and Holbeche 2011, s. 38; Olson and Eoyang 2001, s. xxvii). Outcomes cannot be engineered or controlled. This insight, and the consequent application of complexity theory within OD to understand and work with human systems, has significant and specific implications for every aspect of organizational life and leadership, including the entrepreneurial enterprise.

The intent of this chapter is to explore some of those implications, teasing out how OD insights into human systems as complex are relevant to success as an entrepreneur. To that end, the chapter explores what is meant by human system complexity, going on to introduce some models and tools that are designed for working with and within the human systems of which the entrepreneur is a part.

Human Systems

To speak of a ‘system’ is to speak of a whole that comprises interrelated and inter-connected parts, such that the parts interact with each other and change, with movement in one part effecting movement and change in other parts. In classical Newtonian physics, these interactions and effects are reductive (any part of the system can be examined and understood apart from the system as a whole), predictable and reversible—the outcome of linear cause and effect chains. The success and power of this approach in fields like physics and chemistry helped shape a “mechanical, modernist, worldview [that came to dominate and define] ... what is regarded as ‘professional’ and ‘scientific’ in dealing with the human world” (Boulton et al. 2015, 33). As Homer-Dixon puts it, “During the middle and last half of the 20th century, social scientists increasingly depicted human beings and the societies they constituted as machine-like systems governed by Newtonian-like laws” (Homer-Dixon 2009, 10). This view, when applied to human systems, presumes that, with enough data and enough expertise, virtually all human and social problems are solvable through the application of the appropriate intervention in a predictable way—a linear application of cause and effect. Organizational challenges are effectively reduced to engineering challenges.

Even as that engineering model was being played out within organizational theory and practice, there were pressing questions about the universal applicability of Newtonian physics. A central figure in this conversation was Ilya Prigogine and his insights into open evolutionary complex systems. Prigogine wrestled with the apparent contradictions between, for example, classic physics with its linear

Table 19.1 Newtonian versus complex system perspectives

Newtonian Perspective	Complex Perspective
Machine-like	Organism-like
Linear	Non-linear
Predictable	Surprising
Orderly	Patterned
Controlled or controlling	Adaptable or adapting
Designed	Emergent

and wholly determined outcomes, the second law of thermodynamics which posits that all systems move towards entropy and biological evolution which describes how simple systems evolve into more complex systems. Prigogine's key insight was that "...the theories of physics to date had assumed systems were closed, that they were isolated from their surroundings. He was able to show that for *open* systems, patterns and order could emerge spontaneously This was the beginnings of **complexity theory**" (Boulton et al. 2015, 67, emphasis in original).

The implications and possibilities of complexity theory as applied to human systems and within the practice of OD are still being explored and debated, but some things are very clear, including the insight that human systems are complex. Glenda Eoyang provides a succinct and helpful distinction between what she calls the 'Newtonian' and 'Complex' perspectives or paradigms (G. H. Eoyang 2009, vii) (Table 19.1).

These perspectives are not mutually exclusive in the world of human systems any more than they are mutually exclusive in the world of physics or biology. Some problems are indeed simple and linear with predictable and reversible outcomes. But many (perhaps most) human system problems and challenges are complex. Distinguishing between simple and complex contexts and applying appropriate tools are critically important for wise and effective leadership within organizational settings. "Good leadership requires openness to change on an individual level. Truly adept leaders will know how to identify the context [i.e., complex or not] they're working in at any given time but also how to change their behavior and their decisions to match that context. They also prepare their organizations to understand the different contexts and the conditions for transition between them" (D. J. Snowden and Boone 2007, 8).

Human Systems and Entrepreneurship

If it is important for leaders in general to adjust their behaviour and decision processes according to whether or not the context is complex, it is critically important for entrepreneurs.

For the entrepreneurial enterprise is necessarily set within the context of the larger human enterprise—human beings living, working and making sense of their lives. Moreover, by definition, the work of the entrepreneur is innovative—whether related to novel products, processes or ideas—it concerns future outcomes which are unpredictable. And those future outcomes are likewise dependent upon and intertwined within human networks. Irrespective of a person's brilliant innovations, entrepreneurial success is dependent upon the ability to engage constructively and productively with that web of complex human systems of which the enterprise is a part.

The implications of this should be obvious and may help account for the observation that the majority of entrepreneurial initiatives fail (Statistic Brain [n.d.](#)). Having an attractive and commercially viable product, process or intellectual property may, in fact, be the least important indicator of success for a would-be entrepreneur. Similarly, the would-be entrepreneur's willingness and ability to take considered risks are likewise essential but also not sufficient for success. Equally telling and just as critical will be the entrepreneur's insights into and ability to creatively and productively engage and leverage the complex human systems that form the context of their lives and work—their customers, employees, colleagues, competition, funders, associations, community—to name only the most obvious.

At this point, it will be helpful to unpack what we mean by 'complexity' within human systems, even while acknowledging that, at this point in time, "...there is not yet a single science of complexity but rather several different sciences of complexity with different notions of what complexity means" (Mitchel [2009](#), 75) That said, it is possible to provide a broadly accepted description of what is meant by 'complex' within the domain of human systems (which, interestingly, some argue are uniquely complex as compared to non-human systems) (D. J. Snowden and Boone [2007](#), 3).

The foundational meaning of describing a system as complex, whether a human or any other system, means that the whole and the parts interact with each other in synergistic ways—the parts impacting and shaping the whole while the whole impacts and influences the parts. The whole, in the classic aphorism, is greater than the sum of the parts. Moreover, at whatever scale we chose to observe, there are larger and smaller wholes and parts. So what is the whole in one observational context is a part in another and vice versa. These interactions are not random. They operate within constraints or limits (whether hard or soft), and there are clear cause and effect relationships. Yet the sheer magnitude of possible interactions between the whole and the parts and between the individual parts makes it quite literally impossible to predict or control what will emerge from those interactions. But patterns of

relationships do form, shaped by the context and boundaries of the system. Observing those patterns, it is possible to speak of what might happen, even perhaps what is likely to happen, but it is impossible to *know* what will happen. Finally, the interplay between all the parts and the wholes and the emergence of patterns is a one-way journey. Complex systems cannot be reverse engineered—even if one began with the exact same starting conditions, one could not count on the outcome being the same. It is thus possible to speak of complex *adaptive* systems. The emergent patterns are adaptive—responding to initial starting conditions and emerging adaptively through the interplay of the context with its constraints and boundaries—the limits of what is possible.

While the description may seem esoteric, human beings have evolved to function with remarkable ease through the labyrinth of complexity which comprises daily life. We watch a football game and do not give a passing thought to the reality that what we are watching is a once-in-the-history-of-the-universe phenomenon that will never be and could never be exactly repeated. Even if time were to be rolled back and the game began again from identical starting conditions, the outcome would be uniquely different.

In the same way that the football fan likely does not think about their sport in terms of complex adaptive human systems, so the “glaringly obvious fact” that all entrepreneurs are part of that complex reality may account for those human systems being easily taken for granted—something like fishes being the last to appreciate being wet. All human beings live and breathe and are born and die within an intricate, interlocking and multifaceted web of human systems. Families, friends, enemies, tribes, formal and informal associations, nations, organizations of diverse kinds, suppliers of goods and services, customers and clients—the list goes on and on and the possible combinations are, quite literally, infinite. Each and all of these relationships have their own layers—networks within networks, systems within systems. It is, in fact, a vast complex adaptive system, with the added layer of complexity that human beings bring their individual and collective agency and multiple identities to the mix as they play their various roles as ‘wholes’ and ‘parts’ within that web of relationships and systems. It is also the natural context of being human, and humans have exceptionally fine-tuned capacities for navigating that web.

A key element of those capacities has to do with noticing, paying attention to and constructing patterns. “Humans use patterns to order the world and make sense of things in complex situations. Give a child a pile of blocks, and he or she will build patterns out of them. Give an adult a daily commute, and he or she will build patterns within it” (Kurtz and Snowden 2003, 466). Most

who experience a daily commute will be able to think of times when they suddenly became aware of having passed several kilometres without being consciously aware of the fact. They were, in fact, driving on ‘automatic pilot’, while the conscious part of their brain was engaged in some other activity—thinking about what to prepare for dinner, perhaps—when suddenly they snap back to awareness of the road. Perhaps a pedestrian has stepped into a crosswalk or a traffic signal has turned red. They were following a pattern quite unconsciously until that pattern was interrupted, provoking an immediate awareness response.

In the same way that one’s commute can become an almost unconscious activity, navigating the other parts of one’s personal, social and organizational life easily becomes habitual and entrained. There are patterns, but we are so habituated to them that they are effectively invisible to us, even when they may be limiting our goals and ambitions. A simple example of this phenomenon, and one that is relevant to anyone engaged in organizational life, is a meeting in which, say, a group of individuals come together to discuss a proposal, to make a decision or brainstorm some possible actions. In the typical scenario, there is a room with a table and chairs. There is someone who serves as the chair of the meeting. The individuals gather, sit down and the issue or question is posed with an invitation for those present to ‘share their thoughts’. If they are creative, someone may be standing at a flip chart or whiteboard to capture what emerges from the conversation.

There are a multitude of intersecting elements that give shape to the patterns of this meeting which is a complex adaptive system in its own right. We will return to some of these elements as useful tools for would-be entrepreneurs. For the moment, let us consider the fact that human beings process information and engage in conversations in a wide variety of ways. Some individuals, for example, tend towards introverted thinking, preferring to process their thoughts internally before expressing them verbally. Others tend towards extroversion and are most comfortable when they are allowed to “think out loud”.

These distinctions have significant consequences for the hypothetical meeting. Assuming there are eight participants to whom the question under consideration has been posed, the typical meeting will involve one or two participants immediately offering their thoughts and opinions, some other participants who then add occasional contributions and a few participants who contribute very little. There are innumerable factors that might be involved in the distribution of responses, with a common one being the introversion/extroversion diversity. In any event, the net result is that the first contributors have shaped the direction of the conversation, and the group has potentially missed out entirely on insights or wisdom that the non-contributors

might have been able to offer. But meeting participants are so acclimated to this pattern that it is rarely noticed or thought about.

However, if the goal is genuinely to mine the collective knowledge of the participants, paying heed to patterns of the meeting allows for the possibility of shifting those patterns towards desired outcomes. So, for example, rather than diving into the discussion immediately upon posing the question, participants could be given a minute or two for silent reflection to think and make notes about the question, after which they could discuss their thoughts with one other person for a few minutes. At that point, the conversation could be opened to the entire group. In the space of not more than ten minutes, all participants have had an opportunity to gather their individual perspectives, to discuss and refine them with at least one other colleague and then to add their thinking to the whole. By deliberate attentiveness, the pattern of participation has shifted, providing a much greater opportunity for the meeting to benefit from and draw upon the wisdom of the entire group.

It is this attentiveness to patterns while keeping desired outcomes in mind that forms the foundation for effective work with complex adaptive human systems. One of the defining characteristics of all complex adaptive systems is that small perturbations in the part can have massive effects on the whole—but not in a linear or predictable way. From any initial starting condition, there are an infinite number of possible future states. As noted earlier, these future states emerge through the synergistic interplay of interdependent parts acting in the present such that a change in any particular part can have cascading effects throughout the entire system. In that sense, the present conditions represent a constraint on what is possible but not in a way that can be controlled or is inevitable. A small change can shift an entire system while, in another context, a great application of energy is absorbed by the system with little or no apparent movement of the whole (e.g., Boulton et al. 2015). But patterns emerge and from those patterns it is possible to think in terms of propensities and dispositions. We do not know what the outcome will be of a football match, but we do have an idea of what is likely, based on the patterns of play that have so far been observed. In the same way, while it is not possible to *know* what will emerge in a complex adaptive system, to the extent that one is cognizant of existing patterns and initial starting conditions, it *is* possible to see probabilities and potentialities, adjusting decisions and actions to be responsive and adaptive to emergent conditions.

Again, we are intimately familiar with these realities in all aspects of human life and experience. We look at the sky in the morning and make decisions about how to dress for the day. We recall the old saying about “Pink in the morning, sailors’ a-warning” and decide to take an umbrella—the saying

being a reflection of the collective wisdom emerging from a pattern observed since time immemorial. We make an informed judgement based on patterns. In like manner, we look at stock market patterns and make investment decisions, and we look at football team patterns and make playoff predictions, even though in no case do we know what the actual future outcomes will be.

Nonetheless, it remains true that we would like to know and control what the future outcomes will be. This temptation to think “it should be possible” stems from what has been called ‘retrospective coherence’ (D. Snowden, *Reality Avoidance* 2006). This refers to the straightforward, linear causality that is typically apparent when looking at past events and past outcomes. Thus, one can provide a totally plausible and coherent explanation of why the stock market behaved as it did last week. From this retrospective coherence is spawned the unending publication of stock market ‘secrets’ and recipes for guaranteed market success. And of course this is not confined to stock market tips. There is a steady stream of books and publications in all fields of human enterprise that promise guaranteed results if one follows the numbered steps—including for entrepreneurial success (e.g., Blank 2013; Meisel and Sonnenberg 2016). If any of these worked, of course, there would never be a need for another book on the same subject. We are seduced because retrospective coherence allows the illusion that the future can be as certain as was the past.

It is not only retrospective coherence that tempts us to think in terms of controlling human system outcomes. Like the Social Sciences in general (Homer-Dixon 2009), the development of ‘management science’ in the twentieth century grew out of and reflected the great confidence that had arisen from scientific achievements in fields like physics and chemistry. Apparently immutable “laws of nature” were deduced, explored and exploited, helping to propel an explosion of industrialization and productivity. This led to the conviction that, with enough scientific insight into human systems, organizational and social outcomes could be engineered with the same precision and predictability as building railroad bridges. Human systems came to be thought of as analogous to machines—very complicated, to be sure, but wholly predictable and controllable with enough information and knowledge.

In the engineering model, the desired outcome is the necessary and inevitable result of having the right parts in the right relationships according to the right design. If the design (or recipe) is correctly followed, the results are certain. The challenge then becomes determining what are the ‘right’ parts, relationships and designs. But this is a fool’s errand in a complex adaptive system because what is ‘right’ in one context may be quite inappropriate in another. Returning to the football match, the effective coach is not following a carefully crafted engineering plan that calls for player B to replace player A at the

end of the first period, irrespective of emerging conditions in the game. Quite the contrary, a wise coach is paying close attention to those conditions and adapting their strategy moment by moment, responding to the patterns that form and shift through the process of the game. The coach is well aware that game outcomes cannot be controlled, but with wise actions and choices within the constraints of the game and context (e.g., the skill and condition of the players, the rules and timing of the game), the coach endeavours to reinforce positive emergent patterns and to dampen negative patterns.

This process, which is as natural as breathing and typically just as unconscious, has been usefully described as Adaptive Action (G. H. Eoyang and Holladay 2013; Lipmanowicz and McCandless 2013) and is a foundational practice for engaging complex adaptive human systems to progress towards desired outcomes. As such, it is a critical discipline for successful entrepreneurship. Adaptive Action is built around three simple questions:

- ‘What?’
- ‘So what?’
- ‘Now what?’

These are so basic and familiar that it is easy to miss how profoundly powerful they are as tools for navigating complex human systems. The ‘What?’ question is about the context—the starting conditions of whatever it is that is under consideration. Asking ‘What?’ is a broad question that is open to noticing whatever there is to notice, whatever ‘pops up’ in one’s awareness as one asks the question. The importance and power of this question is rooted in the sensitivity of complex adaptive systems to initial starting conditions. Whatever is going to emerge within a complex system will be a product of all the intricate patterns of relationships and very particular features of that situation at that moment in that place. The question is also temporally and spatially scalable. If the issue is not urgent, the question of ‘What?’ can be explored at length and as broadly as resources allow. The question is intended to raise awareness of context and starting conditions.

The ‘So what?’ question looks for what is significant or potentially significant in the ‘What?’ data. It is the step of forming hypotheses about how patterns are emerging and where there might be opportunities to amplify positive patterns and dampen those viewed as negative. This is the exploration stage of Adaptive Action and it is likewise scalable. To the extent that time and resources permit, this exploration can dive deeply into whatever data have emerged, teasing out the patterns and looking for significance relative to the undertaking at hand.

The ‘Now what?’ question is about taking the next step. Having noted the context, having formed hypotheses about what could make a positive difference, shifting patterns in a useful direction, a course of action is chosen. However, within a complex adaptive system, once a step has been taken, the system has shifted in ways that were impossible to know. In other words, there is now a new and novel context, a new set of starting conditions. This is why it is *adaptive* action—immediately having completed one cycle, it becomes necessary to start over. There is a new ‘What?’, ‘So what?’ and ‘Now what?’ It is also fractal: micro-scale Adaptive Action cycles can be embedded in larger-scale cycles which can in turn be embedded in even larger cycles. Thus, Adaptive Action can be practised at an individual, group, enterprise and societal level. At whatever scale is appropriate, the discipline is the same—paying attention to the initial context, noting patterns and forming hypotheses, taking next wise steps and then starting again.

Of particular importance, and easily missed, is the intention behind Adaptive Action. The expectation—indeed, the necessity—of an ‘engineering model’ of human systems is that every problem and challenge has a ‘right’ answer—the one answer that will virtually guarantee the desired outcome or result. With enough data and with proper methods and tools every problem will be solved. But this, as we have noted, is a fool’s errand. With Adaptive Action, the goal of the ‘Now what?’ question is not to discern The Right Next Step which, even if such existed, would be impossible to know. Rather the goal of Adaptive Action is to arrive at “the next wise action that is fit for function” (G. Eoyang, personal communication, October, 2016).¹ To ask what is a wise next action is a very different question from what is a right next action. A wise action is contextual, reflecting conditions and consistent with goals and values. It is, in that sense, “fit for function”. It is contingent, multidimensional and open to learning and adapting. Wisdom is not a fixed state but grows and matures. Wisdom is the prerequisite for making progress in a complex adaptive world. Being right, on the other hand, is a linear, two-dimensional state. One is either right or one is wrong. Genuine engineering problems fit into this two-dimensional frame of reference, but most human enterprise questions, including entrepreneurship questions, do not. Appreciating the distinction between making wise decisions and making right decisions enables action where otherwise there might be paralysis. Making The Right Decision in human systems can be an overwhelming burden, requiring god-like powers of knowledge and judgement. Making a wise decision based on the questions of Adaptive Action is a natural way to move through even the most intractable challenges.

The simplicity of Adaptive Action may tempt some to dismiss it as simplistic. This would be a mistake. It is simple because it fits with how

human beings have learnt successfully to navigate in their complex worlds. Those of our ancient ancestors who survived to become our ancestors were those who were most adept at observing their context, forming hypotheses, taking action and then immediately repeating the process, learning the lessons vital to their survival as they adapted and adapted again. Those most adept became the wise elders of their communities. The same is true for entrepreneurs. Those who have succeeded have been those who followed a pattern of Adaptive Action. But even if it is natural, it is not automatic. Reflecting on the process and developing disciplines around Adaptive Action is an invaluable exercise for would-be entrepreneurs. With awareness and intentionality, Adaptive Action is useful in nearly every part of an entrepreneurial initiative—from purely personal and individual issues to meetings, business plans, product development, marketing strategies and on and on.

This brings us back to the meeting we were considering. The careful reader may notice that, in fact, the process we followed in thinking about the meeting exactly followed the ‘What?’, ‘So what?’ and ‘Now what?’ pattern. We asked what happened in the typical meeting. We then reflected upon the implications of the patterns we observed, including possible hypothesis or explanation, which led in the end to a course of action that we had reason to believe might shift the observed patterns in a beneficial direction. Of course, the process would continue and the next meeting would provide a new context to explore.

Tools for Managing Complexity in Human Systems

In its exploration of human systems and behaviour, and with growing insights into complexity, OD has developed an ever-expanding array of tools, models and group processes to help individuals and groups become more self-aware and adept at working effectively and productively within complex human systems. Adaptive Action is one such model. Another is the process that was prescribed for the meeting. It is an adaptation of the “1-2-4-All” model described by Lipmanowicz and McCandless (Lipmanowicz and McCandless 2013, 22–25). Of course, making choices between possible group process methodologies and applying them to particular situations is itself an Adaptive Action task. Helpfully, there are tools to sharpen and focus our questions. One such is the list of what Lipmanowicz and McCandless call “Micro Design Elements” (Lipmanowicz and McCandless 2013, 9–20) that serve as a useful

point of reference whenever there is an intentional gathering of individuals for some purpose. These elements, taken together, form the context of any meeting of any size or purpose (Lipmanowicz and McCandless 2013, 14):

1. The invitation.
2. How space is arranged and what materials are used?
3. How participation is distributed among participants?
4. How groups are configured?
5. The sequence of steps and the time allocated to each step.

Once again, these are deceptively simple. We are so familiar with these elements that we breeze through them with little or no thought. But developing the discipline of paying attention will yield more options and a greater likelihood of fruitful outcomes when working with any group of people. For example, giving attention to the invitation leads one to ask why people might come, what they need to know before they come, how they will come and how their expectations should/could be formed. Thinking about the invitation necessitates thinking about who should be invited, why they should be invited and how they should be invited. This is not to suggest that every gathering is formal or that every invitation is explicit. Those considerations are part of the thinking about the invitation. But if there is an intentional gathering, there inevitably has been some expression of an invitation. Asking the Adaptive Action questions about the invitation experience can open possibilities for positive action.

In similar fashion, each of the other elements, when carefully reflected upon, can lead to more creative and adaptive group experiences. For example, if the goals of the meeting include getting participants to engage in conversations with one another, what is the best way to configure seating and tables? If thoughts and decisions need to be captured and preserved, what materials are needed and how will they be used? If reaching consensus will be important, what group processes can help to ensure we leverage the honest wisdom of the group as a whole? This last question may be the most challenging, given the limited repertoire of group processes with which many people are familiar. But having seriously asked the question opens up the possibility of investigating what options there might be.

Another basic and deceptively simple tool within the OD toolbox with potential to be useful for entrepreneurs is Glenda Eoyang's "Pattern Spotters" model (Human Systems Dynamics—HSD Institute [n.d.](#)). This is nothing more than a list of five fundamental pattern characteristics, each with a simple yet powerful question:

- Generalization: “In general I noticed...”
 - Allows for a view of the whole event at once. It provides broad reactions.
- Exception: “In general... except...”
 - Allows individuals to state what they missed or what they say that didn’t fit the general patterns.
- Contradiction: “On one hand... on the other hand...”
 - Allows the expression of paradoxes that occur to the observer.
- Surprise: “I was surprised by...”
 - Allows individuals to say what happened that they didn’t expect, giving voice to more potent emotions like fear and joy.
- Puzzle: “I wonder...”
 - Allows individuals to pose their next questions and prepare for further learning.

Once again, the discipline of being carefully and explicitly intentional with these questions, whether as an individual or as a group, has the potential to uncover patterns that were otherwise unseen or unappreciated. The model provides a useful tool for exploring the ‘What?’ and devising hypotheses in the ‘So what?’ of the Adaptive Action process. It is a model with particular value to entrepreneurs who are seeking to discover patterns relevant to their ideas or products, enabling adaptive experiments to see if the patterns shift.

In the space that remains, three more group process models are briefly described, models with particular value for entrepreneurs and which are built on a robust appreciation for the uniquely complex nature of human systems. At this point, it is useful to point out what may be so obvious as to go unnoticed: these group processes take for granted that wise decisions and useful insights with respect to human systems depend upon creative iteration and collaborative conversations between appropriate stakeholders. There is a considered reason for this: human beings experience and make sense of their contexts, making decisions and shaping ideas, primarily through conversation. As Rogers point out, “Organisation is the *ongoing process* of communicative interaction. As such, what we talk of as “outcomes” are simply transient points within this continuous flow of sense-making-cum-action-taking interactions that come to be recognised as worthy of specific recognition and comment” (Rogers 2013, 5).

