# Practice, Learning and Change

## Practice-Theory Perspectives on Professional Learning

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Volume 8

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Paul Hager • Alison Lee • Ann Reich
Editors

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*This book is dedicated to the memory of Lars Owe Dahlgren, whose untimely death occurred as the book neared publication.*

# Foreword

This splendid volume reveals a way of thinking gathering steam. For three decades now, theorists and researchers have approached social life through the concept of practices. They have operated with different conceptions of practices and practice. These conceptions have spawned diverse ideas about key features of social phenomena and how to study them. The scholars involved have also disagreed about whether practice thought is or is not compatible with this or that other theoretical scheme. This diversity has made practice theory and research a lively humanistic social enterprise.

One sign of a maturing theoretical approach in the social disciplines is that its defenders spend less time explaining and justifying it and more time putting it to use and pushing into new areas of research. The present volume takes seriously the idea that social life is a field of practices. Taking this attitude implies, among other things, analysing social phenomena with concepts designed to capture aspects of this field and abandoning familiar concepts, such as that of groups, that reflect alternative ontologies. In taking these implications to heart, *practice, learning and change* represents an important advance in the practice approach.

The volume provides an excellent overview and catalogue of different conceptions of practices. It also offers insightful analyses of phenomena that practice approaches—though not these alone—deem central to social life: materiality, knowledge, embodiment, meaning and change. Change, in particular, receives sustained treatment as something that constantly befalls practices as they are enacted, possibly to spread therefrom. The volume also extends practice thought to a topic it has hitherto not fully considered, namely, learning, in particular professional learning, the sort of learning that professionals undergo especially, though not exclusively, in the workplace. As several contributions explain, practice approaches challenge prominent paradigms in learning theory in conceptualising learning as practice and as occurring via and in practices. 'Learning practice' forms a remarkably rich phenomenon, many of whose dimensions are plumbed in this book. In construing learning as a process that continually transpires as practices are enacted, the book draws practices, learning and change into a tight embrace.

Importantly, *practice, learning and change* also ponders larger congeries of practices and explores how larger congeries can be analysed with such contemporary social theoretical concepts as ecologies, systems, networks and assemblages. The volume thereby asks whether existing theoretical schemes can be appropriated to understand wider landscapes of practices. Examples of such schemes include actor-network theory, socio-historical activity theory, ecology, the analytics of governmentality and, above all, systems or complexity theory, which several authors draw on to understand fields of practice.

In short, there is something for every social researcher in this volume: presentations of key concepts and theories of practices, discussions of phenomena central to social life, innovative analyses of learning, fine ethnographical moments, practical ideas about redesigning practices and reorganising professional education, and discussions of connections between practice approaches and other theoretical starting points. Phenomenologically, finally, the book nicely shows how, for practice-based approaches, moment-to-moment ongoing social life exhibits considerable adaption, innovation, new starts and emerging or dissipating configurations.

Theodore R. Schatzki

# Preface

## Practice, Learning and Change

Literature on professional learning and its closely associated cognates, for example, workplace learning, work-based learning and organisational learning, has expanded and proliferated impressively over the last decade. As such, professional learning constitutes an important emerging field of study but one that is still maturing. The genesis of this book lies in our strong conviction that, so far, work on professional learning has been too fragmented. One aspect of this fragmentation is that this new field has attracted contributions from many different disciplines and academic fields. Contributions have come from psychology, philosophy, sociology, organisational studies, workplace learning, higher education and so on. We do not doubt that each of these disciplines and specialist fields has contributed important insights. But, left to themselves, the insights produced by each are necessarily limited and constrained. For instance, the philosophers seldom engage significantly with the 'real' world of work; organisational studies literature does not sufficiently theorise learning; and workplace learning literature tends to downplay the organisation of practice. As well, there has been, too often, little connection between researchers across these fields. This has resulted in a situation where, too frequently, good work is little known outside of its own theoretical frame or perspective.

Thus, one major focus of this book is to take a decisive step towards overcoming this fragmentation by bringing together contributions by key people from different theoretical frames and perspectives on practice and learning. Indeed, this book project grew out of a University of Technology, Sydney, reading group that consciously chose to study work from across the diverse theoretical frames and perspectives that have contributed to our understanding of *practice*. The wide diversity of perspectives studied led to the other major focus of this book, which is to problematise the notion of practice itself. Whilst a close reading of the available literature shows that the notion of practice is far from being uncontested, the term is also widely employed as though its meaning is straightforwardly obvious. This problematisation of practice leads, we believe, to novel insights about learning and change and the relationships between these three concepts. Hence, as the main title of this book proclaims, most of its contributions deal with practice, learning and change, as well as their interconnections. This latter point is vital since, whilst it is illuminating, and even necessary,

to consider each of these three concepts separately, much of the substance of the arguments can only be appreciated by considering the crucial connections among the three concepts. In particular, the present book explores in detail various facets of the notion of *learning practice*. The various nuances arising from the juxtaposition of learning and practice are complemented by ideas surrounding *learning and change* and *practice and change*. Taken together, these themes and ideas result in this book developing a new appreciation of the significance of the *practice, learning and change* nexus.