Thus, the application of OD insights into the wise navigation of human system complexity typically and necessarily takes the form of group process tools. The intention in this brief exploration is not to provide an in-depth how-to manual but only to show how the insights of OD can be practically useful to the entrepreneurial enterprise. To that end, only a brief overview is presented with the understanding that readers can avail themselves of resources that have been noted.

TRIZ (cf., Lipmanowicz and McCandless 2013, s. 187–190) is a Russian acronym for теория решения изобретательских задач (*teoriya resheniya izobretatelskikh zadach*) which literally means “the theory of inventive problem solving”. While it has many potential applications, TRIZ is particularly useful when a group or a team find themselves repeatedly failing to achieve some goal or outcome, consistently getting results that are disappointing. Typically, such experiences lead to conversations to identify and repair what is not working. The TRIZ process reverses this. Instead of asking how to get the desired outcome, TRIZ asks how it might be possible to ensure that the desired outcome was *never* achieved. In other words, in what concrete ways could the team or group behave to achieve the exact opposite of the outcome they were seeking. How, for example, could a group of software designers ensure that every project was at least six months behind schedule? How could a coffee shop ensure that every customer left the shop feeling disappointed and angry? How could a working group ensure that every meeting failed to accomplish anything worthwhile?

The power of this apparently backward approach is precisely that it disrupts the typical problem-solving processes, opening the possibility of uncovering heretofore unconscious or unacknowledged but unhelpful patterns of behaviour or thinking. A group employing TRIZ would spend time brainstorming their ideas and suggestions for guaranteeing the undesirable results (perhaps using the 1-2-4-all process described earlier). This is a fun process and invariably generates a considerable amount of humour—though often with some serious pauses.

The end product is a comprehensive list of all the ways the group can imagine that would yield the negative outcomes they were otherwise trying to avoid. Once the list is constructed, the group spends time reflecting on its content and asking to what extent the list points to current practices and behaviours that need to be altered or simply stopped. This can be a powerfully effective way of identifying “elephants in the room” or making explicit issues and challenges that were otherwise obscure or being avoided. It can be especially helpful to an entrepreneur who, having defined what success might look like (whether of the whole or of a part), thinks not merely of the route to success but also of what the route to the opposite of success could look like. In the context of Adaptive Action, TRIZ stretches the imagination and aware-

ness relative to each of the three questions and adds new possibilities for wise next actions. Of course, as with all group processes that reflect the reality of complex human systems, the possible ways in which the TRIZ process can be adapted and employed are limited only by the imagination.

'Ritual Dissent' (Cognitive-Edge [n.d.](#)) is another group process that is effective at unleashing creative thinking, especially with respect to innovative ideas or proposals that a team or group may be considering. As with TRIZ, the effectiveness of the process stems in large part from disrupting some of the typical (and typically unconscious) patterns of how groups consider proposals. In Ritual Dissent, participants are subdivided into small groups to devise suggestions to address a problem or a question that has been posed to the group as a whole, with each small group charged with developing its own proposal.

At the conclusion of an agreed upon period of time (e.g., 15–20 minutes), each small group designates a representative who will present and explain that group's proposal to one of the other groups. When a signal is given, the chosen representatives move to another group and have a few minutes to present their proposal—the result being that each group is listening to another group's proposal. When the time is up (e.g., three minutes), the representatives turn their chairs around so that their backs are to the group to which they just presented. At that point, the group is charged with discussing the proposal they just heard—but not merely discussing; they are to tear it to shreds, coming up with every possible objection and reason to reject the proposal that they can possibly think of. While they do this (e.g., for five to eight minutes), the representative whose back is to the group is listening carefully and taking notes.

When the time is up, a signal is given and the representatives return to their respective groups (who have also just been shredding the proposal that they heard from another group). These reconvened groups then reflect on what they heard and learned, revising and amending their proposals. Time permitting, a second iteration of the dissent process can be carried out, ideally with representatives with different groups. The final important iteration repeats the process with the critical difference that the groups are charged this time with thinking of everything positive they can say about the (now revised and improved) proposals.

Restricting the groups to providing only negative (and then positive) criticism with the representatives' backs turned to the groups is what ritualizes the process. Because it is ritualized, what would otherwise be potential for defensiveness and anxious politeness is removed. Similarly, the representatives, because their backs are turned, are able to listen and make notes with a dispassion that would be much more difficult if they were face to face with the barrage of dissent. In addition, the perhaps paradoxical focus on negative criticism

helps to overcome a hard working team's potential blindness to, or reluctance to name, disconfirming data. And, once again, the entire process reflects and leverages the nature of human systems as complex and adaptive. The iterative processes allow for experimentation and adaptation of the emerging proposals, deepening awareness of the context and identification of significant patterns that bear on the issues under consideration. In a remarkably short space of time, an extraordinarily rich exploration of possibilities has been able to be considered with practical next steps being refined and tested.

Another group process with particular relevance to entrepreneurial initiatives is the Liberating Structure, 'Min Specs' (Lipmanowicz and McCandless 2013, 228–31). This is a rather straightforward method intended to help a group identify what are genuinely the minimum specifications for an innovation being considered. As with many such methods, its simplicity belies the potential power of its impact. The goal of Min Specs is to identify and clarify what are the absolutely essential must dos and must-not dos to accomplish an innovation. With the objective stated as clearly as possible (e.g., perhaps a proposal that has emerged via Ritual Dissent,), the participants generate as fulsome a list as possible of all the must- and must-not dos that seem important to achieving the goal. Once that list of specifications is generated and posted, each item is ruthlessly tested: is it at all possible, conceivably possible, that this specification could be ignored and yet the objective still be achieved? If the answer is yes, it is crossed off the list.

At the end of this rigorous process of elimination, all that should remain are the truly necessary minimum specifications. In practice, it typically takes several iterations to winnow down to an essential core. But a tested set of minimum specifications with respect to a proposed innovation allows an entrepreneur to identify what are the most important challenges and opportunities, allowing for the wise application of energy and resources. The Min Specs are, for example, a powerfully useful tool for exploring the 'So what?' of Adaptive Action.

It should be apparent by this point that all of these models and processes are variations on a common theme. Taking human systems seriously as complex adaptive systems involves creatively engaging with one another to unlock our imaginations, enlarge and deepen our awareness of our various contexts and make explicit and conscious what often is implicit and unconscious, discerning the patterns that weave and move around our field of view.

With all of this in mind, the final OD insight to be explored as a vital tool for successful entrepreneurship is the art of posing generative questions (e.g., Schein 2013). This is not a group process method as such. It is rather a foundational part of nearly all effective group processes. If a group

process may be thought of as a canoe on the rapids of human complexity, then the development of generative questions is the paddle that allows the canoe to be effectively steered, navigating the currents and possibilities of the river. By 'generative' is meant questions that provoke thinking and reflection that is relevant and germane to whatever is the issue or purpose of the conversation. Generative questions can be used to open up possibilities, enlarging options as well as for consolidating options and reaching conclusions.

Effective generative questions are always contextually situated. What is a helpfully generative question in one context may be simply silly or even offensive in another. Nonetheless, it can be insightful to refer to examples of 'generic' generative questions. One such list is found in Lipmanowicz and McCandless (Lipmanowicz and McCandless 2013, 101):

1. What first inspired me in this work is...
2. Something we must learn to live with is...
3. An uncertainty we must creatively adapt to is...
4. What I find challenging in our current situation is...
5. Before we make our next move, we cannot neglect to...
6. Something we should stop doing (or divest) is...
7. What I hope can happen for us in this work is...
8. A big opportunity I see for us is...
9. If we do nothing, the worst thing that can happen to us is...
10. A courageous conversation we are not having is...
11. An action or practice helping us move forward is...
12. A project that gives me confidence we are transforming is...
13. A bold idea I recommend is...
14. A question that is emerging for me is...

Taken by themselves, any of these questions has potential to generate meaningful conversations in an entrepreneurial context. Taken collectively and used in conjunction with well-conceived group processes, they have remarkable power to yield insights and shape wise decisions. Consider, for example, the process that was proposed for the hypothetical meeting described at the beginning of this chapter, with eight participants sitting around a board table. The leader of the meeting, let us suppose, is hoping to benefit from the collective wisdom of their team with respect to some pressing challenge they are facing. The need is to ensure that the individual wisdom of each participant can be captured and leveraged for the benefit of the whole and to enable a wise decision for next steps. So the leader has crafted

some generative questions that they hope will release the wisdom of the team. Thinking about the current situation they face, one question emerges from the leader's preparation:

- Before we make our next move, we cannot neglect to...

When the team meets, the leader reminds the team of the context and then poses the question—but rather than launching right into discussion, the team reflects silently on the question for three minutes. They then divide into pairs, with each pair sharing their thoughts and answers to the question. After four or five minutes, they change partners and then continue in paired conversation for another four or five minutes. At this point, they are ready to reassemble as the whole group and have a conversation about what emerged as being most critical to the question. Collectively, still thinking of our hypothetical meeting of eight participants, nearly an hour of thinking and conversation has been squeezed into about 15 minutes, with virtually every person's voice making a considered contribution as they dived deeply into an important question. And, as they reach a thoughtful consensus about what needs to be considered before moving forward, they might well turn to the Min Specs process to examine what are the most critical requirements to make the desired move, followed by a TRIZ to ensure there are not things they may need to stop doing in order to reach their goals, wrapping up with a 'What?', 'So what?' and 'Now what?' exercise to reveal their "next wise action, fit for function".

None of these methods and processes, it needs to be stressed, have value as ends in and of themselves. They are best considered as tools in toolkit, each with particular usefulness relative to the need and the type of project. But there is a risk in this analogy, implying as it might that the entrepreneurial enterprise is like building a house or a bridge—an engineering project, in other words. As we have argued, this is not the case. The entrepreneur using these tools and building on these insights may be more appropriately likened to a gardener. The fruit of their labours is not within the power of control or prediction. Rather, it emerges as the gardener plants and tends. The gardener plants and tends, weeds and waters, always responding to the evolving conditions and emerging life.

Emerging Questions

While there appears to be strong consensus that the human systems are complex adaptive systems, there is an ongoing debate as to whether

human complexity is unique from complexity in other kinds of systems (cf., Snowden D. 2017). This is an important question and one that has potential implications for how the challenges of complexity in human systems are addressed. There are likewise interesting and related questions emerging around how human beings are present within and make sense of the world as ‘embodied’ agents, in which our “behaviour emerges from the real-time interaction between a nervous system in a body with particular capabilities and an environment that offers opportunities for behaviour and information about those opportunities” (Thompson 2012). The questions around embodied cognition have potentially significant implications for group processes and decision-making. What, exactly, are the roles of the body and the environment in giving shape to how individuals form conclusions and explore ideas? As those roles are better understood, how do we design group experiences and conversations to best effect? (cf., Pfeiffer and Bongard 2006; Anderson 2003). Taken together, these areas of research will inform how the field of OD can continue to add value to entrepreneurs and the organizations they found and lead.

Conclusion

As we have seen, the entrepreneur succeeds or fails within what must be understood as a complex adaptive human system. The reality of this requires sensitivity to conditions and an ability to adapt, pay attention and adapt again. And because it is a human system, it is the ability to do all this within the unique context of human relationships. So the ‘gardening’ tools of the entrepreneur are the tools of working within, learning from and leveraging human networks. Thus, having devoted itself to developing tools that are suitable for this complex human reality, the OD perspective can be a useful, even a critical, resource for would-be entrepreneurs, especially as the OD discipline continues to develop tools and practices sensitive to the complex nature of human enterprise. Success is never guaranteed, but failure is indeed inevitable for those who fail to understand and learn lessons that OD is well equipped to provide.

Note

1. Glenda Eoyang, personal conversation, October, 2015.

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20

Sociology of Knowledge Perspective on Entrepreneurship

Romeo V. Turcan

Introduction

In this chapter, I aim to address one of the enduring questions in sociology of knowledge, namely: “how is it possible that subjective meanings become objective facticities?” (Berger and Luckmann 1966, 30). I adopt this question to understand the entrepreneurship phenomenon and, more specifically, to understand how *new* business or venture ideas and new sectors or industries (as subjective meanings) are legitimated and institutionalized (become socially established as reality). Counter to Berger and Luckmann (1966), I conjecture that an alternative, reverse-order objectivation of meaning is required to research the entrepreneurship phenomenon. Specifically, I suggest considering legitimation as a first-order objectivation of meaning, whereas institutionalization constitutes a second-order objectivation of meaning when researching entrepreneurship. For this purpose, a legitimation typology is introduced that helps frame the discussion around the process of creation, legitimation, and institutionalization of *newness*, defined, not exhaustively, as new ventures, business ideas, products, technology, industry or sector, policy, forms of organizing, categories, and organization practices. Implications for future research conclude the chapter.

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Setting the Scene

Before I discuss the kernel of the chapter, that is to understand how newness is legitimated and institutionalized, it is important that key concepts and assumptions are defined, clarified, and discussed. An attempt to define *sociology of knowledge* might prove to be futile as its definitions are widely divergent with no agreement or consensus materializing soon. For the purpose of this chapter, I view sociology of knowledge as a study of the relation between knowledge and society (or social or social structure), a study into the problem of the reciprocity or dialectics of the knowledge-society relationship. Within this scope, two key inquiry paths could be singled out (e.g., Berger and Luckmann 1966; Swidler and Arditì 1994; Merton, On Social Structure and Science 1996). One path examines the *content* and *form or type* of knowledge in societies, be this formal or informal, empirical or non-empirical, thinkable or unthinkable, useful or useless. The other path investigates the *processes* by which any type of knowledge is socially established as a reality, by focusing, inter alia, on *who, when, why, and how* knowledge is created, emerging, legitimated, and institutionalized.

Defining and understanding *knowledge* is another challenge. As a form, whether it is knowledge, idea, ideology, thought, belief, myth, will, sentiment, consciousness, mentality, or ignorance is not a major concern in researching entrepreneurship, as we shall discover later in the chapter, and neither is the a priori or posteriori nature of knowledge. The question is derived from the paradoxical reciprocity of the ontology-epistemology relationship built into the relation between society (or social or social structure) and knowledge. Considerations related to the epistemological question of studying what knowledge is are important without any doubt. However, it is the ontological question about the *existential* conditioning of knowledge (Mannheim 1936; Popper 1962; Merton 1996) that is of considerable interest. For example, Berger and Luckmann (1966) view knowledge as “the *certainty* that phenomena are real and that they possess specific characteristics” (13, emphasis added) and advocate for a sociology of knowledge that deals with “the *empirical* variety of ‘knowledge’ in human societies” (15, emphasis added). However, what about knowledge that is uncertain, unknown, or non-empirical? To mitigate this paradox, I define knowledge as “justified true belief, a belief that stands in a particular relation both to the world (it is true) and to the body of evidence the agent possesses (it is justified)” (Elster 2007, 124). Following Nonaka and Takeuchi (1995, 58), I view the emergence of knowledge as “a dynamic human process of justifying personal belief toward the “truth””.¹

Researching entrepreneurship is confronted with a similar paradoxical reciprocity of the ontology-epistemology relation built into the growing dialectical debate about the nature of the relation between opportunity and the *new* venture idea, between objectivist notions of the opportunity construct and subjectivist notions of the new venture idea construct (see, e.g., Davidsson 2015, 2016, 2017). Currently, within the entrepreneurship research domain, “the only consistency to be found in research on entrepreneurial opportunities is inconsistency” (Davidsson and Tonelli 2013, 7). To mitigate what Davidsson and Tonelli (2013) refer to as a fundamental problem, Davidsson (2015) suggests viewing *new* venture ideas as *imagined future ventures*, be these a business *new* idea or concept, entrepreneurial idea, concept, or conjectures, initial opportunity beliefs, or opportunity ideas. From a sociology of knowledge perspective, I argue that “imagined future venture” or “new venture idea” is the “new knowledge” entrepreneurs attempt to create. Following this conjecture, I define, from a sociology of knowledge perspective, the creation of an imagined future venture or new venture idea as *the emergence of a justifying personal belief toward an opportunity*.

Any new knowledge is characterized by its *degree of newness*. How *new* the newness is depends on the decision-making context in which the respective knowledge emerges. Two generic decision-making contexts could be singled out: *risk* and *uncertain* decision-making contexts (Knight 1921; Penrose 1995). A risk decision-making context is similar to the rolling of a die, which is balanced and fair and has known number of faces. In such a context, it is possible to calculate the probability of the outcomes, specifically “the loss that might be incurred if a given action is taken” (Penrose 1995, 56). An uncertain decision-making context resembles the rolling of a die with an infinite or unknown number of faces, without knowing whether it is balanced and fair. Under these uncertain circumstances, it is impossible to calculate the probability of the outcomes; it is only about “the entrepreneur’s confidence in his estimates and expectations” (Penrose 1995, 56). In uncertain decision-making contexts, there is no valid basis of any kind for classifying instances to determine probability from past experience or statistical calculation (Knight 1921). Hence the key difference between risk and uncertainty: in uncertain contexts, the mean and variance of the probability distribution of outcomes are not known before a decision is made (Alvarez and Barney 2005).

For the purpose of this chapter, I define uncertainty as “any lack of sure knowledge about the course of past, present, future, or hypothetical events” (Downs 1957, 77) and view *uncertainty and newness of an imagined future venture as two sides of the same coin* (Dholakia and Turcan 2013). I side with Knight (1921, 268), who argues that “[w]ith uncertainty absent, man’s energies are

devoted altogether to doing things; ... [w]ith uncertainty present, doing things, the actual execution of activity, becomes in a real sense a secondary part of life; the primary problem or function is deciding what to do and how to do it". At the end of the day, it is not the measurable risk but the immeasurable uncertainty that constitutes the basis for pure profit (Casson 1990).

The degree of newness and uncertainty define the *existing state of knowledge* within given temporal and contextual boundaries. From the sociology of knowledge perspective, I view the pursuit of imagined future ventures as purposive social action (Merton 1936). The anticipation of the consequences of purposive social action depends on the existing state of knowledge (Merton 1936). Merton (1996) distinguishes between two types of consequences or functions: manifest and latent. Merton (1996, 82) defines functions as "observed consequences that make for the adaptation or adjustment of a given system" and distinguishes between *manifest functions* and *latent functions*, the former referring to intended and recognized consequences, whereas the latter refers to unintended and unrecognized consequences. Merton (1936) further maintains that these consequences may be anticipated or unanticipated, and/or desired or undesired, although not always undesirable, effects.

Manifest functions are expected to be observed in risk decision-making settings, latent functions in uncertain decision-making settings; although, to a degree, they may also be observed in risk decision-making settings. Latent functions produce a greater increment in knowledge than manifest functions, produce paradoxical results, as well as represent "greater departures from "common-sense" knowledge about social life" (Merton 1996, 93). Whether unintended, unrecognized, unanticipated, or undesired consequences are a function of ignorance and knowledge that guide actions and behaviors under uncertainty and a high degree of newness (Knight 1921; Merton 1936). As forewarned by Knight (1921, 318, emphasis added), "though we cannot describe a *new invention* in advance without making it, nor say what quantity and quality of new natural productive capacity will be developed and where, yet it is possible in a large degree to offset ignorance with knowledge and behave intelligently with regard to the future". The formation, rapid and dramatic inflation, and bursting of bubbles that have become part of our modern economic history demonstrate that it is nearly impossible in such temporal and contextual boundaries to offset ignorance with knowledge at hand and to behave intelligently (see, e.g., Dholakia and Turcan 2013, 2014).

Nowadays, we live in the late-post-positivism era that is based on and characterized by *ignorance*. Recent global trends in politics (the rise of populism and nationalism in the EU, Brexit, and the election of the US president), science and technology (GM crops, nuclear energy, fracking, global warming,

artificial intelligence), health (eating disorders, immunization, resistance to antibiotics), and society (mass migration, extremism, and terrorism) support this assertion. Most of these trends are characterized by a high degree of newness and uncertainty, unintended, unrecognized, and unanticipated consequences, most of the time with negative signs and negative social impact.

Indeed, ignorance contributes to the emergence of incompatible differences among various social groups. In fact, Merton's (1945, 367) caveat that "with increasing social conflict, differences in the values, attitudes and modes of thought of groups develop to the point where the orientation which these groups previously had in common is overshadowed by incompatible differences" is still valid today. That is, in the absence of knowledge at hand about newness, as well as the means and capabilities to imaginably obtain respective knowledge, it is ignorance of the past, present, and future that drives human action. Ignorance refers to the past, present, or future conditions or events; it consists of the absence or distortion of true knowledge (Moore and Tumin 1949) and is socially constructed and negotiated (Smithson 1985). Smithson (1985, 156) distinguishes between two types of ignorance: *meta-ignorance*, that is, "ignorance of one's own ignorance" and *conscious ignorance* which is the "necessary (although not sufficient) prerequisite for positive learning or discovery" (see also Loasby 1976).

To summarize, from a sociology of knowledge perspective, entrepreneurship is about a journey from the nonexistence to existence of new knowledge. It is about the creation of an imagined future venture or new venture idea defined as the emergence of a justifying personal belief toward an opportunity. Whether the new knowledge is a *new* idea, ideology, thought, belief, sentiment, myth, ignorance, product, service, technology, industry or sector, market, form of organizing, bundle of resources or capabilities, category, or organization practice, entrepreneurs have a challenge to legitimate such types of new knowledge that eventually become or may become institutionalized. The next section introduces a legitimation typology to frame the discussion around "the journey from non-existence to existence of new knowledge", as well as the process of creation and legitimation of newness.

Legitimation Typology

Counter to Berger and Luckmann (1966, 110), who view legitimation "as a 'second-order' objectivation of meaning" and institutionalization as a "first-order" objectivation of meaning, I advocate for a reverse order of objectivation of meaning to fully appreciate the entrepreneurship phenomenon. That is, I propose to

consider legitimation as the first-order objectivation of meaning, while considering institutionalization as the second-order objectivation of meaning when researching entrepreneurship. Berger and Luckmann (1966, 72) suggest that “institutionalization occurs whenever there is a reciprocal typification of habitualized actions by types of actors”, that “any such typification is an institution”, “institutions always have a history”, and leave to legitimation the role of explaining and justifying the institutionalized first-order objectivations. This approach assumes the following objectivation process: habitualization, typification, institutionalization, and legitimation of an action. It also assumes the existence of a shared history. In other words, it assumes that an action will be habitualized or become a pattern or routine in the course of a shared history before it is mutually typified and eventually institutionalized.

Researching entrepreneurship suggests a different order of objectivation. Without legitimation first, habitualization is not possible in the pursuit of a new venture with a high degree of newness in an uncertain decision-making setting with no historicity and in which entrepreneurs can expect with *certainty* unintended and unrecognized consequences. Moreover, in such circumstances, reciprocal typification may precede habitualization, both requiring legitimation. In the following, I put forward a legitimation typology to frame the discussion around legitimation as the first-order objectivation of meaning. Herein, I define legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, beliefs, and definitions” (Suchman 1995, 574).² To construct a legitimation typology, I employ Glaser’s (1978) method of constructing typologies. Typologies are based on differentiating criteria, for example, being internal or external to a concept, or being its dimensions or degrees. Glaser (1978) distinguishes between two methods of constructing typologies: by reduction and subtraction. I employ the former whereby one cross-tabulates the internal or external distinction of a concept moving from criteria to typology. In this process, one dimension might represent, for example, the life continuum of a venture: young vs. old, start-up vs. established, success vs. failure, or still-in-business vs. out-of-business. The other dimension might be related to a unit of analysis and represent its continuum by using appropriate coding families (Glaser 1978) or logical simplification (Dubin 1978), for example, total vs. partial, dependent vs. independent, or uncertainty vs. risk.

The legitimation typology is rooted in several research streams of the legitimacy literature. One research stream focuses on the creation and legitimation of *new ventures*, whereas the other focuses on the maintenance of legitimacy in already *established ventures* (Johnson et al. 2006; Uberbacher 2014). The other

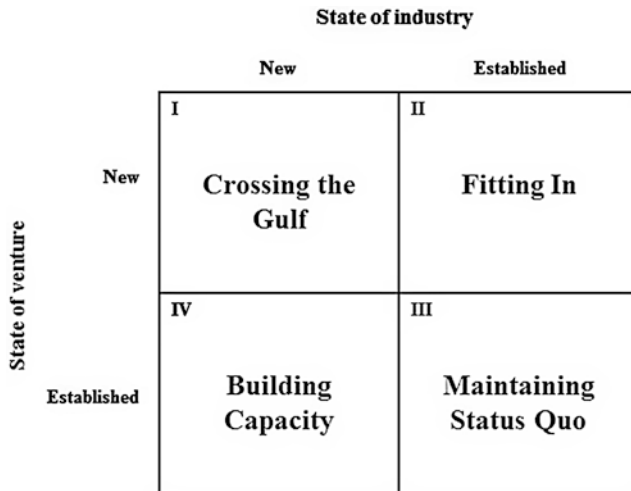


Fig. 20.1 Legitimation typology

research stream distinguishes between new ventures that emerge within an *established industry* and those that emerge within a *new, emerging industry* (Van de Ven and Garud 1989; Aldrich and Fiol 1994; Forbes and Kirsch 2011). I cross-tabulate the state of a venture (new vs. established), and the state of an industry that venture operates in (new vs. established), to construct the legitimation typology (Fig. 20.1). Four types of legitimation are generated as a result: *Crossing the Gulf* (quadrant I), *Fitting In* (quadrant II), *Maintaining Status Quo* (quadrant III), and *Building Capacity* (quadrant IV). *Although naming and interpreting these four intersections may vary, I posit that each of these four types defines the major or the key concern of the respective intersection.*

Quadrant I is the boiler-house of economic innovation, where new ventures are set up to introduce new industries to the economy (Burr 2006; Dholakia and Turcan 2013, 2014; Khaire 2014; Turcan 2012, 2013). *It is characterized by uncertain decision-making settings, a high degree of newness, and respective latent functions.* In quadrant I, initially, no one has the necessary industry knowledge, skill, or experience (Lounsbury et al. 2003; Lounsbury and Crumley 2007; Santos and Eisenhardt 2009; Navis and Glynn 2010; Khaire 2014). Key stakeholders cannot place a value on something they do not understand nor perceive to be conceptually coherent (Suddaby and Greenwood 2005). There are no players to bolster and reinforce each other through cluster effects. There may not yet be a local market for the proposed products and services, let alone an export market that would be willing to buy from an unproven source. If these were in place in the form of an embryonic industry, perhaps one could strategize how to optimize and

grow it. Hence, the main concern of the intersection: how does one cross the gulf between no industry and an embryonic industry?

One of the first attempts to conceptualize the emergence of new industries was made by Van de Ven and Garud (1989) and Aldrich and Fiol (1994). Van de Ven and Garud (1989, 2000) argue that the emergence of a new industry is the result of “cumulative achievements of a new “community” of symbiotically related firms and actors who, through individual and collective action, invest resources in and transform a technological invention into a commercially viable business”. Having identified two levels at which the emergence of an industry could be studied (individual firm or entrepreneur level, and aggregate, system level), Van de Ven and Garud (1989) suggest exploring the motivations, purposeful intentions, and business ideas of entrepreneurs aimed at creating new industries. Aldrich and Fiol (1994) extend Van de Ven and Garud’s model suggesting that new ventures and new industries lack *cognitive* and *socio-political legitimacy*, defined as knowledge about the new activity and what is needed to succeed in an industry, and as the value placed on the new activity by cultural norms and political authorities, respectively. Their model, however, does not capture the process of (co)-*emergence* and (co)-*legitimation* of new venture and new industry, and assumes the presence of emerging competition as well as of sophisticated institutional context—this gap remains in the literature.

In their recent study, Turcan and Fraser (2016) explored the (co)-*emergence* and (co)-*legitimation* of new venture and new industry and put forward a process theory of legitimation³ that explains the process of change from an initial condition in which an industry does not exist to a final condition in which it is institutionalized and theorizes that “unless at least one new venture achieves legitimacy threshold in a new industry there is no possibility for that industry to become institutionalized”.⁴ That is, the initial catalyst is a new venture that is the seed for the birth of the new industry. A necessary, albeit not sufficient, condition for an industry to emerge—be created and legitimated, and eventually institutionalized—is for at least one new venture to achieve the legitimacy threshold. For a new venture’s activities to be repeated frequently and become a pattern, that is to be habitualized, there is a need to typify these activities first at the macro, mezzo, micro, and international levels (see also Uberbacher 2014; Bitektine and Haack 2015; Suddaby et al. 2017). In uncertain decision-making settings with a high degree of newness (quadrant I), the legitimacy threshold at micro-, meso-, and macro-levels is also unknown/uncertain. Acquiring cognitive and socio-political legitimacy as well as the legitimacy threshold at these three levels becomes a complex and complicated process, though necessary to cross the gulf between a state of no industry and embryonic industry (see Vignette 20.1; also, Forbes and Kirsch 2011).

Vignette 20.1 On New Industry Creation and Legitimation

In 2000, Norman M. Fraser started the first professional software development business in the Republic of Moldova. Almost a decade of institutional capacity building had created a large pool of unemployed computer scientists in the country. With its readily available low-cost programmers, good levels of English language ability, and its being situated at most only two time zones away from Western European markets, Moldova was an obvious place to plant an offshore software development business.

Obvious from a UK perspective, perhaps, offshore outsourcing was well established. But from a Moldovan perspective, it was far from obvious. Initial reactions to Fraser's start-up activities assessed it somewhere on the spectrum between "folly" and "scam". To the average educated Moldovan, the idea of developing software in Moldova for world markets lacked cognitive legitimacy (it didn't make sense), and it lacked socio-political legitimacy (it was seen to have no merit for the community). Lack of legitimacy makes everything more difficult than it should be: even persuading unemployed people to allow themselves to be hired!

Fraser and his Moldovan colleagues invested considerable effort, over a period of years, networking with politicians, NGOs, business leaders, opinion formers, and journalists, promoting the rationality, feasibility, and benefits of export-oriented software services, and advocating for legislative reform to enable the growth of the sector. Value-added tax (VAT) legislation, for example, made no provision for the possibility that knowledge products developed in Moldova could be delivered to a customer in another country without having to pass through customs. A number of lawsuits followed, all the way to the Supreme Court, aimed at clarifying and interpreting the application of VAT (i.e., purchase tax) to software exports. At the end of the day, the Supreme Court ruling, which was in favor of the new venture, became industry standard and later part of ICT law that regulated the creation of the software sector in the country.

Soon after starting the business in Moldova, Fraser was summoned to see the Deputy Prime Minister and asked to explain what on earth he was up to and how it was possible that this new business had started yielding more tax revenue than any other in Moldova. A senior member of the government might be expected to greet such a windfall to the exchequer with enthusiasm, but the perceived lack of legitimacy provoked exactly the opposite reaction.

Several years later, after a sustained program of legitimacy building, Fraser was summoned by the Minister of Economy to be told that the government would be introducing targeted tax reliefs for IT companies—effectively turning off a now valued fiscal revenue stream—because the sector had come to be seen as a key target for inward investment and growth. Short-term gain would be waived to accelerate development of this important new industry. Legitimacy had been achieved, and today, the IT sector is one of the most dynamic sectors of the Moldovan economy, contributing around 10% of gross domestic product (GDP).

Source: Derived from Turcan and Fraser (2016)

The new catalyst venture may employ various legitimation strategies in order for their activities to be typified and habitualized, such as robust design, persuasive argumentation, political negotiations, legal disputes, technology legitimation, symbolic manipulation, and categorization to establish cognitive and socio-political legitimacy and the legitimation threshold (Hargadon and Douglas 2001; Kennedy and Fiss 2013; Turcan 2012, 2013; Turcan and Fraser 2016; Zott and Huy 2007). The effect of these strategies on the acquisition of cognitive legitimacy and socio-political legitimacy of the new venture is path-dependent, with cognitive legitimacy leading to socio-political legitimacy, and then to the new venture legitimacy threshold or habitualization (Turcan and Fraser 2016). The new venture legitimacy threshold is achieved mainly through the acquisition of cognitive legitimacy. According to Turcan and Fraser (2016), at the moment when the new venture achieves its legitimacy threshold, the industry has not yet acquired cognitive and socio-political legitimacy and thus does not have substantive existence beyond the new venture. On the other hand, the acquisition of cognitive legitimacy by the new venture may lead to the creation of industry norms, values, and practices, which in turn may lead to cognitive and socio-political legitimation of the industry. According to Turcan and Fraser's (2016) process theory of legitimation, the new venture legitimation threshold defines new industry norms, values, and practices that in turn mediate the acquisition of cognitive legitimacy and socio-political legitimacy of that industry, and the acquisition of socio-political legitimacy in a new venture is prerequisite to the acquisition of the industry legitimacy threshold, and hence industry institutionalization.

Being characterized by uncertain decision-making settings, a high degree of newness and respective latent functions, quadrant I is not only the boiler-house of economic innovation, but it is also the boiler-house for hype behavior about a new knowledge (Turcan 2011; Dholakia and Turcan 2014). In this context, hype is defined as the overall sentiment of the environmental context, within which the firm is embedded, about the future (Turcan 2011). When the availability of a new knowledge to the market and the value of that new knowledge are unknown/uncertain, stakeholders involved in creating this knowledge tend to hype its availability and value. Four types of hype could be distinguished: delusional optimism, overoptimism, pessimism, and realism talk (Turcan 2011).⁵ The first two are seen as engines of capitalism (Kahneman 2011). It is when hype behavior is reinforced by positive signals coming from meso- and macro-levels. When sentiments about the future of a new knowledge coming from meso- and macro-environments are positive, stakeholders are delusionally optimistic about that new knowledge. When negative or correcting signals emanating from the macro-environment about

a new knowledge are ignored, stakeholders become overoptimistic on the basis of positive signals that continue to emanate from meso-environment. In this context, Dholakia and Turcan (2014, 75, original emphasis) define “knowledge creation in uncertain decision-making settings as the emergence of an *ignorant believe* [sic] toward a new asset”. Such ignorant belief toward a new knowledge makes stakeholders collectively blind to uncertainty, forcing them to find meanings and patterns about the availability and value of the new knowledge. Kahneman (2011) introduces the concept of a range of uncertainty—lower end and upper end—that is, when stakeholders underestimate or overestimate respectively the availability and value of new knowledge. Kahneman explains his concept by an example of drawing without a ruler (1) a two-and-a-half-inch line starting from the bottom of a page (lower end, underestimate the length) and (2) a line starting from the top of the page until two and a half inches from the bottom (upper end, overestimate the length). However, as argued by Dholakia and Turcan (2014), the range of uncertainty concept is based on the assumption that stakeholders involved in “drawing” know what “two and a half inches” and a “line” mean or are. This assumption has an implication, for example, in the context of radical innovation or entrepreneur-investor relations under uncertainty; when employing such an assumption, decision-makers tend to evaluate performance based on outcomes (two-and-a-half-inch length or relatively straight line) such as management-by-objectives rather than based on processes (drawing) such as *just* processes (Tyler 1991, 2000; Sapienza and Korsgaard 1996; Turcan 2008).

Almost all entrepreneurship research is conducted in quadrant II. Herein, while the new venture itself has to be innovated, the sector in which it operates does not. Quadrant II is about legitimation of new ventures and new organizational forms and ways of organizing in an environment that is established, and characterized by *risk decision-making settings, historicity, and respective manifest functions*. The major concern at this intersection is about “fitting-in” or “following the rules” as a path of least resistance (Human and Provan 2000; Goldberg et al. 2003; Wilson and Stokes 2004), bridging diverse stakeholders, and theorizing new forms and practices (Maguire et al. 2004; Delmestri and Wezel 2011). New ventures strive to acquire internal and external legitimacy in order to “blend in” and eventually secure future growth and survival (Delmar and Shane 2004; Kim and Pennings 2009; Lu and Xu 2006; Rao et al. 2008). Some ventures even use illegitimate actions to obtain endorsement and support from their stakeholders (Elsbach and Sutton 1992). Policy and development organizations focus much of their activity in this quadrant, picking potential winners and investing in them to grow the industries that have already been proven and thus risk-reduced in that economy.

The extant research suggests that in order for a new venture or new form or activity to reach a legitimacy threshold or become more of a taken-for-granted practice at this intersection, they have to be theorized (Drori et al. 2009; Kennedy and Fiss 2013; Navis and Glynn 2010; Suddaby and Greenwood 2005). Theorizing is an act that requires sustained repetition and iteration to elicit a shared understanding of the new form or activity (Greenwood et al. 2002). A number of critical legitimation strategies may be available to new ventures (see, e.g., Turcan 2012): developing institutional vocabularies, bridging diverse stakeholders, theorization of new practices (framing problems and justifying new practices and political negotiations) and change, and institutionalization of new practices (by attaching them to preexisting organizational routines and reaffirming their alignment with stakeholder values on an ongoing basis). As part of the ongoing concern to fit-in, new ventures have to cope with the legitimacy paradox. On the one hand, new ventures have to comply with and follow the rules of an existing game, trying to take advantage of incentives and avoid sanctions. At the same time, new ventures have to be (have) different(ly) and differentiate themselves from existing ventures to be competitive. Recent trends in politics such as the election of the US and French presidents refuted this legitimacy paradox by breaking the intimate relationship between “following the rule” and “behaving differently”. Displaying high degree of newness, Donald Trump and Emmanuel Macron entered respective electoral political races breaking and/or disregarding existing political systems and establishments as well as the election systems and processes. Such newness (of presidential candidates) created an uncertainty that existing stakeholders—political opponents and their respective supporting institutions—were unable or unwilling to tolerate. As a result, an ignorant belief toward such newness emerged, whereby the existing stakeholders searched for or created meanings and/or patterns seeking to stop legitimation and eventual typification and habitualization of this newness. Although Donald Trump and Emmanuel Macron employed different legitimation strategies to get elected, without any changes made to the existing political and electoral systems, whether their newness has been typified, habitualized, and institutionalized remain to be seen.

Quadrant III represents established ventures operating in established industries. Although of interest for legitimacy research, for the purpose of this chapter, however, quadrant III is of little interest, except as a goal to aim for, as it does not represent the domain of entrepreneurship (Davidsson 2016). A major concern of the ventures in this quadrant is to maintain the status quo that is challenged either by insiders or by outsiders. In the face of an introduction of an institutional change, a challenge to existing norms and values, de-institutionalization

and/or de-legitimation of dominant forms and practices (Oliver 1992; Davis et al. 1994; Maguire and Hardy 2009), business ventures in this quadrant would try to maintain and defend their legitimacy (Bitektine 2008), sometimes at all costs. This may be, for example, through manipulation aimed at changing the relative importance of legitimacy dimensions, raising the legitimacy threshold, and altering perceptions of competitors' performance (Bitektine 2008); or through de-legitimation and re-legitimation, especially when it comes to downsizing, rationalization, or turnarounds (Vaara and Tienari 2008; Erkama and Vaara 2010).

Quadrant IV is about institutional entrepreneurship defined as “activities of actors who have an interest in particular institutional arrangements and who leverage resources to create new institutions or to transform existing ones” (Maguire et al. 2004, 657). Multinational companies, nongovernmental organizations (NGOs), and international development organizations such as European Bank for Reconstruction and Development (EBRD) or the World Bank are examples of such actors who may wish to see new industries emerge (Vermeulen et al. 2007; Lawrence and Phillips 2004; Maguire et al. 2004; Munir and Philips 2005; Delmestri and Wezel 2011; Feldman and Lendel 2010; Karnoe and Garud 2012; Colombelli et al. 2014; Foray and Raffo 2014; Lechevalier et al. 2014).⁶ The initial interest to create new industries at this intersection is based on a number of assumptions and expectations.⁷ Manifest functions and ignorance dominate this intersection.⁸ Although market or industry as a field (Fligstein and Dauter 2007) does not preexist, these actors anticipate desirable, intended, and recognized outcomes or effects. They take for granted the reality of expected reciprocal typification and habitualized actions in new, emerging industries. However, an institutional, entrepreneurship-driven attempt at creating a completely new industry by outsiders is typically met with general and effective resistance to change coming from insiders,⁹ local players, who are trying to obstruct or impede outsider-driven institutional change directed at new-industry creation (Vermeulen et al. 2007). De-legitimizing and de-institutionalizing dominant forms and practices become a real challenge since legitimacy implies the ability of an institutionalized practice or structure to withstand challenges based on purely instrumental grounds (Davis et al. 1994). Not only new structures and new bodies of knowledge are needed to support a de-institutionalization and/or de-legitimation process but also new discourses and meanings (Maguire and Hardy 2009; Kennedy and Fiss 2013). To support an institutional change, as an outsider to a new industry, institutional entrepreneurship actors typically invest in new structures and new knowledge but leave the investment in legitimation—discourses and meanings—to insiders. Hence, the standard response from these

actors is to rely on enabling actions, such as investment in building capacity: *if we build it, they will come*. Many billions of dollars a year are spent on capacity building: knowledge and skills training, programs to strengthen institutions, and grant aid for infrastructure. But capacity building is a blunt instrument. There is little discernible correlation between the amount invested in capacity building and the creation of new industries, as revealed by international development organizations (Vignette 20.2). Worse, the law of unintended

Vignette 20.2 Ignorance and Manifest Functions of Institutional Entrepreneurship

As part of the Theory Building Research Programme (www.tbrp.aau.dk), specifically that of legitimation theory building program, Turcan and Fraser were presenting their findings and applying for funding to various international donor organizations. A pattern was emerging when discussing the actions of these actors in creating new industries in developing economies. The current approach to international development is to avoid investing in new ventures that drive the creation of new industries (quadrant I) as the uncertain profile of these ventures makes them effectively un-investible. Instead, development organizations and other institutional entrepreneurship actors invest in capacity building for as-yet non-existent or embryonic industries. According to one of the chief economists of one of the international development organizations (based on personal communication):

Recent investments in capacity building aimed to create new industries in [two countries] have yielded zero results, triggering a brain drain of qualified workers who were forced to migrate to find suitable work to match their acquired capacities.

As part of their funding portfolio building, Turcan and Fraser applied for funding to an international development organization for a project to investigate the process of creation, legitimation, and institutionalization of two embryonic industries as well as of respective new ventures located in respective industries. The project was declined on the grounds that:

Given that [the new ventures] are almost non-existent in [the country], the subject of research is not present. The project seems to be a development project rather than ... a capacity strengthening project.

Such a reaction to their project is perhaps not surprising, since it was set to challenge a currently held assumption by international development organizations that investment in capacity building contributes to the creation of new industries. It has to be mentioned that the project application was accepted by the institutional entrepreneurship actors in the target country but rejected by the respective international development organization. Dismissing empirical evidence and continuing to throw good money after bad money is an example of meta-ignorance that dominates institutional entrepreneurship at this intersection.

consequences intervenes. Training intended to generate the talent pool from which industry innovation will emerge, ends up driving emigration. What else should we expect if people are trained for non-existent jobs? Ironically, capacity building drives the brain drain, reducing a nation's capacity.

Conclusion

The proposed typology of legitimation offers a holistic approach to the study of legitimation at venture and industry levels, opening a number of opportunities to research entrepreneurship from the sociology of knowledge perspective. Given the exponential rise of radical and disruptive innovations in all spheres of life—political, social, economic, science and technology, and health—it is critical for entrepreneurship researchers to understand how new ventures (quadrant I) or existing organizations (quadrant IV) contribute to the creation, legitimation, and institutionalization of new industries or markets. These fundamental questions remain largely unanswered (Ahrne et al. 2015; Turcan and Fraser 2016). Following recent trends of late globalization (Turcan 2016), a further fruitful area for entrepreneurship research is to understand how imagined future ventures or newness not only emerge but also win within the existing industries or social authorities (quadrant II), disregarding or bending the extant rules of the game, norms, and values (see, e.g., Turcan and Juho 2016). It emerges that one of the factors that fuels such behavior is ignorance. As maintained by Smithson (1985, 153), “there are organized settings and occasions wherein groups have vested interests in the production and maintenance of ignorance of various kinds”. Process research (Ahrne et al. 2015) is needed to explore empirically the above phenomena in all quadrants, employing, for example, collaborative ethnographic (e.g., Ngunjiri et al. 2010; Turcan and Fraser 2016), autoethnographic (e.g., Ellis et al. 2011; Turcan 2019), historical archives (Forbes and Kirsch 2011), or effectuation (Sarvasvathy and Dew 2005) approaches.

I would like to conclude the chapter by moving to a higher level of theorizing: by moving from the proposed legitimation typology that could be seen as a middle-range theory (Merton 1996) toward a *grand theory of legitimation*. For this purpose, I employ the construction of typologies by subtraction (Glaser 1978), whereby I move from typology—Crossing the Gulf; Fitting in; Maintaining Status Quo; and Building Capacity—to criteria and dimensions of *knowledge* and *social structure*, new and existing (Fig. 20.2). This grand theory of legitimation could be seen as a *bridge* between the *older sociology of*

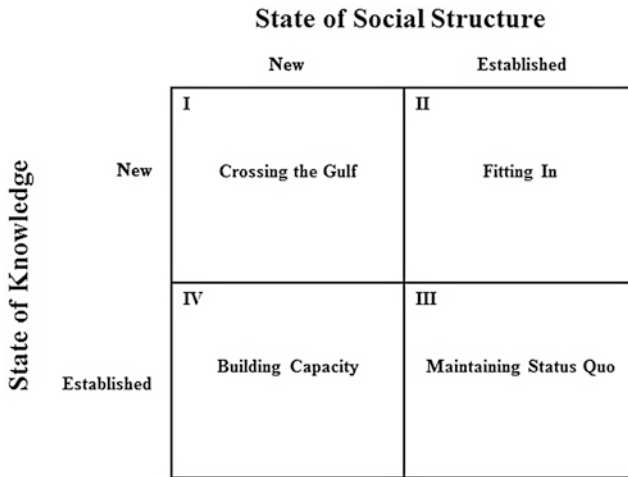


Fig. 20.2 Grand theory of legitimation

knowledge that, following Mannheim, asks how social location of individuals and groups shapes their knowledge and a *new sociology of knowledge* that asks how kinds of social organization make whole orderings of knowledge possible (Swidler and Arditì 1994). Future research will refine the naming and interpretation of these four types, leading to new, novel understandings of major concerns at these respective intersections.

Quadrant I is defined by latent functions in which the main concern is how new knowledge or newness co-emerge with new social structures, how to cross the gulf from no social structure to an embryonic structure and how, in this process, the new knowledge gets legitimated and institutionalized and then how it contributes to the legitimation and institutionalization of the new social structure. Another area for research is to study the effect of latent functions on, for example, collective behavior and runaway sentiments. Being dominated by manifest functions, the main concern in quadrant II is how new knowledge or newness fits in the existing social structures. One promising area for research is to study how power through authority, manipulation, and coercion produces and maintains ignorance aimed at legitimating and institutionalizing the new knowledge. As argued by Swidler and Arditì (1994, 322), “knowledge and power are intimately related because power allows people to enact realities that make their knowledge plausible”. Future research is needed at this intersection to study not only this intimate relation between power and knowledge but also the intimate relation between power and ignorance. Overall, whether ignorance is part of (new) knowledge or whether both are two sides of the same coin, *being*, is an interesting ontological question that warrants future research. The relation between ignorance and newness and uncertainty is not clear either.

Does uncertainty fuel ignorance? Or maybe ignorance stimulates uncertainty. Or indeed it is, perhaps, a source for creativity, learning, innovation, entrepreneurship, and growth. Quadrant III is defined by manifest functions and the main concern herein is how existing knowledge maintains its status quo within existing social structures. An interesting, though under-researched area of inquiry at this intersection is how, why, and what illegitimate actions insiders deploy to defend and maintain their status quo. The main concern within quadrant IV is how existing outsider knowledge fosters building capacity aimed at creating new social structures. Whether it is defined by manifest or latent functions will depend on the context in which new social structure is being created, legitimated, and institutionalized, for example, developed or developing countries. As with most of public policy, development activities happen at this intersection; this is therefore a needed area for inquiry to study the effects of building capacity on the creation of new social structures. However, at this intersection, capacity building is necessary but not sufficient to give birth to a new social structure that lacks cognitive and socio-political legitimacy (see also, Turcan and Fraser 2016). According to Turcan and Fraser (2016), capacity building may lead to unintended, unrecognized, unanticipated, or undesired, consequences. Building on Turcan and Fraser (2016), I conjecture that there is a need for investment in programs of new social structure legitimacy building in pursuit of public policy development goals. Future research at this intersection could examine the intimate relationship between building capacity and legitimacy building, including, for example, how such programs of new social structure legitimacy building mitigate the negative effects of capacity building on the creation of new social structures. It is also critical for future research to investigate the phenomena of *de-institutionalization* and *de-legitimation* of new and existing knowledge and social structures—phenomena that are present to various degrees in all quadrants of the theory.

Notes

1. The concept of knowledge has been, over the years,—as far back as Plato and Aristotle—unpacked, broken down into its conceptual components: *true, justified, belief* to demonstrate or refute, they are necessary and sufficient to explain “knowledge”. For a recent discussion of the concept of knowledge, see Unger (1968), Williamson (2000), and McGinn (2002).
2. See the following for a recent (1) review of legitimation strategies (Turcan et al. 2012); (2) review of legitimation of new ventures (Uberbacher 2014); (3) development of theory of legitimacy process (Bitektine and Haack 2015); and (4) clarification of legitimacy construct (Suddaby et al. 2017).

3. See also Khaire (2014) and O'Neil and Ucbasaran (2016) for recent attempts to develop an empirically based process model of legitimation.
4. In the context of sociology of knowledge, habitualization could be seen as the new venture legitimacy threshold that is a point “below which the new venture struggles for existence and probably will perish and above which the new venture can achieve further gains in legitimacy and resources” (Zimmerman and Zeitz 2002, 427).
5. For a detailed discussion about the typology of hype, see Turcan (2011); for a more detailed discussion on the relation of typology of hype and bubble formation and burst, see Dholakia and Turcan (2014).
6. This is in line with Fligstein (2001) who maintains that although the creation or organization of industries or markets is a political process, not only the states, but other organizations can also create or organize new industries or markets.
7. For the purpose of this chapter, I left out the discussion of power (its nature, including authority, manipulation and coercion) that together with legitimacy are the two concepts that are necessary to understand habitualization, typification, and institutionalization of knowledge (Wright Mills 2000).
8. Variability of this proposition depends on the context in which institutional entrepreneurs attempt the creation of new industries. For example, ignorance, power, and respective manifest functions will vary in developed and developing, emerging economies.
9. Merton (1972) introduces an insider-outsider doctrine, arguing that “the Outsider has a structurally imposed incapacity to comprehend alien groups, statuses, cultures, and societies. Unlike the Insider, the Outsider has neither been socialized in the group nor has engaged in the run of experience that makes up its life, and therefore cannot have the direct, intuitive sensitivity that alone makes empathic understanding possible” (p. 15).

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21

Ethics Perspective on Entrepreneurship

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Introduction

Entrepreneurs are often praised for their contributions to the development of economic life. Yet little is known about the ethics of entrepreneurship. This is problematic since many ethical problems of society and business life become visible in the life and actions of the entrepreneur. Many successful business leaders who started out as entrepreneurs are greatly admired and recognized, while a closer look often reveals that these same business leaders are willing to do almost anything to succeed (Hannafey 2003). When successful, there is an almost unbounded interest in what specific traits made these entrepreneurs unique and distinct. In such circumstances, entrepreneurs are hailed for their great success and for their stubbornness in pursuing ideas and actions against all odds. Business biographies of, for example, Alfred P. Sloan, Lee Iacocca, and Steve Jobs contribute to the great man theory of business managers and leaders, while it is rarer to see the events as the results of complex and collective interactions (Spector 2016). Worse, the economic success of such people

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and of entrepreneurs occasionally overshadows serious ethical flaws, which are also part of the darker and darkened histories of great businesses and entrepreneurs.

This mirrors a tendency to focus on personal traits that characterize and distinguish the most able individuals from the rest of humanity. It is, however, important to look not only at actions as a result of personal attributes but also at the specifics of the situations in which entrepreneurship is embedded. Entrepreneurs are neither ethically superior nor ethically flawed in comparison with other “normal” people. What promotes ethical or non-ethical action belongs just as much to problematic and often extreme situations rather than to the moral character of individuals. One adjective is suitable for such situations: they are *precarious*. Precarity describes, according to Judith Butler (2006, 2015), an exposed, insecure, uncertain, and vulnerable position in society.

The neoliberal ethos currently embedded in most economic policies and practices in the Western world has intensified this precarity. This ethos captures an order of reason where all dimensions of economic life are formulated in terms of economic value, practices, and metrics. A reframing of human life into human capitals, financial expectations, and investment opportunity follows a neoliberal ethos (Brown 2015). Self-interest, individuality, and the continuous pursuit of economic gain belong to this ethos. Deregulation, mobility of money and people, technological transformation, and so on, have been accompanied by suspension of rights, downward pressure on wages, and new effective managerial policies, which mean that people are being increasingly exposed to the direct and fluctuating forces of the market economy.

The hero embedded in this neoliberal narrative is the entrepreneur but (s) he also belongs, paradoxically, to one of those groups that tend to be most exposed to precarity. While potential benefits of entrepreneurship are high, the risks are perhaps even higher. To become an entrepreneur is not only to put one's job at stake but implies also to put one's life at stake. Risks connected to family life, income, pension, debt, law, and social network accompany entrepreneurship. Because of the high risks and potential high benefits involved, it is easy to stumble across the threshold between ethical and non-ethical action. The term “precarity” thus highlights the potential risks involved in becoming an entrepreneur which may lead them into a space where survival relies on ethically flawed action.

On the other hand, the governing condition of ethics is also precarity (Butler 2015), along with the willingness to put oneself at risk in uncertain conditions. Entrepreneurship is the epitome of new beginnings. Entrepreneurs have the unique chance to launch new types of services and/or products and even new organizational forms that take active part in forming the future

market, consumer behavior, and the surrounding society. Hence entrepreneurs have the chance to take ethical matters into account and act correspondingly with a potential to create more egalitarian and sustainable organizational products/services and practices that oppose and change some of the critical ways in which today's society works. Entrepreneurs are needed to help solve societal problems concerning unemployment, education, pollution, and so forth. Many entrepreneurs actually start out this way.

Their meeting with the world reveals, however, that entrepreneurs are dependent on a wide range of others as they enter into and navigate an already-made market in which the establishment of relations, value and supply chains, and more or less unwritten rules of commercialization are pivotal to their survival. Entrepreneurs have to manage the schism between managing new beginnings and creativity, on the one hand, and the social validation/evaluation of one's actions being embedded in fossilized ways of doing entrepreneurship, while simultaneously subjected to market forces, on the other hand.

In the present chapter, we scrutinize and discuss such difficult dualisms/complexities of entrepreneurship and explore and pose ways to reflect upon and, perhaps, handle ethical matters of entrepreneurship. The framework of ethics here presented breaks with current trends in business ethics where individualization, self-centeredness, and self-management are increasingly promoted (Deetz 2001). Such tendencies go hand in hand with the norms of the neoliberal competition state (Pedersen 2011) and an advanced liberal state (Karlsen and Villadsen 2008), where individuals are "masters of their own fate". Instead, we emphasize precarity, entanglement, creativity, plurality, and the entrepreneur's answerability and responsibility to act ethically within the chain of activities and events that she/he partakes in as well as toward the surrounding others (the society and world).

It is a holistic ethics that centers on the entrepreneur's reflections on values that affect his or her actions and choices of, for instance, who he or she engages in collaboration with and how. It is an ecological approach that is sensitive toward the particular, the local, and the timely, and shifts from a traditional Cartesian focus on reflective work on the self to how and on what terms people act within specific local surroundings and circumstances. The ethics here presented emphasizes, in other words, the entrepreneur's answerability and responsibility toward creating a better world, thereby shifting the mainstream individual focus toward a collective and worldly focus.

The chapter is organized as follows. First, we give an overview of the literature by introducing three important contributions to ethics: Foucault, Bakhtin, and Arendt combined with Butler, the latter who reworks Arendt's work on ethics. This is accomplished and illustrated in Table 21.1 in the next section.

Table 21.1 Three ethical perspectives on entrepreneurship

	Foucault: ethics of freedom	Bakhtin: ethics of the act and answerability	Butler/Arendt: ethics of action and cohabitation
Relationship between I-other	Entrepreneurs are entangled with the world	Entrepreneurs are entangled with the world in mutual responsive self-other relationship	Entrepreneurs are entangled with the world
Locus of ethics	Entrepreneurs' care of the self	Entrepreneurs and others ought to be mutually answerable for own acts. Ethics is a relational and responsive doing	Entrepreneurs should act together with others. Action is collective. Thus, an individual's act always relies on the support of others
The ontological condition of ethics	The entrepreneur is enmeshed in relations of power that are embedded in discourse	The act is ontologically constitutive of the un-finalizable, incomplete world, self, and other Plurality is the condition of existence. The entrepreneur (and others) has no alibi in being	The entrepreneur is thrown into the historical, spatial, and material conditions of the world Plurality is the condition of existence
Goal of ethics	Entrepreneurs should act according to codes of conduct	Entrepreneurs and others ought to engage in egalitarian, creative dialogue by being answerable in the act and to the other	Entrepreneurs should partake in action for transforming the world
The means of ethics	Technologies of the self in the form of practices for self-awareness or practices of self-formation	Entrepreneurs and others ought to foster centrifugal forces of interaction to contest monologizing and crystallized forms of knowledge	Collective action (networks, alliances, and compromises) that respects the basic plurality of the world of earthly cohabitation

(continued)

Table 21.1 (continued)

	Foucault: ethics of freedom	Bakhtin: ethics of the act and answerability	Butler/Arendt: ethics of action and cohabitation
Organizational practices for improving entrepreneurs' ethical actions	<i>Self-awareness:</i> Personnel counseling Self-examination Group dynamics technologies <i>Self-formation:</i> Dialogues with oneself in relation to action and relations	Plurivocal dialogic spaces that invite a multiplicity of voices Co-creative/coauthoring spaces Cultivation of dialogic wisdom The carnival-experimental spaces where authorities can be contested	Networks and communities and other kinds of spaces of appearance Democratic spaces for negotiation and compromise Project groups, teams, and communities

Second, we draw out the specific issues of interest from the three perspectives presented in Table 21.1. Throughout the work of unfolding the three perspectives, we introduce two vignettes addressing problematic issues of ethics in relation to entrepreneurship. We use the two vignettes as a means to reflect upon and discuss ethical problems and challenges of entrepreneurship and to highlight our own position on ethics. We then draw out the main contributions from the three perspectives and map the future spaces of ethics and of ethical research. This is accomplished by providing three different images of entrepreneurship as they may occur in precarious spaces and in creative spaces.

Overview of the Perspective

The three approaches to ethics are illustrated in Table 21.1. It provides a map that draws out the main characteristics of Foucault's, Bakhtin's, and Arendt's/Butler's ethical contributions. These approaches have been chosen for two main reasons. First of all, each of them makes a specific contribution to our understanding of the precarious situation into which entrepreneurs and their surrounding others are embedded. Hence, they enhance an understanding of the vulnerable position of entrepreneurs standing on the threshold between ethical and non-ethical actions. Second, they specifically address the "I-world" relationship from the normative point of view that we need to be responsible and answerable in our actions and to the world comprising the surrounding others. Even though they share a number of important points, there are however differences in regard to how the authors approach the ethical problem concerning the relationship between the "I" and the "world". These differences

mirror the movement from a concern for the self (Foucault) toward a relational and collective ethics (Bakhtin, Arendt/Butler). In the next section, the three perspectives are unfolded and related to ethics.

Foucault's Ethics of Freedom

Foucault's ethics of freedom is the starting point for our discussions on ethics. Ethics as a practice of freedom (Foucault 1997) is, for him, embedded in particular technologies of the self. These technologies are important for creating a subject from the material and discursive structures of society but still in a way in which the subject appears as a unique subject (Deleuze 2006). The entrepreneurial act can, in other words, be seen as premised and promoted by such technologies of self. History and tradition are here considered as the sources from which we create our subjectivities. At the same time, however, they constitute a problem in reproducing dominant patterns of truth and right. Foucault thus perceives the entrepreneurial subject as enmeshed in relations of power that are embedded in the practices of discourse.

Foucault's power analysis basically leads to reflection on the material and discursive structures that historically have molded our beliefs and values concerning what is true and just (Jørgensen 2007). His explicit ethical writings have some similarity in locating ethics in personal reflection and self-work—what he also calls *the care of the self* (Foucault 1986, 1988) or technologies of the self. Following this ethical position, entrepreneurs should bind themselves to some more or less rudimentary codes of conduct to guide action in order to frame themselves as unique subjects.

The technologies of the self that Foucault identified can be divided into two kinds: practices of the self for *self-awareness* and practices of the self for *self-formation* (Townley 1995). Self-awareness is premised on the belief in an inner self, where the knowledge of the self is achieved by turning inwards toward a true or real self (Townley 1995, 274–275). Such practices are linked to Christianity and were originally used as means for submitting oneself to God. An ethics of freedom for entrepreneurs implies, accordingly, to become self-aware in order to open the self for modification and alteration. Through technologies of the self, like self-examination and confession (e.g., Ibarra-Colado et al. 2006; Edwards 2008), entrepreneurs should become self-aware and modify their behaviors according to criteria set by some external authority: customers, creditors, investors, and other interest groups. In the following, we posit a vignette on a Danish TV serial “The Lion's Den”, which can be seen as an entrepreneurial confession site.

Vignette 21.1 Danish TV Serial on Entrepreneurship “The Lion’s Den”

In 2016, the Danish TV channel DR launched a serial on entrepreneurship named “The Lion’s Den” where entrepreneurs have the chance to present their business ideas to a panel of five possible investors. The investors comprise prominent and experienced Danish businesspeople that are to evaluate the business ideas and possibly make an investment if they find the performances and business foundations interesting and cost-effective/profitable (the panel: Christian Stadil, Birgit Aaby, Tommy Ahlers, Ilse Jacobsen, and Jesper Buch). Next, the entrepreneurs have a short stretch of time to accept or reject the investment offers in which most of the entrepreneurs come to agree to a significantly smaller amount of money and sometimes different investor engagement and/or business terms than they asked for in their presentations.

We find the title of the serial to be spot-on as the participants literally seem to put their heads in the lions’ mouths and often get skinned alive in front of the audience as the panel takes apart the presentations and points out the flaws and weak parts of the entrepreneurial plans as well as the entrepreneur’s performances. On some occasions, the entrepreneur(s) and one or more of the “lions” seem to engage in a happy marriage that benefits both parties and in which the inexperienced entrepreneur gets the benefit of the investor’s experience, risk capital, and network. Nevertheless, after viewing the series, it becomes evident for us that the possible fulfillment of the investors’ interests, such as return on investments and profitability, are central elements that overshadow the more value-based and ethical dimensions such as the product’s or service’s potential to create a more sustainable and ethical world. It also seems that the entrepreneurs’ benefit and long-term consequences of the deals are left rather unclear and deprioritized, possibly due to reasons relating to audience ratings.

The entrepreneurial experts are here the ones who receive and evaluate the potential entrepreneurs’ performance and give advice in order to improve or support them. The entrepreneurs are skinned alive and exposed. The difference between confession and this arrangement is, however, that performances are evaluated in a public space. Furthermore, there is, as the saying goes, not a place in heaven for everyone; only the chosen ones are admitted. The entrepreneurs participate on a voluntary basis in this confession in order to become good and proper entrepreneurs. The basis for the code of conduct is very clear in this example: money, investment, and profitability. To become a proper entrepreneur, one has to follow the rules of the market.

The alternative to self-awareness is self-formation. It is derived from the ancient Greeks. The care of the self is, here, the care of activity (Townley 1995, 275). It entails being aware of the detail of what one does, the daily routines of what one thinks and feels. Furthermore, it sees the self as formed through active engagement with others and the world where ethical action is judged on one’s performance with others. The codes of conduct that one

submits to in self-formation are more or less rudimentary prescriptions of what the good life is. While the image of the entrepreneur according to self-awareness is that of the obedient and docile actor who submits him- or herself to the logics of the market, self-formation is about creativity and the unique formation of self. Careful attention to the details of what one does is ultimately comparable with the meticulous attention that artists, artisans, and craftspeople display in their everyday living. The Lion's Den confessional site is not comparable with such a creative space.

Overall, the vignette illustrates an important problem concerning entrepreneurship. The problem is that the entrepreneur, at the outset, is submitted and subordinated to others. This submissive position is intensified by the precarious and vulnerable situation he/she is in. There is an obvious risk that one is guided into a psychological cage made by others instead of sparking the entrepreneurial spirit. The risk is that the entrepreneur loses touch with his or her original story in the search and hunger for money. Instead of a collective and relational space in which people can experiment and be creative, the Lion's Den is a symbol of a fully individualized and competitive market where it is every man/woman for her or himself. The space created by the Lion's Den is therefore, perhaps, not the best place for self-formation, which was what Foucault originally associated with the practice of freedom. The market is an unfriendly and precarious space. The second vignette illustrates this very clearly.

Precarious Spaces of Entrepreneurship

Vignette 21.2 tells the story of an already-established entrepreneurial business that produces a wind-noise-reducing foam for headset microphones. The story reflects the vulnerability of entrepreneurs, and the surrounding others, partaking in the ongoing chain of collective interactions and events. The vignette illustrates the relational vulnerability and precarity of both the entrepreneur and the surrounding others involved in the uncertain entrepreneurial processes of sharing, exploring, and commercializing business ideas. The dialogical space created in the beginning between Kenneth Tram (KT) and Kenneth Plummer (KP) involved a mutual exposure to risk-taking when sharing ideas and assessing their potential in relation to a ready-made market. The entrepreneurial rules of the ready-made market imply running the risk that the product is copied, particularly in the case of an easily imitated, low-technology product. This was actually the argument used by the panel for turning down investment into Phoamy.

Vignette 21.2 The Wind-Noise-Reduction Headset Microphone Story

KT participated in “The Lion’s Den” in 2016 in order to attract capital for the further development of his business based on the product Phoamy, a foam to be used for headset microphones in order to reduce wind noise. Despite the fact that the board of The Lion’s Den liked the presentation of the business idea, they decided not to invest in the company. Since then, Phoamy has, however, been quite successful in increasing sales and strengthening its position within the business-to-business (B2B) segment (Trendsonline.dk 2016). In this way, moving on after the disappointing outcome of his participation in The Lion’s Den, KT continued to seek out and exploit new business opportunities.

In June 2017, KT stated on Facebook that his product idea had been stolen and copied by another company, Ronald A/S. At that time, KT claimed to have discovered that Netto, a discount supermarket, started to sell a cheap copy product of low quality and price supplied by a Chinese company. The CEO of Ronald A/S turned out to be KP, who earlier had shown interest in the product during business meetings and product presentations and even, for some time, had kept the product in his possession while considering selling it. KT ends his story on Facebook by accusing KP of theft and of destroying Danish entrepreneurship.

As the story starts to circulate on Facebook and hits the news in various media, the supermarket, Netto, decides temporarily to remove the product from the shelves due to ethical considerations (Ingvorsen and Nielsen 2017). The conflict progresses on social media as KT and KP argue and provide additional evidence to back up their individual stories and guilt/innocence. Central evidence provided by KP, however, questions KT’s credibility and leads to his withdrawal of the accusation of theft, even though he maintains that KP was heavily inspired by his business ideas (Ingvorsen 2017b).

The story carries consequences for all of the participants involved. At the time of the withdrawal, KT’s Facebook accusation had already been shared 17,785 times. Furthermore, fueling suspicion and speculation, the media begins to publish other accusations against KP and Ronald A/S for stealing entrepreneurial business ideas. According to DR News, KP and his company had to reach an economic settlement four times in 2010 (Ingvorsen and Nielsen 2017). In several additional cases, Ronald A/S went to court in order to be acquitted.

In the case of the noise-reduction headset microphone, and as a matter of principle, KP and Ronald A/S decided to go to court and sue KT for libelous and defamatory statements. The claim for economic compensation amounts to one Danish Kroner (Ingvorsen 2017a). Separately, Netto made the decision to cease completely the sale of the noise-reduction headset microphone product out of consideration for KT’s entrepreneurial business (Ingvorsen 2017b). In January 2017, however, Phoamy went bankrupt.

Only by being ahead of competitors may the entrepreneur survive. Imitation and copying occur frequently even if we may maintain that it is an unethical act in which the decision-makers passively seek an alibi in the institutionalized rules, norms, and patterns of the ready-made market. For this reason, the entrepreneur is dependent upon responsive creative dialogue with

others and upon their collective future actions and deeds. Not least, the entrepreneur (KT) and the surrounding others involved in the whole business supply chain (KP and Netto) are standing on the threshold of ethical and non-ethical actions driven by reactions of unique individuals participating in the chain of acts and events.

The degree of precariousness is, in other words, critical as it directs the entrepreneur in doing this or that. If, to a high degree, the entrepreneur is submitted to the will of others, the conditions for whether his/her actions are ethical or not rely on these others. This second vignette discloses the risk in a nutshell and also reveals that, if only market logic prevails, the survivors will tend to be the people who are willing to do almost anything to succeed, as noted in the introduction. Following a neoliberal logic, it is either one or the other that will survive. This logic can be criticized and condemned along with the main actors' decisions and actions. The point here is however that the problem resides in the logic of action that follows from a strictly neoliberal agenda. Hence, the collective space which is laid out for entrepreneurship is an important part of ethically flawed actions. High risk, competition, and uncertainty enter into an unfortunate alliance with the entrepreneurs' desire to be free, creative, independent, and unique.

Thus, an ethics of entrepreneurship needs to be carefully reconsidered. We have no illusions of solving the problem concerning ethics in relation to entrepreneurship. But, at least we can set up alternative signposts to understand ethics in relation to entrepreneurship. These signposts need more sensitivity to the relational and collective aspects of ethics and of entrepreneurship than can be accomplished by Foucault's care of the self, which is—as the name indicates—focused on the self. Self-formation has some potential but it must be linked to a historical, spatial, and material world cohabited by others. In the following two sections, such a perspective is advanced by adding perspectives from Bakhtin's concepts of *action* and *answerability* together with Arendt's notions of action, pluralism, and the space of appearance.

Bakhtin's Ethics of the Act and Answerability

Following Bakhtin, ethics is a relational and responsive doing, where entrepreneurs have to work together with others and at the same time become submitted to the will of the others. This tension is the fundamental problem for creating the dynamic interplay between the (potential) entrepreneurs and the others. According to Bakhtin, true understanding emerges through the

dialogue between self and other and is characterized as an understanding that seeks to “supplement”, that is active and creative, that mutually questions, addresses, and reveals potentials by provoking answers actualizing the potential, and that enriches and educates the understanding of both self and other (Bakhtin 1986, 6–7).

Viewing ethics, answerability, and dialogue as enmeshed into one another provides an ethical framework for conceptualizing how entrepreneurs are creative co-participants in changing the world and for analyzing the ethical premises of that creative work. The dialogue is defined by Bakhtin as the space where all voices participate with equal rights, and, because of this, the dialogue becomes rich in reference to other voices and their discourses, alternative world-views, questions, doubts, criticism, counterarguments, and different interpretations (Bager 2015; Bakhtin 1981, 1984, s. 71). The dialogue allows for diversity, dissensus, and heterogeneity to come into play between the dialogical participants, and for polyphonic truth to be born in their relation as they collectively search for it in the process of their dialogues (Bakhtin 1984, 110).

Following Bakhtin, an ethics of entrepreneurship thus engages with the creation of processes and spaces by which new ideas, new products, new services, and new organizational forms may emerge. The dialogue occurs in an open space of freedom as nothing conclusive has yet been spoken nor taken place in the world. Still open and free, the world is un-finalized and incomplete, everything always lying ahead of it in the future (Bakhtin 1984, s. 166; see also Morson and Emerson 1990, s. 37). If freedom, however, is possible, then ethical problems are also possible as well; ethical responsibility being unavoidable (Morson and Emerson 1990, 38).

Even though Bakhtin defines the dialogue as an existential ontological condition of human life, stating that “[l]ife by its very nature is dialogic” (Bakhtin 1984, 293), he questions its conditions of possibility due to several monologizing forces. These single-voiced discourses aim at unifying the world based upon the one and single truth, thereby making the other an object of its own consciousness, and denying the other equal rights and responsibilities (Bakhtin 1984, 71). Authoritative discourses, mental habits, intellectual traditions, ingenious theories, the centripetal forces of culture, codes, existing forms of knowledge, as well as descriptions and accounts in the after-now of the happenings and events of life, are all forces that in various ways simplify, overlook, or ignore diversity and dissensus (Bager 2015).

Thus, the power relations also addressed by Foucault (above) in many ways resemble the ethical problem and focus point in Bakhtin’s ethics. But while the care of the self was Foucault’s method for how the individual could set him- or

herself free, it is relational and collective dialogue which constitutes the space of freedom for Bakhtin. It is in dialogue that one can create something new. Having deadened the live medium of dialogue, monological forces tend to produce fixed and finalized summarized and conclusive contents, killed contexts, lifeless interaction, and voiceless, empty forms. In the end, they produce a finalized, completed, ready-made world characterized by a closed, coherent (Bager 2015; Bakhtin 1981, 1999; Morson and Emerson 1990, s. 56–60).

The value of Bakhtin's ethics thus lies in the possible creation of a space of freedom that enables the free and creative dialogue that may change the world. In this space, one is answerable to the world. Bakhtin's dialogue thus extends the ethical call for self-formation embedded in Foucault's ethics of freedom. Bakhtin's ethics is a call for answerability to the world in the way one is obliged to create and actualize one's uniqueness in a collective world. Answerability requires (1) participating passively and actively in Being, (2) acknowledging that one's own uniqueness is given but only exists to the extent that it is really actualized in performed act and deed and is yet to be achieved, and (3) acknowledging that, because we are actual and irreplaceable, we ought to actualize our uniqueness (Bakhtin 1999, 41).

Entrepreneurship thus becomes almost an obligation for everybody. This understanding of entrepreneurship stretches beyond the boundaries of the firm and of the economic system and embraces all social, cultural, private, as well as economic and organizational activities. There is no alibi for not being answerable even though answerable participation is involved with risk-taking: "My life is 'a responsive, risk-taking, open act-of-becoming [...]'; I cannot and do not live in the predetermined, 'completed' world..." (Bakhtin, according to Morson and Emerson 1990, s. 119). Living a real ethical life means to take ownership of one's own decisions and actions. As ethical human beings, we live not for ourselves nor for our own sake but rather we live from within ourselves based upon an answerable and self-sacrificing centrality of ourselves enabling us to acknowledge the other's unique place in Being (Bager 2015; Bager et al. 2016; Bakhtin 1999, s. 48). Ethics is not generalizable, not a matter of rules but rather a work, a doing (Belova 2008; Morson and Emerson 1990).

The creative deed, action, and answerability are central concepts in Bakhtin's ethics. They constitute the moral obligations of people, which thus embrace much more than the perspective of entrepreneurship emphasized by the great man/economic man literature on entrepreneurship. Furthermore, the space of ethics that follows from Bakhtin is a collective and relational space. We cannot escape the world nor the human and non-human actors who inhabit this world. It is this collective and relational space that we find further elaborated in the third and last perspective on ethics presented here.

Arendt's/Butler's Ethics of Action and Pluralism

While Bakhtin emphasizes the importance of a space of freedom in which dialogic action can take place, he does not provide much background for how it can be created. Arendt and Butler make it possible to conceive of a space of freedom through Arendt's concept of the space of appearance, which, through Butler's rework of Arendt's concept, becomes a collective, material, and relational space of freedom. Arendt describes the space of appearance as "the space where I appear to others as others appear to me, where men exist not merely like other living or inanimate things but make their appearance explicitly" (Arendt 1998, 198). It is in such spaces that people can appear as unique and different human beings with their own voices, intentions, and interests. It is a public space, which means two things: first, it means something that appears which can be seen and heard by everybody. Second, it signifies what we have in common and is distinguished from our privately owned place in it (Arendt 1998, 50–51). It is also what people have in common across generations (Arendt 1998, 55).

The specific configuration of this public space enables the creative act in Arendt's framework. The specific entrepreneurial act, as well as its worldly horizon, relies on that space. For Arendt, this act takes place in storytelling, which is conceived as the basic process by which people's inner passions, emotions, feelings, and intentions are transformed into fitting them for public appearance—a process that is compared with an artistic transposition of individual experiences (Arendt 1998, 50). Moreover, storytelling takes place among multiple wills and intentions and is relationally entangled and collective. Stories thus rely on the symbolic and material affordances that are collectively available through the presence of human and non-human others. Furthermore, the power of stories depends on alliances and networks.

As a consequence, ethical action—and subsequently ethical entrepreneurship—is inseparable from politics. The guiding principle of political action is the initiation of new beginnings through which people disclose their uniqueness and realize their human capacity (Cane 2015, 55). These new beginnings always happen in the "guise of a miracle", against all probability laws, structures, and mechanisms (Arendt 1998, 178). Importantly, such action can never be judged according to "goodness" understood as aligning with pure principles, universal rules, or prescriptions for what is good. Such universal ethics are not possible. Worse, they violate the situated nature of action, which, because it is political and takes place through negotiations with stakeholders, will always violate these pure principles.

Instead of goodness, only “greatness” applies, in the sense of calling for breaking through the commonly accepted and reaching into the extraordinary (Arendt 1998, 205). This is the true “entrepreneur” who acts in order to change and transform the world. Again, however, these new beginnings rely on the conditions of possibility for their emergence: the space of appearance. This needs to be there in order to inspire people to dare the extraordinary. In fact, if this space vanishes, everything is lost (Arendt 1998, 206).

For an entrepreneurial ethics to be manifested, there is every reason to be interested in the configuration of the collective space in relation not only to what kinds of entrepreneurship become possible but also to how we may enable entrepreneurship on a grander scale. The space of appearance can, in this respect, be compared with the political space of freedom. This is not freedom understood as untouched by discourse or even dominant and existing power relations. Furthermore, it is not freedom understood as the independence of the historical, spatial, and material conditions people are born into. These conditions are people’s ground. We are deeply entangled with history, space, materiality, and the human and non-human others who inhabit the world (Butler 2015).

Freedom is, rather, the ability to appear as unique subjects and the freedom to create one’s life within this world that created and conditioned us (Arendt 1998, 2006). It entails furthermore an obligation to this world and the plural human and non-human others who inhabit this world. The creative and great act does not suspend this basic obligation to what Arendt calls the plurality of the world. This leads to two points. The space of appearance can, according to Arendt, emerge wherever people are together in the manner of speech and action (Arendt 1998, 199). For Arendt, it is thus not an identifiable physical space. Butler, however, criticizes Arendt and argues that she relies too much on the speech act in her notion of action and the space of appearance. Her criticism is targeted at Arendt’s belief that language is what makes an actor an actor (Arendt 1998, 176). Butler (2015, 18 and 45) argues that we need to rethink the speech act to understand what is done through certain kinds of bodily actions.

Embodied actions and movements are important parts of expressive action and gatherings. Action is not just speech but relies on the movement of bodies in concert (Butler 2015, 18–19). Bodily action is necessary for supporting and endorsing claims of being seen and heard. Furthermore, Butler argues that collective actions are also produced by the conditions of possibility of their appearance. These include infrastructural conditions, technological means, access to resources, and the material arrangements that condition the coming together, architecture, and access to money, other people, and so forth (Butler 2015, 67). This means that Butler’s space of appearance is more tied

to location than Arendt's. It also means that much of the locus of entrepreneurship is located outside the entrepreneurial body itself. Put differently, access to knowledge, technologies, resources, capital, people, places, materials, and so forth are important conditions for entrepreneurship. There is a reason why Apple began in Silicon Valley and not any other place. This means that we have to reconfigure not only the notion of space of appearance but also the action itself.

The space of appearance is a collective, relational, and material space that governs the possibilities of actions and hence entrepreneurship. This point needs to be emphasized. It follows that stories of entrepreneurs are made—not told (Butler 2015). Stories are things people do together with other people. They are produced in specific historical, geographical, and material locations (Jørgensen 2017). Furthermore, they are conditioned on entangled multiple discursive and material affordances (Jørgensen and Camille Strand 2014). Stories and actions are thus always already material and vice versa. The specific assemblage of discursive and material affordances in the space of appearance thus governs what stories can be made.

This spotlights the differential distribution of the affordances of action and the differential distribution of entrepreneurial possibilities that the former entails. The space of appearance may emerge anywhere, as noted by Arendt, but the probabilities for its emergence are different according to the affordances that history, space, and material circumstances provide. Thereby our take on entrepreneurial ethics shifts focus away from individual attributes and the neoliberal ethos that tend to frame the subject of being masters of own fate. Instead, the role of the public space is emphasized. Entrepreneurship needs material conditions and other bodies to exist, persist, and grow. Freedom thus also implies the availability of discursive and material affordances for creating and enacting one's uniqueness.

The emphasis on the creative and great act does not suspend our obligation to other people. As noted, entrepreneurs, like other people, are born into and enter into a world without having made any conscious choice or deliberation. Butler argues that the unchosen nature of earthly cohabitation and the open-endedness and plurality this entails is the condition of existence (Butler 2015, 111–112). People are responsible even before making a deliberate choice about it. No ethics, including entrepreneurial ethics, can be derived from egoism or self-preservation. People are obliged to preserve those lives and the plurality it entails (Butler 2015, 113). This ethical obligation also comprises entrepreneurs. They cannot act in ways in which the plural condition of life is compromised. This commitment to the world takes precedence over commitments to any specific others like an organization, community, a nation-state, or the like.

Conclusion: Future Spaces of Entrepreneurship and Some Avenues for Further Research

The concepts of precarity, action, answerability, and the space of appearance capture important but inconsistent aspects of an ethics of entrepreneurship. They do not provide any definite answers but can be used to identify challenges, possibilities, and problems concerning ethics and entrepreneurship. These four points materialize in three possible future organizational spaces that have emerged in the past decade and might be dominant in the future. We have chosen three “extreme” spaces that illuminate different kinds of entrepreneurship with very different consequences. We do not claim that these spaces are representative of organizations nor of entrepreneurship. But they do highlight emerging trends of forms and activities that have become quite important parts of Western economies. The spaces are illustrated in Table 21.2.

In the first, we have the precarious space of extreme neoliberal capitalism and the entrepreneurial figures this space implies. In the second, we have creative storytelling organizations within the experience-based economy. Here, entrepreneurship becomes a question of action but the entrepreneurs still perform within a capitalist logic. The third space is the one usually associated with a more societal view of entrepreneurship, where this entrepreneurship is also based on connections across private and public spaces.

Entrepreneurship often takes place in precarious spaces that may lead to unethical actions. The current neoliberal ethos that dominates economic politics and organizations promotes unbounded competition and purely economic images of entrepreneurs. Self-interest, individuality, and the continuous pursuit of economic gain belong to a neoliberal ethos. Where such spaces prevail, it does not promote ethics understood as creative actions and deeds as well as answerability to the world. The only responsibility one has is to oneself. Perhaps some of the new upcoming organizational forms stem from entrepreneurship that can be seen as extreme expressions of neoliberalism and capitalism (see Table 21.2). These include companies that exploit globalization and new digital platforms to create new organizations based on low entry costs, maximum flexibility, and suspension of labor rights and privileges. Temporary low-paid jobs with a minimum of security and, hence, maximization of managerial privileges can accompany entrepreneurship within such socioeconomic and material spaces.

Ethical perspectives in organization studies are often concerned with practices of the self. These can be divided into two streams. The first stream is concerned with practices of the self where individuals are led to scrutinize

Table 21.2 Future ethics spaces of entrepreneurship

Precarious spaces within extreme capitalism	Creative storytelling spaces where entrepreneurs reshape markets	Creative storytelling spaces for sustainability practices and entrepreneurship-activism
Entrepreneurs that exploit globalization and new digital platforms to create new organizational forms based on low entry costs, maximum flexibility, and subsequent suspension of labor rights and privileges This kind of entrepreneurship takes place in non-regulated and noninstitutionalized spaces	Organizations within design, branding and lifestyle Research and development organizations: Gaming industry Entrepreneurship for reshaping the market. Ideas, knowledge-sharing, “nerdy” work, and skills Professional skills and relational skills for participation in creative communities	Carnavalesque organizations with an ideology of transformation of society Storytelling performances emphasizing local values and brands and practices of sustainability Sustainability mission, vision, plot, and founding narrative Entrepreneurship for changing societies. Entrepreneurship is often based on support from societies in terms of policymaking, public procurement, knowledge, and technological innovation
Examples: Airbnb Uber	Organizations are constantly striving toward the “new”: learning, flexibility, creativity, innovation, and complexity The organization is a force for transforming the market. Focus is on the creator that reshapes and creates markets Performance as action . This implies unique appearances and artful expressions . Organizations are “studios”, “ateliers”, or laboratories . Managers and employers are storytellers and story makers but within a capitalist logic and without a worldly horizon	Organizations are constantly striving toward the “new”: learning, flexibility, creativity, innovation, and complexity The organization is a political force for transforming the world. Focus is on the creator and the political agent seeking to transform the world into a more sustainable and ethical place Performance as action . This implies unique appearances and artful expressions . Organizations are “studios”, “ateliers”, or laboratories . Managers and employers are storytellers and story makers, who are answerable to the plural human and non-human others

themselves in order to become *self-aware*. The second stream is concerned with the dialogue that one has with oneself in regard to shaping oneself in relation to one's engagement in activities with the world. Where the first renounces oneself, the second is concerned with the self-formation of one's unique subjectivity. It is the second that we consider to be a practice of freedom that we can build on in relation to entrepreneurship.

Bakhtin extends the ethical call for self-formation and emphasizes action and answerability. This implies the creative deed and the obligation to create and actualize one's uniqueness in the world. There is no legitimate escape from our personal and moral responsibility. There is no alibi in authoritative discourses and other centripetal/monologizing forces. People have an obligation to create. Entrepreneurship is thus an obligation upon everybody. It stretches beyond the boundaries of the firm and of the economic system and embraces cultural, social, private, and organizational activities. Every act is, in principle, a new beginning, and in every act, people are responsible to the world. This changes the horizon of entrepreneurship from individual self-interest toward the world. It places answerability and responsibility on all of us to act and to foster centrifugal forces of interaction in order to create a more diverse, manifold, and less uniform world.

Arendt and Butler also underline action and answerability to the plural reality of the world that we are born into. They stress the importance of qualities concerning the space of appearance as a collective, relational, and material space that conditions the possibilities of action and, hence, entrepreneurship. This ethic puts a critical spotlight on the differential distribution of the affordances for action. This space governs the possibilities and enactment of freedom. In relation to entrepreneurship, the space of appearance implies that focus is moved partly from the individual entrepreneur toward the collective public space in which entrepreneurship appears. Therefore, entrepreneurship also becomes a question of the configuration of the public space. In other words, entrepreneurship becomes a question of politics and an arena for public inquiry and intervention. Entrepreneurship cannot be done at the expense of others. On the contrary, entrepreneurship implies a commitment to the plural human and non-human others.

The ethics framework that we have here elaborated calls for future research according to several organizational and societal dimensions. Critical research is needed in regard to how the neoliberal ethos of individuality, economic gain, and profit optimization affects entrepreneurship and its abilities to renew and change the economy. Our framework suggests that the neoliberal ethos might imply that entrepreneurship becomes an important part and vehicle of extreme capitalism with dramatic implications for new work

practices (see Table 21.2). In other words, practices of entrepreneurship become ethically questionable. This call for critical research, however, also implies the positive question of how societal, cultural, and economic structures and entrepreneurship are related to each other and what societies and regions can do, to promote not only entrepreneurship but also the right types of entrepreneurship. Bakhtin's framework of action and, especially, Arendt/Butler's notions of action and the space of appearance move focus away from ethics as being solely concerned with how entrepreneurs relate to themselves. Instead the focus is on the affordances for action understood as collective, relational, and material activities. Value creation and entrepreneurship enters into a chain of activities with other companies, organizations, institutions, society and people. Our framework suggests a framework of ethics-based responsibility that is given from entanglement, multiplicity, and our mutual answerability and responsibility toward our entangled selves and the world (Bager 2015; Bager et al. 2016). The space of appearance invites focus on entrepreneurship as part of generating shared value across divisions of public and private, profit and nonprofit, and among companies themselves. More specifically, more research is thus needed in terms of how economic, cultural, and societal infrastructures affect entrepreneurship and thus also how new forms of collaboration between municipalities, business, and relevant stakeholders in local communities might support entrepreneurship. This also includes new creative practices for supporting kinds of entrepreneurship that do not polarize the population and potentially might be part of sending groups of people into situations of precarity.

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22

Theological Perspective on Entrepreneurship

Kristin Falck Saghaug and George Pattison

Introduction

What is the relevance of theology for the overall area of business management in which entrepreneurship is embedded? During the last 20 years, there has been an increasing focus on the intersection between theology and economics and between theology and business (Harper and Gregg 2008). Within this area, we find a number of perspectives. For instance, the purpose of business has been discussed among Roman Catholic theologians with the main focus on the responsibilities incumbent on businesses (Melchin 2005). A provocative work by Meeks named “God the Economist” conceptualized God in economic terms and seemed to move away from primarily linking theology and economics, as in the 1970s and 1980s, to linking God to social ethics (Meeks 1989). To perceive the economic system as a form of religion promising a secular salvation is one thing and a newer interpretation of capitalism as a religion in Tillich’s work is another (Yip 2010). There is theological thinking that addresses economics from different perspectives in looking for religious or theological concepts intertwined with other areas (Rieger 2013). There has also been an increasing focus on how a fruitful discussion

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between disciplines such as theology, ethics, economics, and business could develop, as demonstrated in a collection of articles entitled “Christian Theology and Market Economics” (Harper and Gregg 2008). Another approach investigates whether Adam Smith was in principle a theologian or at least, as Waterman shows, it is possible to perceive the economics in Adam Smith’s “Wealth of Nations” as an exercise in natural theology (Alvey 2004; Hill 2001). Waterman states that this is not strange when considered in a historical context because, as Harper and Gregg also noticed, these areas have previously been integrated. Newton was mandatory reading for theologians in the eighteenth century (Waterman 2002). As far as Smith’s natural theology is concerned, its theology is apparent through its stress on the claim that knowledge about God is not dependent on revelations. Therefore, Waterman can state, concerning relations between economics and theology, that “the more ‘scientific’ economics is, the more valuable it becomes as theology” (Waterman 2002, 920). One study by Poole has raised the question of whether this quasi-religious thinking, in which “the invisible hand” makes itself apparent as an untouchable entity, is actually saving capitalism and the individual from taking any responsibility, as though this might relieve the conscience of greedy capitalists. Further, Poole sets out to investigate how the church may engage in informing the economic debate instead of silencing it (Poole 2004, 2010).

Sallie McFague is a theologian who has taken up a more critical position in relation to capitalism. She uses theology in an active manner to see how theology and Christianity need to address so-called secularized areas, including the economy, in order to become relevant (McFague 2001). A tribute to her thinking pays attention to the problem of the privatization of theology, which is implicitly transformed into terms of new liberal economics and explicitly expressed as, for instance, “spirituality” (Ray 2006). Examples of this include the self-made religiosity whereby the primary understanding of life is that everyone is responsible for their own happiness. This can also be seen as an instrumentalist, non-contemplative focus on spirituality, which is far from resembling any “authentic” idea about spirit (Case et al. 2012). There are even fundamentalist sci-fi versions connecting theology and economics, prompting ideas about how theology should rule the economy as “theoeconomics” (Brailean et al. 2012). Another example of addressing economics using theology, so as to give a different perspective and suggest another economic direction, is Kathryn Tanner, who unfolds an economy of grace, suggesting a transformation of the current capitalist system (Tanner 2005). Daniel Bell is another theologian who sees contemporary economics as contrasted to Christianity, the former expressing a distorted desire, the

latter a human and relational mercy (Bell 2012). Feuerbach acknowledged that the values of religion are a matter of anthropology and, as such, they are embedded in culture (Feuerbach 1855); and, later business studies find it important to address religion and the reflection of value that came to the fore amongst entrepreneurs (Dana 2009; Deutschmann 2001; Dodd and Gotsis 2007, 2009; Vinten 2000).

As we can see from the previously mentioned literature, efforts have been made to consider how theology should be actualized and made relevant in relation to economics at both the micro and macro levels, although the majority of these contributions end up in questions about ethical behaviour. The notion that there are traces of hidden theology within somewhat unexpected areas has also been taken up lately from different angles. At the very broadest level, the political philosopher Carl Schmitt even stated that any concept of the state was theological (Schmitt 2006), while Walter Benjamin is known for saying that capitalism is religion (Deutschmann 2001). Some more recent examples of this tendency to see a theological essence in secular phenomena are, for instance, found within certain political philosophies (Critchley 2007; Vattimo 2011), within the organization of the economy (Agamben 2011) and also within some areas of organization and management research (Case et al. 2012; Murtola 2012; Schwarzkopf 2012; Sløk 2009; Sørensen, et al. 2012).

A different approach again is the coupling of doing well in business with reflection on “acts of meaning” in everyday life, as inspired by the thought of the Catholic theologian Bernard Lonergan, having a focus on how we become ourselves through acting and what are called the operations of meaning in the ordinary events of working lives: “what we do as persons makes us into what we are” (Melchin 2005, 48). This is close to if not the same as Meeks’ interpretation of Hegel’s perception of work, wherein people create their world and therefore themselves through their work (Meeks 1989). Melchin found that the gap between human needs and the demand to be economically effective should in itself be an object for business innovation. Narrowing Melchin’s suggestion of a gap down brings us to the material dealt with in this chapter, the focus of which is related to small entrepreneurs when they balance between personal values and economic values as they engage in the creation of something “new”, as implied in the root meaning of the Latin “innovare”. Usually this “new” thing might be considered as addressing an opportunity. It is in these terms that we might imagine the Anglo-American entrepreneur as the quintessential opportunist, someone who, seeing a “market opening”, a new business model, seizes the moment, acting swiftly and effectively to establish his or her place in this new venture. While mainstream business management theories often take as a given the

notion about innovation processes as a movement from A to B (Cooper 2013; Tidd et al. 2001), other research on innovation processes has shown that these are far more complex and dynamic (Garud and Karnoe 2003; Van de Ven et al. 1999).

Against this background discussion, the aim of this chapter is to further consider *whether value is simply something we put in or whether it is something we discover, and whether what we discover, albeit fragmentarily, in discovering meaning, is a realm of value that goes beyond the individual and beyond the immediate occasion*. After this introduction, the chapter gives a philosophical and theological account of “the moment”. These perspectives are followed by a third section on specific issues of interest from the perspective unfolding “moment” as a fragmentary revelation. Herein empirical material and examples are unfolded in relation to Paul Tillich’s perception of the moment as fragmentary revelation. Fourthly, we have a methodological perspective on a hermeneutic approach depicted as an image. Questions for further research are followed by concluding remarks. Our aim throughout is to challenge a mainstream understanding of opportunity and move the focus to innovation of the very understanding of value itself by addressing the notion of the moment.

Perspectives from Existential Philosophy and Theology on “the Moment”

Nothing could seem further from small business owners’ value creation than the word “eternity”, but modern existential philosophy’s analysis of decision-making actually owes a lot to Kierkegaard’s idea of the *Øjeblik*, the moment of vision that gives us the basis for any kind of deciding or acting that is more than merely impulsive or random *and*, for Kierkegaard, a moment that is specifically described as a synthesis of the temporal and the eternal. In fact, as we go deeper into Kierkegaard’s analysis, we see that this synthesis of the temporal and the eternal is, in his view, necessary for human beings to be *selves* at all, that is, selves having a conscious sense of identity extended over time. In the twentieth century, Kierkegaard’s account of the moment of vision became one of the key elements in existential philosophy, both in secular and in religious forms. An example of the former is Martin Heidegger, whose work *Being and Time* (1962) was one of the defining philosophical works of the first-half of the century. An example of the latter is Paul Tillich, the German-American theologian who was a leading public intellectual of the 1950s and early 1960s. Tillich emphasized precisely the element of the

eternal in the moment of vision, as indicated by the title of one of his collections of sermons: *The Eternal Now*. However, there is also an interesting difference between them in that, for Heidegger (in this respect quite close to Kierkegaard), the moment of vision and the possibility of acting upon it is always and essentially individual. For Tillich, however, it could also be social—the most important example in his career being the German election of 1933 and the choice it offered between democracy and National Socialism. This combination of the individual and the social seems to be reflected in the previously mentioned findings.

We shall briefly sketch the respective accounts of “the moment of vision” offered by Kierkegaard, Heidegger, and Tillich and then suggest ways we might pursue this in the direction of informing thinking about how we might evaluate business opportunities as reflected in the empirical examples. Kierkegaard inherited a long history of philosophical and popular thinking about time that sees it as a process of infinite vanishing in which each moment disappears as soon as it arrives. As Augustine observed in his famous discussion of time in “The Confessions”, if the past is no more and the future is not yet, the moment has already flashed past in the instant one thinks of it: “now” is always already gone! (Augustine 1912, XI. 15). For much of Christian history, this gave philosophical support to the view that everyday experience seemed also to support, that nothing in life endures, everything is swept away by the passing of time, and therefore human beings must look beyond time to a realm of eternal truths and eternal life if they are to find the sources of true value.

Kierkegaard, however, is a key figure in a modern process of giving greater value to time and seeing the world of time as the proper sphere in which human beings are to work out the meaning of their lives. Rather than simply separating time and eternity, Kierkegaard wanted to bring them into relationship to each other, and this is what he did with his interpretation of the moment of vision in which we see the passage of time illuminated and sustained by the presence of the eternal. A moment like this is not one more in an infinite stream of ephemeral moments but a moment in which one becomes conscious of themselves and their world in a decisive fashion. In this moment, the world becomes present to a person and he or she sees it for what and how it is. But this is only possible because the eternal is present in each “now”. Whereas in the traditional view the “now” was the most fleeting and insubstantial of all the dimensions of time, Kierkegaard makes it the basis from which we can begin to construct an abiding identity. It is only in the now and in relation to what is truly present in the now that we can apprehend the eternal and therefore also apprehend time as having a significance that is more than merely “temporal”. If we don’t start now we never will! But if we do grasp

the presence of the eternal in the now, then, Kierkegaard says, we start to become “older than the moment”, that is, time is no longer a sequence of vanishing moments but starts to acquire endurance.

As Kierkegaard puts it in “The Concept of Anxiety”, “the moment is that ambiguity in which time and eternity touch each other, and with this the concept of *temporality* is posited, whereby time constantly intersects eternity and eternity constantly pervades time” (Kierkegaard 1980, 89). But if the present has a certain privilege in relation to the experience of the eternal as present in and to time, Kierkegaard also says that “the future in a certain sense signifies more than the present and the past ... [and] ... the eternal first signifies the future or ... the future is the incognito in which the eternal, even though it is incommensurable with time, nevertheless preserves its association with time” (Kierkegaard 1980, 89). As he notes, people often speak interchangeably about the future life and eternal life. This looks like a contradiction. How can we explain it? Our suggestion is that what Kierkegaard is saying is that we are basically beings oriented towards the future. The problem is that we are all too likely to lose ourselves in endless fantasizing about all the things we might do or could do. This is Kierkegaard’s criticism of what he calls the aesthetic way of life as epitomized in the figure of the poetic dreamer who sits around full of ideas and never gets anything done! Thinking about the future alone will not enable us to connect with reality. For that we need, precisely, the present.

But, if Augustine was right and the present is constantly vanishing from beneath our feet, then we are in trouble. If, however, the passing moment really is grounded in the eternal, then we have a foothold in reality on which to build a truly effective relation to the future. So, concern for the future drives us to the present and the present then provides a basis for relating, realistically, to the future. Focusing on the present moment, then, is not about stopping moving forward but learning to move forward in a realistic way. In “Works of Love” Kierkegaard writes that “[b]y means of possibility, eternity is always sufficiently *near* to be at hand and yet sufficiently distant to keep a person moving forwards, towards the Eternal, in motion, progressing. Using possibility in this way is how eternity entices and attracts a person onwards, from the cradle to the grave—if only we choose to hope” (Kierkegaard 1998, 253). The relation to the Eternal is not intended to make us turn away from life in time (as in pre-modern, Augustinian spirituality), but is precisely aimed at keeping us moving forward. Realism and hope are two sides of the same coin. Another way of putting this is simply to say that we will only be able to keep moving forward hopefully into the future if what we take with us from the present is really something valuable, something worth keeping, and something sustainable.

As has been said, Heidegger employs a lot of Kierkegaard but his view, at least in “Being and Time”, excludes the possibility of anything “eternal”. What, then, gives the moment a decisive character? As Heidegger sees it, human beings are thrown into a world and a set of relationships that they do not choose (one does not choose parents, country of birth, nor mother-tongue, etc.) and which are, in that sense, more or less accidental. How then can we escape the relativism that this situation suggests; how can we make ourselves more than our environment? The one decisive factor for Heidegger is that we all have to die, although most of the time this is something we avoid thinking about and don’t really take into account in our dealings with others. However, he suggests that if (to use his vivid expression) we “run on ahead” of ourselves towards death and really commit ourselves to seeing every aspect of our existence in light of this, then we will be able to live more authentic, that is, truthful, lives. *Accepting our lives even though we know that no aspect of them is eternal* thus provides the basis for continuity and for rising above the experience of life as one damned thing after another. For Heidegger, then, the moment of vision is the moment in which we see ourselves for what we are—finite entities thrown towards death—and are able, *nevertheless*, to choose and affirm ourselves, really to become who we are. In this view, then, the content of the moment of vision is not the eternal but the exercise of the will on the part of those who choose themselves in it. There are no intrinsic values independent of what we choose—although there are constraints, as in the situation in life into which we are thrown.

Specific Perspectives on the Moment Addressing Paul Tillich’s Theology

Tillich’s thinking about time is, in many respects, similar to that of Heidegger, but there are also subtle differences that are important for our present argument. Tillich often meditated on what he calls the mystery of time (Tillich 1948, 34), and quoted from Augustine’s “Confessions”: “if nobody asks me about it, I know. If I want to explain it to somebody who asks me about it, I do not know”. In Tillich’s hands, this reveals a subtle duality in what we mean by knowledge: there is the knowledge we have in living the reality of time and then there is the knowledge that comes (or, in this case, fails to come) when we reflect on it. This connects to a central element in Tillich’s thinking about reason. Through inspiration from the platonic Eros and the concept of *Theoria* as contemplation, Tillich points, in the first volume of his “Systematic Theology”,

towards the ambiguity of knowledge since human beings have been estranged from their essential being through the Fall (Tillich 1951). But to acquire knowledge of “something” means to participate in it and this is the only way in which the subject-object cleavage may be fragmentarily overcome. Participation provides a context for knowledge even if that knowledge cannot then be abstracted from the living situation. This is what Tillich’s use of the term “presence” means. However, he also insists on using the term “eternal” and this, for him, is intrinsic to the possibility of presence. Why? Because what is disclosed in a situation of “presence” is not dependent on our input, so to speak, but always precedes it. Time, in other words, is always already there when we address ourselves or are attentive to the moment. This is in many ways reflected in a conversation between people engaged in something that they both find meaningful.

When asked what she remembered from the workshops she had attended, an experienced business owner replied, “it was definitely to meet up with the other business owners” (Saghaug 2015, 170) Consequently, it was the pauses in between the formal sessions that made the participation valuable for her and perhaps it was the meetings that occurred then that, for her, became “moments” in the existential sense. How? Because the dialogue—the subject matter spoken about—brings about a transformation through the turning away of our attention from ourselves to the subject matter at hand so that we become present and “caught up in the moment”. This can be a revelatory moment, where truth happens because eternity (or, in secular terms, something of enduring value) reveals itself as presence. But, in the moment when we start to reflect on the dialogue as such, we are no longer present in the now and step out of our exposedness and out of the relation, and back into the temporal chronology. However, in being present, we *do* know something, even if it is only fragmentarily and, if it is experienced as decisive, we may experience the moment as filled with Presence and realize that we are touched by what Tillich refers to as the existential now: *existentiale nunc* (Tillich 2011, 420). This is, metaphorically speaking, a curve that comes from the eternal into the moment of a revelatory experience and returns again going both forward and upward, as Tillich depicts it. As such, it allows room for the experience of fragmentary participation, a moment of presence. Apprehending “the eternal now” in the moment of vision does not then mean grasping a thoroughly reflected concept in the manner of philosophy. Rather, it means apprehending that there is something at play that is greater than we ourselves are. We only grasp it—or are grasped by it—in part, in a fragmentary way (Tillich 2002).

“Moment” as Fragmentary Revelation Among Entrepreneurs

How do these rather abstruse philosophical and theological (perhaps even “mystical”) reflections relate to the real world of business life and practice? And how significant, in this regard, are the differences between them—remember that Kierkegaard and Tillich really seem to suggest a relation to something “eternal”, whereas Heidegger argues only for something that unifies our lives in time. The point we make is this: taken together, these three accounts of the moment point to a kind of decision-making that is essentially different from the short-term, ad hoc, opportunistic images of decision-making in business. Such images are, of course, often put out by those hostile to business but they are also typical of certain business cultures in which a buccaneering approach to decision-making is often valued—exemplified, of course, in the culture underlying the 2008 crash or in more recent events such as the destruction of the UK chain store British Home Stores. It would be unrealistic to demand that business decisions should last for “eternity” (nothing worldly does or can), but the existential idea of the moment points to a need on behalf of the decision-maker to look beyond the immediate need of the present and act in view of a long-term and sustainable vision. This need not be long-term in the sense of creating something that will last a long time. The pop-up phenomenon is now a well-established and valued part of the business landscape; but even in the case of a pop-up business with a life-expectancy of only weeks or even days, the idea of the moment implies that the initiator is acting out of a larger and enduring complex of values and purposes. In other words, even small, local, and temporary businesses will be of most value to all concerned when they contribute to something more enduring. The business in question may be only a fragment but it is a fragment that points us towards a greater whole.

Tillich’s use of *fragment* or *fragmentarily* in relation to revelatory experiences of ultimate reality, which might at first seem insignificant, turns out to be central to the understanding of participation and of the character that this gives to the moment. Maybe we could therefore dwell a bit longer with the idea of fragment as the very symbol of the moment. There is a profundity in Tillich’s use of “fragment” that signifies how the tiniest and smallest, perhaps even the most insignificant particularity may be the participative link towards the larger. The fragment might point at the “little” story as the one of “great” importance¹ as illustrated in the vignette below.

Vignette 22.1 Fragment Symbolizing of the Moment

So this is another day with rain in November. Dark and as cold as it only can be in Denmark because there are no mountains and all is so damn flat. I long for the snow and the dry coldness from my home country several hundred km from where I am now. I am sitting this evening in a studio in a basement together with other young people, all of us are studying art in different contexts, now we are listening to the teacher, an experienced artist with a face that has been smiling so much that his wrinkles seem to be stuck in a laugh. He is telling us about a journey he had made years ago. He was walking in the mountains in Norway dazzled by the beauty and the wilderness. He had his sketchpad and pencils with him and he was searching for the best motif for his drawing. But all was so grand and he could not decide, because wherever he looked he was surrounded by another great potential drawing to be made. After wandering for hours he got tired and sat down to rest. When he was sitting there looking down at the ground his eyes caught some straws growing between the rocks and pebbles. He could not stop looking at it—the lines, the colors. Eagerly he grabbed his sketchpad and pencil and begun to draw. (Saghaug 2015)

As this story shows, it is the *little* sequence of events, or the *little* motif, that provides the occasion to experience what is truly substantial, through or via the fragmented part of the bigger scenery. Even secondhand, such stories can still mediate the “presence” experienced by another: in the retelling, one person’s moment of vision becomes similarly revelatory for another. Related to our discussion of the idea of the moment, the social encounters someone values suggest the question of whether these are the moments that are really decisive or truly moments of vision. The moment *could* be decisive as some new connection between people was established—even though they did not, at the time, seem to be paramount since another aspect also emerged. Because, more importantly, we perhaps had not considered that the innovation process actually started long before and on another level and that it was a personal experience that triggered the development of the idea for a business. And, during the course of interviewing, some quite different notions occurred which gave a new perspective on decisive moments that can be related to entrepreneurship. The vignettes below exemplify these notions.

Vignette 22.2 Theological Perspectives on Entrepreneurship Related to Moments

In a survey, 37 small business owners participating in a Nordic EU-project on “Innovation and Growth” from 2011/12 were asked: “how important do you think that the following strategic elements are for the business’s future business model innovation (BMI)?”. From their answers it became clear that a majority of the companies involved have their very own understanding of their responsibility towards their customers and the society with which they interact. 17 of 21

(continued)

Vignette 22.2 (continued)

respondents scored 5 or above in relation to the question of whether their BMI should make society better, 11 scored 7 and above.

The four semi-structured interviews that were designed as a follow-up on the survey and the participant observation were mainly focused on our interest in what the business owners remembered from their workshop in order to find out if there had been some meaningful moments during the workshops that remained in their consciousness.

This study started out with the assumption, based on anecdotal experiences, that there could be certain revelatory moments during such an innovation process that could have a decisive character on the business choice of opportunities and how they created value from the standpoint of having concerns beyond profit. This is what we wanted to explore further.

The four business owners were chosen because three of them had high scores on the experience of some *eureka* moments during a workshop. The one who did not have this experience did not attend this workshop but was nevertheless chosen because, like the other three, this respondent had answers in the high end in relation to the importance of personal values as well as economic values, and the importance of making society better through their business. All four of them were perceived during the project as being passionately interested in their business and all of them had been business owners over a longer period (min. 5 years).

The semi-structured interviews shared one main question: what do you remember from the project? The intention behind this question was to further clarify whether there had been any special experiences or moments in relation to their work with business model innovation that had a lasting significance for the participants after the project was concluded, in short, whether there had been any moments that were revealing for them. If so, it was likely still a part of their memories. However, during the course of conversation it became clear that, in relation to business innovation, the important moments for these business owners occurred years ago. The basis of their current engagement or even love for their business seemed to be founded upon certain events that had something in common. This has turned out to be a finding we would like to share in order to point out how the notion of moment may serve to address aspects in relation to entrepreneurship and value creation that otherwise might be ignored (Saghaug 2015).

By inquiring further into the background of their businesses, some of the prosperous small business owners reported moments filled with the experience of suffering. These stories then combined with some of the other stories that occurred during the project and seemed to connect pain and passion, a wordplay on the English word and its double meaning (suffering *and* desire).

Vignette 22.3 Empirical Examples Related to Moments

- (a) A prosperous entrepreneur lost both her parents as a teenager, an experience that, as she openly discusses in the media, made her want to create new ways for people to see and connect via technology. Asked about how she considers value, she said: "my motivation is not money at all, but only the value that the product may create for others" (Saghaug et al. 2014).

(continued)

Vignette 22.3 (continued)

- (b) One interviewee had never wanted to be a business owner because she had a vivid image in her mind from her teenage years of seeing her broken father coming home after he had to fire a number of employees due to an economic crisis in the building industry. The responsibility for her employees is a heavy burden but, on the other hand, it seems to make her work even more passionately as she said she wants to make a business that leaves the world a bit better for later generations. (Saghaug 2015).
- (c) One business owner started her business following the recovery of a sick child that got well through alternative treatment, inspiring the mother to educate herself within this field and to make a business out of it “in order to help others with the same problems”, as she often cited as her motivation (Saghaug 2015).
- (d) One formerly very active entrepreneur became ill, but that seemed to change her business even more with regard to further emphasizing the task of creating value that could help children with physical and psychological problems (Saghaug 2015).
- (e) An extra example we would like to add is from an individual who presented herself during the project as having a background as an overweight and bullied child. Now she is a successful writer of books and produces television and courses on healthy foods. This seems to be a good example of how personal distress can become a platform for discovering ways to create outcomes that both create a business doing something an entrepreneur finds meaningful as well as inspiring to others (Saghaug 2015).

In Heideggerian terms, example (a) suggests that a business undertaking can be a response to an experience of finitude (through the experience of pain, illness, etc.) that inspires the entrepreneur to “become who they are” and act upon this through their business. In example (b), the moment that made her consider not starting a business seems to have had a great impact, both as a way of thinking about her employees and as a premise for how the business owner wants to conduct her work. In the example of the mother of a recovered child (c), it became her mission to share her knowledge with others. Others needed to know what she had experienced and seen and, at the same time, been helped by. Example (d): when asked about a workshop that involved making artwork, it was with such words as “great to work on my dream” that she described her centred dwelling, as if she could revive the clarity of a former decisive, even existential moment as she created an image of the service she wanted to offer. She had even saved her “artwork” and carried it all the way home afterwards.

When we were asking for events of importance in relation to how these business owners made decisions relative to their choice of business or business models, we did not expect that there could be a possible a connection between

passion as pain and passion as love as we find indicated in the earlier empirical examples. Is it perhaps possible that there is a connection between the experience of suffering (passion) amongst small business owners and the passionate drive and ethical interest they express in their value creation? Is it true that creating value means somehow discovering value as happening on the basis or even in the midst of suffering? From this passion of suffering it seems as if the passion is transformed into love in order to create value that is beyond profit.

Are these examples a movement, so to speak, from a distanced knowledge (of something) to the current situation, that is, a situation in which these entrepreneurs are fully involved? It is as if these events in their lives serve as fragments that are offering insight (into something), setting a course for the decisions they make. When Tillich explains the fragment, he illustrates it with the image of a part stemming from a sculpture of a god; even if it is just a bit torn apart from the whole, it still represents it and points to it (2011, 140). So the fragment then is, in a paradoxical way, a shattered element of the whole and this shattered element represents and even participates in eternity, something that endures. But there is also more to it than this simplicity. Because a fragment is not just a piece of a totality, which would elevate the fragment into a kind of “being”, which would contradict Tillich’s use of symbols. The use of it is symbolic because, as a symbol, it points beyond itself, but it differentiates itself from a sign because it also participates at the same time in the “what” it symbolizes (“Dynamics of Faith” and “Systematic Theology I” and “III”).

Addressing the empirical examples in the vignette (22.2), it seems important to consider that to create value in a business might be to address the meaning that one has fragmentarily experienced years ago, and, by doing this again and again, one revives this moment fragmentarily. There could even be a certain *theology of fragments* hidden here that points towards several aspects related to the revelatory moments.

Firstly, since revelations only can be fragmentary experiences of the ground of our being, the very “fragmentary” character is vital for the revelatory moment. As the participatory symbol, the fragment thus has another characteristic: it has left a wound or an opening into/towards the whole. In itself, a fragment is an opening as well as the momentum that makes any revelation possible. Fragment is the very symbol, opening a mode of experience for any moment of vision to happen so that we might even say that being fragmentary is the condition for any revelation. Every revelation is a fragment, unambiguously breaking into the ambiguity of existence and offering a fragmentary experience of Spiritual Presence. It is a kind of in-between, as in the story of when Jesus died on the cross and the curtains of the temple were torn apart. God’s *shekinah* (understood in the

Bible as the radiant light that marked His presence on Earth) is no longer confined to the temple, instead a gap has been created, an opening towards the rest of the world.

Secondly, the fragment is also a symbol of the broken or simply of brokenness. The fragment that Tillich uses as a mode of experiencing might serve as an illustration of the character of human beings in their existential predicament. In pain, one is torn apart and bewildered in relation to seeking meaning (as presence); but, within existence, one can only experience essence fragmentarily. But since we all originate from the same power of life, according to Tillich, we may through *participation with others* share both the fragmentary experience stemming from our wounded and estranged state and, to continue in Tillich's terminology, through this meeting and the experience of our own finitude and fragility, be healed. This should be understood in the sense that we both share the experience of being parted as well as participating fragmentarily in the ground of our being, even if this, again, may only be fragmentarily experienced.

Thirdly, the very essence of the fragment seems inherent in Christianity, as such, and contains in itself the beginning and the end. Tillich writes, "the fragment is an anticipation" (Tillich 2011, 140). Since fragment is anticipation, it is thus as a "thing" connected to another thing or things: the *eschaton/eschata* (the last thing[s]). The last things are the symbolic expressions of the relation of the temporal to the eternal and further symbolize the transition from the temporal to eternity. That also makes "fragment" as anticipation to be an expression like *eschaton*, as in "our standing in every moment in face of the eternal, though in a particular mode of time" (Tillich 2011, 395). We may think of St. Paul's saying: "For now we see in a glass [i.e., a mirror] darkly, but then we will see face to face. Now we know only in part; then I will know fully even as I am known" (1 Corinthians 13.12; Tillich 2011).

With regard to how the fragment is experienced as anticipation, it could be said to have the form of an event in time as the fragmentary experience of what Tillich calls *kairoi*. This term needs some explaining. Although he mentions Kierkegaard,² Tillich's discussion of the "moment of vision" typically connects it to the New Testament term *kairos*, the "right time" or "the moment that is the fullness of time", as is used when Jesus is described coming into Galilee and preaching "the time is fulfilled [or, in older translations 'at hand']: the Kingdom of God is upon you" (Mark 1.15).³ The idea is also taken up in the teaching that Christ's own coming occurred "in the fullness of time" (Colossians 1.10). In both cases, it suggests that God's purposes cannot be fulfilled at just any time; instead, there is a right time, a time that is prepared for in a particular sequence of historical events. Whereas in the Platonic scheme, truth is equally near and equally far from human beings at all times,

the biblical narrative suggests that God's relation to human beings is, as it were, "timed". Particular moments of time have particular significance and provide the unique occasion for a specific encounter with or response to the divine purpose; and, it is in this sense also that Jesus can speak of Jerusalem not recognizing the "hour of its visitation" (Luke 19.44). Time qualified in this way is no longer simply Chronos, time measured by the movement of celestial bodies or the ticking of a clock, but time for decision.

Tillich's distinctive development of this idea was to suggest that not only is there a once-and-for-all time, uniquely realized in the time when the Word became flesh in the man Jesus,⁴ but that the lives of nations and individuals have a similar movement towards moments of fulfilment, moments that confront those who experience them with, literally, momentous decisions as to their common or individual future life in time. In a play on the New Testament idea of *Kairos*, Tillich spoke of our general time-experience as being marked by such lesser *kairoi*, each of which had something of the character of the great once-and-for-all *Kairos*, and, just as this latter gives meaning to time as such, so the former gives meaning to individual or communal experiences of time, as in those special times when lovers fall in love or renew their vows after betrayal, or when a nation must make a great historical decision.⁵

He connected this also with the idea of fate or destiny: whereas the Platonic ideas are above time in such a way as not to be altered in any way by the alterations of time, an idea or a truth that is accessible only at "the right time", in the moment of *kairos*, has a fateful quality such that whether one comes to know it or not is dependent on seizing the time and responding to the moment of destiny that gives the possibility of relating to it in a decisive way. "The moment of vision" is not a brute interruption of horizontal time but is always a moment to which horizontal time is leading us and in which horizontal time finds its fulfilment, so that perhaps we should say that horizontal time is not really horizontal at all but curved, curving up towards or away from those supreme *kairos* moments that are to be seized in acts of free acceptance and giving. These moments cannot happen at just any time, and only time can tell us when the right time has come.⁶ Yet there is a sense that any moment has the potential to become an authentic moment of vision, since every moment is implicitly related to the eternal. As he writes in a sermon on "The Eternal Now", "The riddle of the present is the deepest of all the riddles of time ... Whenever we say 'now' or 'today', we stop the flux of time for us. We accept the present and do not care that it is gone in the moment that we accept it. We live in it and it is renewed for us in every new 'present'. This is possible because every moment of time reaches into the eternal. It is the eternal that stops the flux of time for us. It is the eternal 'now' which provides for us a temporal 'now'. We live so long as 'it is still today'—in the words of the letter

to the Hebrews. Not everybody, and nobody all the time, is aware of this 'eternal now' in the temporal 'now'. But sometimes it breaks powerfully into our consciousness and gives us the certainty of the eternal, of a dimension of time which cuts into time and gives us our time" (Tillich 1973, 107).

So, given the context of entrepreneurship, this is not something we can control or empirically measure. But still, methodology is paramount, and in the next section, we add some methodological perspectives on future research amongst entrepreneurs.

A Methodological Perspective on Further Interaction with Entrepreneurship

Tillich's notion of revelation as an *experience* of truth in moments gets further inspiration from the understanding of "experience" in Gadamer's work, where he mentions the tragedies of Aeschylus in which *pathei mathos* is our mode of learning 'through suffering' (Grondin and Plant 2003). The same point is reflected in the empirical examples from this chapter. The connection between understanding and suffering sheds more light on Tillich's understanding of revelation, especially as it is related to art that incorporates the existential revelation of human suffering. Some types of art that are revelatory are determined by the "dynamic character of both disruption and creation" in *Art and Ultimate reality* (in Tillich 1987, 150).

This art is in contrast to our encounter with reality where things of unimportance become our "gods", when so-called vain values that are destroying us become the goal of our efforts. When Tillich writes about an ultimate reality that "underlies every reality" (140), (Tillich, *The Boundaries of Our Being* 1973) showing the world as we see it to be "not-ultimate, preliminary, transitory and finite", it is not based upon the idea that we should value instead an essential, never-changing reality. No, the reality that is ultimate is there all the time, but we cannot experience it fully except, for instance, as fragmentary experiences of full presence (Tillich 1987). Can we find a method for bringing revelation about? The short answer is that we cannot. On the other hand, inspired by combining Tillich's and Gadamer's thoughts on art, we can give an image or a framework of *understanding the innovation of value as a fragmentary revelatory breakthrough* (Tillich 1990, Gadamer 2004).

We gather five concepts inspired by Gadamer and Tillich. "The Five P's" represent an image of a process depicted as a hermeneutically dynamic space and can serve as an inspiration for approaching the notion of moment as intimately connected with the innovation of value itself. The following serves as

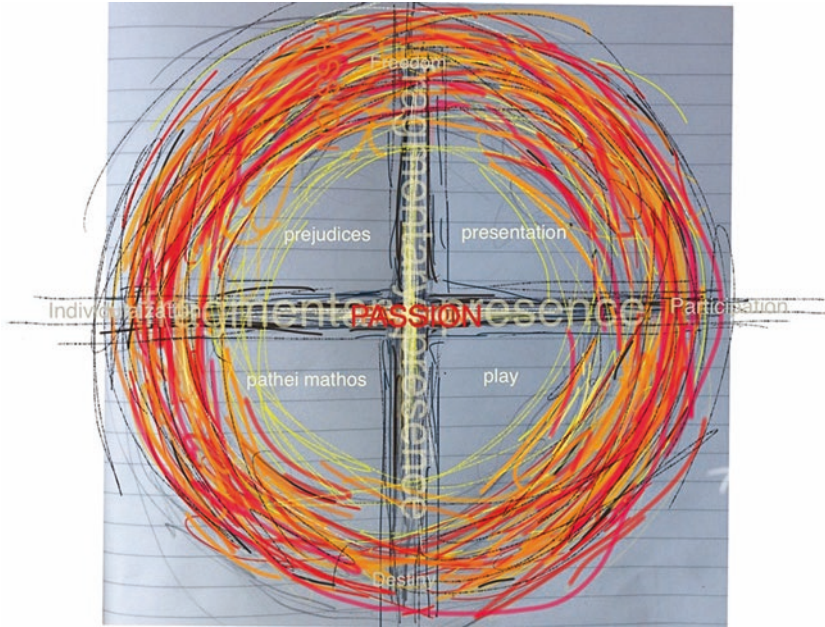


Fig. 22.1 The Five P's

an illustration for addressing this process dynamically from a hermeneutical perspective (Fig. 22.1; source: Saghaug 2015, 195).

1. *Prejudices* are important as these are what we all carry as our individual lens into any situation, also depending on our own history. The business owner did that, as well as the researcher.
2. In the situation we attend, an event might happen or an artefact is made that we can observe as an artwork that is in a state of becoming because it presents itself differently in every new encounter. It is therefore what Gadamer would call a *presentation*. It could also be the person, the business owner, and their interaction that became the work of art unfolded as a presentation.
3. And then we have the experience of *play*. If we want to understand another human being, in this context a business owner, we cannot stand aside but must enter into the game, that is, we must be willing to play. When we do that we also experience a kind of participation: we interact and relate.
4. The *pathei mathos*, meaning understanding through suffering, is the trickiest part of this framework because how do we understand through suffering as researchers? We understand by acknowledging that our own original images (prejudices) become shattered by encounters and by participation. And this is also connected to the centre of this image.

5. The centre of the framework is the shattering of form through art, the iconoclastic elements that all these Ps relate to: revelation as breakthrough and the experience of *passion*. The revelation is represented with the cross, and that is in itself also a form that is broken through. It unfolds itself on the background of a fragmentary presence: Being Itself (*esse ipsum*) symbolically depicted as a core of relations. If we address this as a method of revelation, it would be a method of understanding that is a hermeneutical movement. Evolving around the centre of this is the double understanding of passion as suffering versus passion as love, just as we found some of the business owners unfolded in the innovation of value.

This image of understanding thus becomes an illustration of how we may understand those business owners who try to balance ultimate concern and economic values. If we imagine one of the mainstream innovation processes as a tunnel, imagine now that we cut it open and look into it. Imagine that this image is within it and coming towards the viewer. This framework thus starts with passion as suffering and ends with passion as love; they are, though, both present and therefore illustrated by the cross as something that opens our estranged reasoning and breaks through it. Not to destroy our reasoning but to create. In this fragmentary presence, Tillich and Gadamer in combination can be used to understand small business owners who innovate value in such a way that they turn passion as pain into passion as love.

Questions for Further Research

Sceptically, we might ask whether even the kind of secular revelation we have been discussing repeats the myth about innovation as the inspired genius at the eureka moment, when studies prove that the events triggering innovation come from “multiple and seemingly coincidental sources”, according to “The Innovation Journey” (Van de Ven et al. 1999, 26). How, then, can we give further grounding to this idea? We cannot at this point answer this fully, but we can indicate a number of areas in which we might seek to apply it further.

Firstly, it seems that it might help us in making sense of the dimension of “the new” in innovation itself. Tillich himself speaks of the breakthrough that occurs in revelation as the experience of the “new” or the “new being” focuses on a symbol in which human alienation and the ambiguous split between the individual considered as different and secluded versus the participating individual considered as receiving and open is healed through a synthesis of them both.

Secondly, there is the question of justice. Research on entrepreneurship could address how, in times of economic depression and late capitalism, we

can address the creation of value beyond profit, value that may benefit the many and not the few (a slogan popular with politicians but somewhat elusive in actual policy directives). How can research within entrepreneurship address people as the end, and not the means, when new opportunities are sought?

Finally, there is the question of work as meaningful and it is fitting here, in relation to the idea of learning through suffering as well as the revelatory art experience, to cite from “On the Idea of a Theology of Culture”. Here Tillich’s concept of religion is folded out in such a way that we also may see how intertwined religion is with the art experience, including when it reveals suffering as, however, transformed into a simultaneous experience of nothing and something in its ultimate sense:

“Religion is the experience of [or directedness towards] the unconditioned and this means the experience of absolute reality founded on the experience of absolute nothingness. One experiences the nothingness of entities, of values, the nothingness of the personal life. Wherever this experience has brought one to the nothingness of an absolute radical No, there it is transformed into an experience, no less absolute, of reality, into a radical Yes. This Yes has nothing to do with a new reality that stands beside or above things; such a reality would only be a thing of a higher order, which in its turn would become subject to the power of the No. Rather, throughout everything, the reality forces itself upon us that is simultaneously a No and a Yes to all things. It is not a being, it is not substance, it is not the totality of beings. It is, to use a mystical formulation, what is beyond being, what is simultaneously and absolutely nothing and something. Nevertheless, even the predicate ‘is’ conceals what is at issue here, because it is not a question of some actual being that concerns us, but of an actuality of meaning that convulses everything and builds everything anew” (trans. Nuevo 1987, 24–25) (in Saghaug 2015, 154).

In this perspective, building something new, the very event of (genuine) innovation in itself creates value or brings about a new understanding of value, that is, of what is truly valuable. Research as to how this is possible on a larger scale is, naturally, more challenging, but at the very least we can say that entrepreneurship should have the courage to go beyond the mainstream models embedded in a capitalist worldview and ask for alternatives to the current dominant economic dogmas.

Concluding Remarks

There is a mainstream focus on AS IS and TO BE that neglects the importance of the past as occurring in the moment of the present. Thus mainstream business management operates with past, present, and future in such a way

that the past is depicted as an obsolete legacy and the emergence of the new is prioritized. But we know from Kierkegaard, Heidegger, and Tillich that the moment unites past, present, and future. It is further in Tillich's understanding that the moment of breakthrough occurs in a fragmentary way within history and makes a decision possible. For some this could mean that their innovation of value was initiated by the seed that a revelatory moment planted. It can have many forms, and, usually, we do not even consider these revelations because that is not a language we have for these past moments. A breakthrough is not something that is necessarily pleasant, but it is the moment that begins a transformation of the person towards an innovation of value beyond self-interest. The ultimate concern has turned value into a quest for meaning. If the value of the past is neglected in innovation processes, then our experience of the present will not allow a genuine innovatory breakthrough that might represent the very origin and even source of business owners' innovation of value. This we need to be aware of: revelation as breakthrough is the moment where innovation of value begins.

In relation to the empirical material we addressed in this chapter, we were not expecting that this would show a possible connection amongst small business owners between passion as pain and passion as love, nor a possible coherence between the experience of suffering (passion) and the passionate drive and ethical interest they expressed in their value creation. Nor were we expecting to find that there is a certain form of an innovation *of value* that is emerging out of the midst of suffering, an innovation into the very understanding of value that is beyond profit. These findings question the mainstream understanding of time in innovation processes; the idea of linearity when working with business opportunities does not capture the possibility that the innovation process started years before and is reflected in the moments that may occur in the present process.

On the other hand, it could be important to address, even if we found indications for connections or perhaps even coherence between the individual experiences of pain and the passionate, heart-driven business owner, that these might not be eternally true for them. While the theologians direct us to the eternal, that is, to how the moment allows us to envisage and to work towards something lasting, they might instead have agreed with what Heidegger so emphatically teaches, that, at the human level, nothing is forever. This means that we can't expect a once-off decision to carry us through but, to use a term developed by Kierkegaard and picked up by Heidegger, our relation to the moment becomes a matter of "repetition". Of course, each situation will vary according to whether a new decision regarding one or other project needs to

be made daily, monthly, yearly, at regular or irregular, longer or shorter intervals. Yet, an authentic decision based on a moment of vision cannot be expected to decide everything forever! This also means that just because a decision now needs to be revised, it doesn't follow that it was wrong when it was made; therefore, we don't need to feel guilt or regret in relation to it. Each "now" is new.

Let us end with Tillich's notion of the revelation as fragmentary and with the moment understood as a fragment, so we may see that we also have a perspective that has a deep connectedness between passion (as pain or pathos) and passion (as immense joy). It is reflected in the moment of the ultimate *Kairos*: the Christ event. We further find it as a secondary revelation exemplified as the double revelatory experience Tillich finds in relation to art. It is both abyss and ground. It is power and glory but (what is central to the Christian story) power and glory revealed in weakness. As Paul said, it is a matter of divine glory in clay pots: lowly and breakable.

Putting these points together, a realization that times and situations are constantly changing doesn't mean we need to stop looking to build something lasting; however, we can never do so if we don't take seriously the demands of the moment and, at the same time, realize the limitations of all human achievements!

Notes

1. In some narrative research, one finds that there is a so-called postmodern movement from the grand narratives to the small stories as mediating meaning in doing narrative research.
2. Kierkegaard's "the eternal is the present" (Kierkegaard 1980, 36) seems to be important for Tillich's idea of "the eternal now".
3. Kierkegaard too acknowledges this, it should be said.
4. In Tillich's Christology this concerns essential manhood conquering existential manhood in Jesus as The Christ.
5. As mentioned, a particularly important example of this was the German election of 1933, in the run-up to which Tillich wrote a book called "The Socialist Decision" (which was pulped by order of the Nazi election winners), urging his fellow citizens to see that this was a decisive *kairos* in which the whole meaning of being German was at stake.
6. See Tillich, "Systematic Theology III", pp. 393–396. However, it is an idea he also discusses in many other places in his work.

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23

Philosophical Perspective on Entrepreneurship

Michael Fast

Introduction

From a phenomenological perspective, we can understand the entrepreneur as a phenomenon that is historical and modern, and as deeply connected to the history of humanity. It is also clear that the entrepreneur, in his or her existence as a human being, is acting and is acting situated in a context. This is a matter of being, and of being in the Lifeworld. So the philosophical reflection is on what this means and how to understand the entrepreneur's Lifeworld. What also must be involved in an understanding of this being and acting in the world is that acting is connected to consciousness and that the process of seeing and experiencing must include a perspective that can imply the way of thinking and the way of acting in time and space. The discussion draws upon some of the central scholars in a phenomenological ontology and epistemology, such as Kant, Husserl, Heidegger, Schütz, Merleau-Ponty, and Gadamer. Central in their thoughts are cognition, consciousness, being, and acting in the world. Some others that could have been included in this phenomenological existential perspective are Kirkegaard, Nietzsche, Sartre, and Løgstrup. There are few studies on the entrepreneur and being. Most of them are on Heidegger and being (e.g., Shaw et al. 2011; Seamour 2006; Åsvoll 2012). There are more empirical studies using phenomenological methods (e.g., Cope 2005; Berglund 2015; Steyaert 2007; Popp and Holt 2013).

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A Philosophical Understanding of a Human Being

When we talk about the human being, acting in the world, the questions that arise are how to act in relation to how we can know, and acting in relation to what? Immanuel Kant, in his discussion of cognition and knowledge, states that all cognition starts with the experience and that knowledge is a synthesis of experiences and concepts: without sensing, we cannot be aware of any objects (the empirical cognition); without understanding we cannot form an opinion of the object (the a priori cognition):

There can be no doubt that all our knowledge begins with experience. For how should our faculty of knowledge be awakened into action did not objects affecting our senses partly of themselves produce representations, partly arouse the activity of our understanding to compare these representations, and, by combining or separating them, work up the raw material of the sensible impressions into that knowledge of objects which is entitled experience? In the order of time, therefore, we have no knowledge antecedent to experience, and with experience all our knowledge begins. (Kant 1929/1787, 41)

Even though all our knowledge begins with experience, it does not follow that it all arises out of experience. For it may well be that even our empirical knowledge is made up of what we receive through impressions and of what our own faculty of knowledge supplies from itself (Ibid., 41). The process by which knowledge is acquired is composed of sensation, powers of conception, and understanding. First, we have all had *Space* and *Time* given as pure *priori forms of intuition*.¹ This form of intuition is absolute, and it is independent of and precedes sense impressions. Second, thought has (*reason*) *categories* structuring the way in which we see reality. It is a conceptual apparatus giving meaning to the world that we experience. However, there are limits to knowledge. Kant distinguishes between the phenomena (the world of phenomena) and reality (the noumenal world): we cannot apprehend the mysterious substance of the thing: *das Ding an Sich* (the thing in itself). If we try to go outside the world of phenomena, that is, if we wish to use the concepts outside the limits of the comprehensible world, it will lead to paradoxes, fallacies, and self-contradictions. Reason can only be used legitimately in the practical sphere, that is, if we try to acquire knowledge of the world. If we cannot reach *das Ding an Sich*, then we must be satisfied with *das Ding für Uns* (the things as-they-presents-themselves-to-us).

The realization that reality is relative to man implies that it is no longer tempting to assume that the order existing in reality only results from certain

habits and expectations. Neither is it a question of an objective mathematical structure applying to the very things, independent of man. Kant argues that the objective order in the experience results from a general comprehension which man himself brings into the world, as soon as he begins to experience the world. This general comprehension is a network of concepts arising concurrently with the experience, even though they do not originate in the experience. By virtue of his intersubjective concepts, man persists in a point of view or a certain general perspective, and he creates this perspective through his shaping of everyday reality. Kant claims, for example, that space is the form of our sensory faculty. This makes space a registration of objects and that all the things that we sense receive spatial dimensions. This explains that space is valid to all our sensory experience (but not to the things themselves) and explains what it means that our sciences can only be considered as valid in relation to our sensory experience. More significantly, space depends on the way in which we make the world comprehensible, or, to be more precise, on our conception of the world from substance and causation categories. In other words, our view of space depends on our conception of physical reality as consisting of three-dimensional objects, which can be moved around in time and space. The world is in this way (only) a substratum (foundation) for our cognition and our practical experiences. When we have such limits, we can, with our intellect and reason, exceed or transcend the sensed surrounding world. Kant's discussion of cognition and the development of knowledge is the dialectical process that constitutes the being.

Consciousness and Intentionality

This discussion of cognition and experience raises the question of how we can understand a human being in his orientation in and of the world. The formulation of *intentionality* (see Husserl, *Ideas* 1962; Heidegger 1992; Merleau-Ponty 1994; Schütz 1978a, b) connects being and consciousness, and arises from Kant's discussion of *das Ding für Uns*. This conception made it so that the consciousness of identity no longer appears as an explicandum but, on the contrary, is made the defining property of the mind, that essential property without which the mind could not be what it is. For that reason, it is insufficient, though true and valid as a first approximation, to define intentionality as directness. In other words, in experiencing an act of consciousness, we find ourselves directed to something. For example, in perceiving, we are directed to the thing perceived; in remembering, we are directed to the event recalled; in loving or hating, we are directed to the person loved or hated, and so on

(cf., Gurwitsch 1982, s. 60; Moustakas 1994, s. 50). There is no act of thinking without an object that is thought, no will without the willing of something, no act of judgment without something being judged—it is our consciousness, through intentionality, that creates the impressions of our mind.

This means that intentionality is the structure in consciousness giving meaning to the experience. In intentionality, the subject and an object are connected: the consciousness is directed to something other than itself, and this is why neither experiences nor acts and their goals can be separately analyzed, intentionality being part of the process through which meanings, the logic, and the picture of reality by the actor is created. Intentionality is not intentions but a dimension laying behind it in the consciousness. What is meant is that the very objects are shaped according to the way in which we understand them: the objects do not exist in themselves, that is, they do not exist with meaning in themselves.

Intentionality comprises *noema* and *noesis*, and both refer to meanings. The noema is not the real object but the phenomenon, not the thing but the appearance of the thing. The object that appears in perception varies in terms of when it is perceived, from what angle, with what background of experience, and so on. From whatever angle, the synthesis of perceptions means that the thing will continue to present itself as the same real thing. The thing is out there, present in time and space, while the perception of the thing is in consciousness. Regardless of when or how, regardless of which components or what perception, memory, wish, or judgment, the synthesis of noemata (perceived meanings) enable the experiencing person to see the thing as just this thing and no other.

Noesis constitutes the mind and the spirit, and awakens us to the meaning or sense of whatever is in perception. Noesis brings into being one's consciousness of something, and refers to the act of perceiving, thinking, and feeling, all of which are embedded with meanings that are concealed and hidden from consciousness. The meanings must be reorganized and drawn out (see Epoché²). Every intentional experience is also noetic: "it is its essential nature to harbour in itself a "meaning" of some sort, it may be many meanings" (Husserl 1931, 257 in Moustakas 1994, 29).

In considering the noema-noesis correlate, the significant notion is that the thing "perceived as such" is the noema and the "perfect self-evidence" is the noesis. Their relationship constitutes the intentionality of consciousness: "For every noema there is a noesis; for every noesis there is a noema. On the noematic side is the uncovering and explication, the unfolding and becoming distinct, the clearing of what is actually presented in consciousness. On the noetic side is an explication of the intentional processes themselves. What is

meant noematically is continually changing in perception, the something meant is more, more than what is originally meant explicitly. The something meant achieves a synthesis through a continual perceiving of the whole throughout its angular visions and perceptions” (Husserl in Moustakas (1994, 30)). The working out of the noema-noesis relationship, the textural (noematic) and structural (noetic) dimensions of phenomena, and the derivation of meaning are essential functions of intentionality.

Merleau-Ponty (1994) demonstrates his view on intentionality in another but not quite diverging manner. Merleau-Ponty retains the original characteristics of Husserl’s concept of intentionality, the operative intentionality, “or that which produces the natural and antepredicative unity of the world and of our life, being apparent in our desires, our evaluations and in the landscape we see, more clearly than in objective knowledge, and furnishing the text which our knowledge tries to translate into precise language. Our relationship to the world, as it is untiringly enunciated within us, is not a thing which can be any further clarified by analysis; philosophy can only place it once more before our eyes and present it for our ratification” (Merleau-Ponty 1994, xviii). He argues that intentionality must be seen together with Lifeworld. The conscious or distinct intentionality is not the original: ahead of the conscious act of thought, we “intend” something. When, for example, I reach out my hand to something, I aim at it, not as an imagined or thought thing but as the particular object with which I “associate”: it may be a brush that I need to paint a wall. My consciousness of this object does not have to be declared. My action is “intentional”. I do not expressly think that this is a brush that must be cleaned in order that I can paint the window. This deeper intentionality means that, originally, consciousness is not the notion “I think that”, but “I can”. The conscious reflection or analysis builds upon a richness of preceding unexpressed intentions. The reflection is just a reflection on something that precedes it.

Sight and movement are specific ways of entering into relationship with objects. And if, through all these experiences, some unique function finds its expression, it is the momentum of existence, which does not cancel out the radical diversity of contents, because it links them to each other, not by placing them all under the control of “I think” but by guiding them toward the intersensory unity of a “world”. Movement is not thought about movement, and bodily space is not thought of or represented. Each voluntary movement takes place in a setting, against a background determined by the movement itself. We perform our movements in a space which is not “empty” or unrelated to them, but which, on the contrary, bears a highly determinate relation to them: movement and background are, in fact, only artificially separated states of a unique totality. Within the action of the hand which is raised

toward an object is contained a reference to the object, not as an object represented, but as that highly specific thing toward which we project ourselves, near to which we are, in anticipation, and which we approach. Consciousness is being-toward-the-thing through the intermediary of the body (Merleau-Ponty 1994, 137).

The Philosophical Understanding of the Lifeworld

Life is not something that we face but something that we are in the middle of. Being is consciousness and body acting in the world—*die Lebenswelt* (the Lifeworld)—the world that we daily live in, experience, talk about, and take for granted in all our activities. At the same time, man's approach to the world is *naive*, since, in our natural attitude, we are ignorant of the possibility conditions for our existence. In daily experiences, man takes naturally/naively the whole reality for granted, as a substance existing in itself, and is unconscious of himself and thus also of the role that he himself plays in the experience. The Lifeworld is the immediately experienced world, as it appears before it is subjected to scientific investigation, and thus, also, to the historical reality from which man immediately takes his bearings: the reality we live in every day. This reality can therefore be understood as that which W. James maintains: reality simply means relation to our emotional and active life. The origin of all reality is subjective: all that titillates and stimulates our interest is real. To call a thing real means that this thing stands in a certain relation to us. The word "reality" is, in short, a frame (Schütz 1973b).

Gadamer expresses that Lifeworld is an essential historical concept that does not refer to a universe of being, to an "existing world". Nor can the infinite idea of a true world be meaningful, when created out of the infinite progress of a human historical world in historical experience. It is not this conception of the world that natural science tries to imagine or to acquire knowledge of. The Lifeworld means something else, namely the whole in which we live as historical creatures. And here we cannot avoid the consequence that, given the historicity of experience implied in it, the idea of a universe of possible historical lifeworlds simply does not make sense. It is clear that the Lifeworld is always, at the same time, a communal world that involves being with other people as well. It is a world of persons, and, in the natural attitude, the validity of this personal world is always assumed (Gadamer 1993, 247).

Heidegger's conception of the Lifeworld appears, as he abolishes the "I" and introduces *Dasein* (Being), in the understanding of the subject and of existence: "*Dasein* always understands itself of its existence—in terms of a possibility of

itself: to be itself or not itself” (Heidegger 1992, 33). Any being relates to its own existence, as it is aimed (intended) at the surroundings. The being is toward existence and toward the world, on the background of an understanding of the world. The being exists in the acting and interpretation of itself in the world. Everything that is for the world has an objective; it is from a utility function of a given thing that we understand what the thing is and not from its essential or accidental properties. It is at this point, in the distinction between *essentia* and *existens*, Heidegger and Husserl disagree, and at which Heidegger formulates his *Dasein*: the subject as worldly, the subject as being, as existence, as situated in the world, and as agent—as acting in the world. If we now implicate the being of man under this point of view, and if we ask the question purely phenomenologically, we shall arrive at the conception that the human being itself does not “exist” with a view to something definite. Negatively expressed, man does not exist for any purpose. Put positively, man, unlike other beings, exists with a view to also existing tomorrow. It is life (*Leben*) as self-affirmation or self-preservation. When Heidegger therefore discusses being in the world, he understands it as situated, as existential.

“World”, in this existential sense, would be found in the self-reflective consciousness even of a rather primitive awareness, for which the limits of the world may well be the limits of a village. It is, in this sense, among the most general concepts about existence: the place in which one is. As the analysis then grows more specific and particular, Heidegger is shifting from the various ways and modes in which “world” has meaning, such as “to be of use”, to the more internal and personal modes of self-existence, such as fear, fateful existence, and the awareness of possibilities (Gelven 1989, 57). *Dasein*, then, means being in the world, as in *being in the world*, as a feeling, through experience, of the world as familiar, that is, the world is something that we know and feel safe about and which constitutes our “home”. To-be-in-the-world is the ultimate presupposition of knowledge. The bases of epistemology are the knower and the known. But prior to the distinction between knower and known (or subject and object) is the fact that the subject can relate to a known, which means that the presupposition of the very subject-object distinction is grounded in an already-admitted basis of relationship; that is, the subject has a world in which the object can occur. Knowledge does not occur in isolation from one’s world of concern (Gelven 1989, 60).

Merleau-Ponty conceptualizes Lifeworld in this: that the world presupposes all analyses. We can never escape the world. I am not a “living creature”, nor even a “man”, nor even “a consciousness”; I am the absolute source. My existence does not stem from my antecedents, from my physical and social environment. My existence moves out toward them and sustains them. For I alone

bring into being for myself (and therefore into being in the only sense that the word can have for me) tradition, which I elect to carry. Likewise, the horizon whose distance from me would be abolished—since that distance is not one of its properties—if I were not there to scan it with my gaze (Merleau-Ponty 1994, VIII-).

To Merleau-Ponty, Lifeworld is “livingly” present in our experiences, and it is in the world that we know ourselves. The world is not what I think but what I live through. I am open to the world; I have no doubt that I am in communication with it, but I do not possess it. I can never completely account for this ever-reiterated assertion in my life. This facticity of the world is what constitutes the *Weltlichkeit der Welt*, what causes the world to be the world, just as the facticity of the *cogito* is not an imperfection in itself but rather what assures me of my existence (Merleau-Ponty 1994, XVI-). The Lifeworld is a world that transcends the subject, but which, at the same time, is an experienced world. One can say that it is a circular relation between the world and the subject: the subject is marked by the world and the subject marks the world.³

Merleau-Ponty emphasizes that, above all, the subject is one’s own living body. It is a psychophysical notion, where man is both consciousness and physical.⁴ One’s own body is not a thing we move around in space in the same way as with chairs and tables. It is the subject that moves the thing. The own body is the subject of all action. As subject, the physical being does not exist in space and time, like trees and bushes, tables or chairs, but it *occupies* the space and the time. To one’s own body, a lived space and lived times arise through its being-in-the-world, through its interaction and communication with the world (cf., Merleau-Ponty 1994, s. 243; Bengtsson 1993, s. 74). Space and time manifest themselves to us in our activities. The geometrical space and the chronological time thus do not constitute the foundation of the lived space and the lived time. They constitute an attempt to imagine the lived space and the lived time, respectively, and to control them by means of mathematical constructions. Merleau-Ponty therefore says that: I am not in the space and the time, I do not think the space and the time; *I am to* the space and the time. My body embraces them (cf., Bengtsson 1993, s. 74).

The experience of the Lifeworld is never an opening to a number of incoherent feelings without proving always to be more and something different than purely particular feelings; the experiences are both historical, cultural, and social (Bengtsson 1993, 68). The importance that the experience has always appears against the background of the previous experiences made by the subject. Experience is not free of intellectual influence but rather is always acting on the background of previous experiences. However, the meaning that is active in the experience is not a regular adaptation of concepts and theories.

Neither is it our free choice to choose the experiences that will be actualized in the specific situation of experience. Likewise, the importance of the specific experience to us is not completely determined by the previous experiences, either. That which happens in a specific situation is instead that a new specific meaning arises in interplay with previous experiences. The rising meaning is then capable of changing the meaning of the previous experiences. Merleau-Ponty therefore thinks that if we start from the world that we experience in specific situations and investigate that which turns up in its own existence and fullness, something quite different from universal meanings and particular feelings will appear (cf., Bengtsson 1993, s. 69). The Lifeworld is in this way both ordinary in that it has a meaning, and particular. In other words, it is both spiritual and situated. From the individual point of view, it is thus ambiguous, in a fundamental way.

Entrepreneurship as a Lived Project: Actions and the Dialectics of Experiencing and Seeing

A central issue in the entrepreneur's being and in action is the lived-through project. The "project" can only be understood from the entrepreneur's perspective, as it is a belonging of his or her being in the Lifeworld. Every other interpretation of the "project" can only be limited to the observer's perspective, using his or her theories and experiences of what a project is or could be. These other interpretations can never be the identical and only appear as a shadow of the entrepreneur's projection of his or her project. The actions in and related to the project cannot be understood unless referred to the subject, the meaningful act of the individual, and with a distinction between the action, considered as something in progress, and the complete act. In other words, to place the behavior in an objective context of meanings is not identical with the actor's own meaning context in his or her mind, that is, the actor's subjective context of meaning (Schütz 1972, 27). Action is *episodic*, and thereby a lived-through experience. It is therefore a misunderstanding to take for granted that we can connect meaning with an action as it is lived through, as we are involved in the very action. To connect meaning, in the sense of a reflexive consideration of the act by the actor or others, is something that can only be carried out retrospectively to the concluded act. It is also misleading to say that experiences are naturally meaningful: only that which has already been experienced is meaningful, not that which will be experienced. The reflexive categorizing of action therefore depends on identification of the aim or the project the actor tried to carry through.

There is a difference between action and project that it is essential to understand. The expression *action* describes the behavior of human beings, formed in advance by the actor, that is, behavior based on a preconceived project. The expression *act* describes the result of this ongoing process, as the completed action. Action may be hidden (e.g., the attempt to solve a problem mentally) or occur openly by intervening in the external world (Schütz 1973b, 34). All projecting consists of an anticipation of future behavior by means of fantasizing (i.e., “thinking in the future”). It is, however, not the process of action taking place but the fantasized act, *as if* it were completed, which starts all projecting: what is projected is the act which is the goal of the action and which is brought into being by the action. The project is thus a complex of meaning or context of meaning within which any one phase of the ongoing action finds its significance (Schütz 1972, xx). This places the entrepreneur in an essential position regarding his analysis of his or her own motives and objectives. The essential position appears in that the entrepreneur needs, in relation to understanding him- or herself and the project, to leave the naïve position and enter a reflexive state.

Development of the Entrepreneurial Project: The Reflection on Being and Understanding of the Project

The discussion raises some questions in understanding the entrepreneur’s being, the project, and research on the entrepreneur. The first is about how the entrepreneur in his or her being can be conscious about him- or herself and the project. It is also about one’s understanding of the project and awareness of the project and motives. The second question centers on how we can develop research on understanding entrepreneurs from a phenomenological perspective.

We can focus on knowledge, skills, and competences of the entrepreneur and his or her project, on business opportunities, or on the market. This is not enough, though, to understand either the entrepreneur as a being, or his or her project. The entrepreneur is situated in his or her everyday life, and the entrepreneur’s natural attitude is that he/she is made to do so, because our practical experiences prove that the unity and congruity of the labor (work) worlds are valid. It seems natural to us. Furthermore, we are not ready to depart from our natural attitude toward everyday life without having experienced a certain shock that forced us to break through the boundaries of this

finite province of meaning and change the characteristic of reality for another. These experiences of shock are often made in the middle of everyday life. They themselves are part of its reality. They show that, in the standard course of time, the labor (work) world is not the only finite province of meaning but one of many which are available to one's intentional life. We have the same world of the directly experienced in common: the world that surrounds one's Here and Now corresponds to that which surrounds the Here and Now of other people. My Here and Now includes that of the other person, together with his or her attention on my world, in the same way as the content of me and my consciousness belongs to the world of the other in his or her Here and Now. In this same way, my actual perception is only a fragment of the world of all my experiences as I live from moment to moment (Schütz 1972, 142). A number of research questions could be of interest to pursue this matter of being as an entrepreneur: how narratives affect entrepreneur's everyday of life experiences and what turning points (Abbott 2001)⁵ these experiences generate for the being and the project. Future research is needed into the nature of such experiences, changes of everyday of life and turning points, and what they all mean for the being as an entrepreneur.

The entrepreneur's orientation in being has its departure in his or her understanding, as expressed in intentionality and living experiences. Our situation as human beings is that we are historical beings; we are always standing in the middle of history (Gadamer 1986, 109). Understanding is something penetrating all our experiences, because understanding is a way of existing as a human being. All understanding is ultimately self-understanding (Gadamer 1993, 260). During our entire life, we continue to interpret and reinterpret our experiences in life. Memory itself is a continuously repeating act of interpretation. As we remember the preceding, we reconstruct it in accordance with our present attitudes as to what is important and what is not (Berger 1980, 55).

The discussion of the dialectical movement in understanding is central in Gadamer's (Gadamer 1993) discussion, where his objective is to discuss the universal conditions of understanding and being through a description of what happens in understanding and in the being in the world of man. The start of this discussion is in *Prejudice*, which is something inevitable and indispensable; it is part of the being of man. Prejudice is the specific manifestation of the historical existence of man, because history does not belong to us, but we belong to history. Long before we understand ourselves through retrospection, we understand ourselves in a natural way in family and society. This belonging to history means that prejudice, far more than our own judgments, is in our being.

That we are bound by the situation and that this requires consciousness to achieve *historically effected consciousness* (*wirkungsgeschichtliches Bewusstsein*), involves a claim always to reflect on what it means to understand that we always are standing in and are bound by a situation. In the self-consciousness—consciousness is reflexive—consciousness can withdraw from that of which it is conscious and the context to which it is immediately attached and thus focus on itself in its difference from all other beings.

To be conscious of *the situation* is difficult, because the situation is not something we face but something we are *in*. We cannot perceive it at a distance. It cannot be determined by analytical conditions. We can only maintain the situation as it dictates in any understanding: as that which has barriers. A situation has a horizon.

A *horizon* is the range of vision that includes everything that can be seen from a particular vantage point. Horizons should in the situation of understanding be understood in a certain way, as applied to the thinking mind. For example, we can speak of the narrowness of horizon, of the possible expansion of horizon, of the opening up of new horizons, and so forth (cf., Gadamer 1993, s. 302). The horizon is thus a series of inevitable, implied concepts, theories, and experiences which color our interpretation of life and the world in which we live. The horizon is in constant movement and construction through a process in which we continuously test our prejudices and reinterpret them. Horizon thus is to be understood as if consciousness has a horizon. It always appears in a context, that is, a consciousness of the context in which the single phenomenon is standing. In the Lifeworld, this should be understood in the way that the single object of our consciousness never stands alone but in relation to others. It has a horizon for us. We have a relation to it, and this means that we see certain connections and relations. Understanding can thus be seen as *fusions of horizons* (Ibid., 307). It is not to leave one's own horizon and make oneself acquainted with that of another person and try to reconstruct it but to take an open and receptive attitude in order to acquire experiences, considering the situation. We draw our historicism into the understanding of and in relation to the historicism of the other person. The other person talks from his or her horizon of meanings, prejudices, and questions, and we do the same. We must continuously alternate between penetrating the horizon of the other person and linking this back to our own horizon. Understanding thus has a dialectic character in the interaction between the person who interprets and the meaning formed. In other words, through this interaction, the other person and I will reach something in common. The process of experience and understanding may thus be understood

as change; it is because we change (through self-cognition) that the phenomenon gets another interpretation and meaning.

So the entrepreneur's consciousness of his or her own thinking—the reflexivity of thinking is crucial—is key not only for the understanding of the project but for his or her existence as a human being acting as an entrepreneur. This is both a discussion of a theory of cognition, as in Kant's thinking, and an existential discussion of being. Consciousness is fundamentally an unbroken stream of lived-through experiences which have no meanings in themselves. The meaning depends on reflexivity: the process of turning to yourself and reflecting on the experience of the act. Meanings are connected with actions in a retrospective way. This process of giving meanings retrospectively and reflexively depends on the actor's identification of the aim or the goal that he or she tries to reach.

The second question is a matter of research and the attempt to understand entrepreneurs. Schütz discusses this in his analysis of the things in the world by a subjective analysis of the things in consciousness. He does this by a distinction between “the act of thinking” and “the object of thought” (Schütz 1973a, 102). Schütz attached importance to an analysis of meaning and searched for the underlying elements in what he called “the stream of consciousness”. This is decisive for his analysis, as it introduces the temporal dimension supporting the concept “reflexivity”.

To understand an entrepreneur's act, we therefore have to know about his or her past and future (experiences and projects), and which motives the entrepreneur relates his or her actions to, in order to understand the meaning context. This is a discussion of getting close to the entrepreneur in an attempt to be a part of his or her living experiences. The methods need to include, in relation to the previous discussion of a philosophical investigation of epistemology and ontology, including epoché or phenomenological reduction, the use of qualitative methods such as dialogues and participant-observation. The only way to create a possibility for nearness is in approaching the way we live our lives and that is through interaction and conversation.

It is a matter of sharing a community in time, not only in external (chronological) time but also in internal time (*durée*), as Schütz implies, that any actor participates in the progressing life of the Other and can capture the thoughts of the Other in a living presence, as they are built up step by step. They must thus share the anticipations of the future with each other as plans, hopes, or anxieties. In short, they are mutually involved in the biography of each other. The point is how two “streams of consciousness” get in touch with each other, and how they understand each other. Schütz expresses it quite simply when he

talks about the connection as the phenomenon to “grow old together”, to reach toward the other and understand the inner time (*durée*) of each other. In fact, we can each understand all others by imagining the intentional acts of the other when they happen.

Apart from the pure We-relations between contemporaries, we can never capture the individual uniqueness of a fellow being in his or her unique, biographic situation. In the structures of the common-sense thinking, the Other appears, at best, as a partial Self, and he or she even forms part of the pure We-relations with only part of his or her personality. If I enter into interaction with another person, my structure of the Other as being a partial Self, as the performer of typical roles or functions, has a correlate in the self-classification process taking place if I enter into interaction with him or her. I am not involved in such a relationship with my entire personality but only with certain layers of it. By defining the role of the Other, I undertake a role. By typifying the behavior of the Other, I typify my own which is connected to his or hers, convert myself into an entrepreneur, a student, a passenger, a consumer, a tax payer, and so on (cf., Schütz 1973b, s. 31).

But one thing is clear: everything I know about another’s conscious life is really based on my knowledge of my own lived experiences. My lived experiences of another are constituted in simultaneity or quasi-simultaneity with their lived experiences, to which my experiences are intentionally related. It is only because of this that, when I look backwards, I am able to synchronize my past experiences of others with their past experiences (Schütz 1972, 106). My own stream of consciousness is given to me continuously and in all its perfection but that of the other person is given to me in discontinuous segments, never in its perfection, and exclusively in “interpreted perspectives”. This also means that our knowledge about the consciousness of other persons can always be exposed to doubt, while our own knowledge about our own consciousness, based as it is on immanent acts, is in principle always indubitable. In the natural attitude, we understand the world by interpreting our own lived experiences of it. The concept of understanding the Other is therefore of the concept: “our interpretation of our lived experiences of our fellow human beings as such”. The fact that a “You” confronts me as a fellow human being and not as a shadow on a screen, in other words that the Others embody duration and consciousness, is something that I discover through interpretation of my own lived experiences of him or her. In this way, the very cognition of a “You” also means that we enter into the field of intersubjectivity, and that the world is experienced by the individual as a social world. Research questions in this are a matter of cognition and of methods to understand the entrepreneur. For example, how can we understand the other—the entrepreneur—not only

as a discussion and as use of qualitative methods but also of what could the theory of cognition be? How can we capture the experiences of a population of entrepreneurs, through qualitative methods, and state something meaningful about being an entrepreneur? What are the demands for such a theory of cognition, and in which way can a phenomenological perspective be applied to researching entrepreneurship?

Conclusion

This ontological reflection merely stresses some of the long traditions of philosophical discussion, and, in an attempt to sum up on this, we can see the discussion in light of two dimensions that stress the importance from a phenomenological point of view: ontology and epistemology. The ontological dimension points out that the entrepreneur's being is about consciousness and body, thinking of the world and acting in and to the world, that the Lifeworld of the entrepreneur is his or her project and the meaningful experiences he or she is developing. The entrepreneur is directed to it, through thinking and acting, and has lived through and created meaningful experiences. It is also clear that the entrepreneur is situated and, within this, has a horizon, meaning that he or she is thinking of the project in a certain way. The intentionality in the entrepreneur's consciousness is, in a certain way, making him or her identify and interpret something as important, and to not see other things. The being is also toward the Other, and the social world will matter, related to what will be visible and appear to the entrepreneur and his or her creation of the being and becoming. The social, meaning intersubjectivity through interaction and understanding, is a dimension in the being and in the becoming of the entrepreneur.

The epistemological view in relation to this ontology of being, has some implications. To understand the entrepreneur, we must get close to him, which demands time. It is entering his or her space and time, and interacting in the manner Schütz and Gadamer discuss, that is, using an idiographic approach in interaction with the entrepreneur: the attempt to understand the uniqueness. It must focus on the experiences, action, and the motives interpreted by the entrepreneur in his or her Lifeworld.

All of this is about understanding the dialectics of the everyday life of the entrepreneur. It is the movement in the entrepreneur, and the movement in his or her Lifeworld and the context involved. The dialectic is in the entrepreneurs' development of thinking and acting, and thinking and acting in another way, because of the new experiences and his or her meeting of something new.

The way we can understand this, and how the entrepreneur develops the project, is by the contradictions in the understanding of the project and in understanding his or her own thinking on the project. The dialectic in this concerns the changes in handling the situations, from rethinking the way of seeing the project and the situation, to reasoning on it, to acting in another way. Therefore, the dialectic is a learning process of trial and error, and of learning by doing. It involves both an understanding of the entrepreneur and also the essence of the research process on entrepreneurs.

The dialectic is, as well, a matter of understanding the context of the entrepreneur and his or her project. It is about raising questions on how we can understand the development of that context if we posit that all development can be understood as dialectical, both in the development of thinking, and as the development of the history. The understanding of the entrepreneur is also to understand the movement of his or her project through contradictions, as contradictions are a part of all life.

Notes

1. Knowledge a priori is knowledge exclusively originating from rational thinking and which precedes and is independent of experience. Actually “Forms of intuition” should be more exact if translated to “forms of perception”, and more in line with Kant’s thoughts. But in the first three translations, the former was used and still is. In German: *Formen der Anschauung*.
2. *Epoché*—a philosophic method that has the purpose of separating the existence of the object and its contents: to put the existence in brackets and not use it. What is left outside the initial reduction are the complete contents of the experienced objects as pure (ideal) phenomena, as intentional objects through the intentional act (cf. Bengtsson 1993, 36). A condition is that existence is regarded as a performance of consciousness; that is, it is the consciousness that constitutes the experience as real. In the natural attitude, we hold knowledge judgmentally; we presupposed that what we perceive in nature is actually there and remains there as we perceive it. In contrast, *Epoché* requires a new way of looking at things, a way that requires that we learn *to see* what stands before our eyes, what we can distinguish and describe (Moustakas 1994, 33).
3. This conception of Merleau-Ponty originates in his early inspiration by dialectics (from a Marxist conception) and a configuration of contrasts. A dialectic conception is generally incorporated in hermeneutics in relation to interpretation and understanding, as in phenomenology.
4. As Merleau-Ponty (1994, XIX) says, when he discusses the necessity of *not* looking upon the world from different isolated views, referring to Marx’ state-

ment on historical development: “It is true, as Marx says, that history does not walk on its head, but it is also true that it does not think with its feet. Or one should say rather that it is neither “head” or “feet” that we have to worry about, but its body”.

5. For a recent example on the use of turning points in business research, you may refer to Turcan (2013) who applied the concept of turning points from the ontological, epistemological, and methodological perspectives to the de-internationalization phenomenon to exemplify its deployment.

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