The authors of the following chapters have been deliberately chosen for what they can contribute to the dual aims of bringing together ideas from the various disciplines and theoretical frames, whilst at the same time problematising and illuminating the relations among *practice, learning and change*. The authors are representative of a growing community of scholars who are turning their particular expertise to the study of professional learning. Australia, mainland Europe and the UK are but some of the locations of this burgeoning research programme. The authors also constitute a selected mix of well-known writers on professional learning, together with some emerging researchers who bring fresh and stimulating insights to this important field of research.

It should be noted that in employing the term 'professional learning', we are not entering into debates about whether or not a particular occupation is a profession. The diversity of the worksites discussed in the various chapters of this book, for example, chefs, doctors, orchestral musicians, shows that we are using the term 'professional' in a broad and inclusive sense. Nor is professional learning restricted to 'professionals' as traditionally conceived, since practice theory introduces the notion of co-production involving both clients and professionals. A further key point is that whilst most of the chapters specifically address learning from professional *paid* work, the ideas developed herein are equally applicable to learning from work in its wider sense, such as domestic work of all kinds; voluntary work, whether institutionalised or non-institutionalised; and engagement in structured hobbies and recreational activities.

Overall, this book offers a unique contribution to research on professional learning—a novel, broadly sociomaterial theorisation (Orlikowski 2007) of practice, learning and change. The book draws on and brings together fields that have been traditionally kept apart, including complexity, change and organisational studies. It achieves this through the lens of a robust engagement with what has been termed the 'practice turn in contemporary theory' (Schatzki et al. 2001) and the positing of a specific 'practice epistemology' (Schön 1995; Green 2009). It supplements current thinking about learning, particularly the sociocultural conceptions of learning, with the resources of practice theories that attend to the regularities: 'architectures' (Kemmis and Smith 2008), 'dynamics' (Green 2009) and 'ecologies' (Stronach et al. 2002; Kemmis et al. [Chap. 3, this volume]) of practice. It advances site-ontological studies of practice and learning, making an important contribution to the theorisation of practice through its focus on learning and on how practice is changing, in the contexts of changing social and institutional arrangements.

We frame the book in Chap. 1 in terms of how the practice turn makes visible new questions for professional learning and for imagining change in relation to professional practice. The remaining chapters are loosely organised in three sections, the first of which addresses broad theorisations of practice as they pertain to and are taken up in studies of professional learning. Hager proposes, in Chap. 2, a continuum of theoretical accounts of practice in terms of them being more or less 'exclusive' as to what constitutes a practice, moving us to accounts that offer rich resources for reconceptualising professional learning. In Chaps. 3 and 4, Kemmis, Edwards-Groves, Wilkinson and Hardy expound on the concept of 'ecologies' of practice, and Johnsson explores ideas of the 'tempo-rhythm' of practice, drawing on performance studies. These two chapters offer new ways into understanding professional practice as consisting of extra-individual as well as individual characteristics, thereby setting up the challenges for theorising professional learning that are taken forward in different ways in subsequent chapters. Fenwick, in Chap. 5, provides an overview of three sociomaterial approaches to understanding practice as 'matterings of knowing and doing': cultural-historical activity theory, actor-network theory and complexity theory. Each of these perspectives conceptualises knowledge and learning that emerge in the relations between human and non-human elements, drawing out different aspects of the material conditions for the production of practice, knowledge, power and subjectivity. The final chapter in this section, by Paolo Landri, argues for a theoretical 're-turn' to practice in the study of education, thereby foreshadowing the challenges for professional education that underlie many of the discussions in the book.

The second section presents a set of investigations of particular kinds of professional, workplace and educational practices that might be collectively glossed as learning practices. Here, in Chap. 7, Manidis and Scheeres draw on Schatzki and Gherardi to theorise workplace learning in a study of hospital emergency departments. Through a close analysis of interprofessional practice around a patient's bedside, they particularly use Gherardi's 'knowing-in-practice' to theorise knowledge as emergent and co-constructed in situ through language, actions, relationships and material arrangements.

Following this, Lancaster and Davis (in Chaps. 8 and 9) present different but complementary discussions of the potential within complexity theory to account for phenomena of 'emergence' and of 'knowing how to go on' in practice. These chapters engage directly with ideas about change to be taken up more explicitly in the third section. Both address fundamental questions of the relationship between learning and practice, looking back, in Lancaster's case, to Deweyian pragmatism and, in Davis', outwards into the challenges of neo-liberal regimes of practice that 'proceduralise' practice and learning and, hence, the professional education of managers.

Chapters 10 and 11 move us further to accounting for the relations of power that govern practices in neo-liberal regimes, offering accounts of new kinds of work practices that can be understood as learning practices—the 'activation' of professionals to continually learn as part of engaging in their work. In Chap. 10, Reich and Girdwood present a discussion of governmentality to explain how child protection workers are required to engage in new kinds of learning practices as part of their

work and, hence, to become particular kinds of learning subjects. Fejes and Nicoll further develop these ideas in Chap. 11 in their close-up look at how these kinds of 'activations' work rhetorically through the interactions between manager and workers in an aged-care facility.

The last two chapters in this section return us to the challenge of thinking about professional education through the lenses of practice theories. In Chap. 12, Abrandt Dahlgren, Dahlgren and Dahlberg reread problem-based learning in health professional education through Schatzki's theorisation of practice, whilst in Chap. 13, Zukas and Kilminster address critical questions of 'transition' from one phase of professional learning to another, whether that be from education into professional practice or from one phase of professional responsibility to the next. They identify 'critically intense learning periods' that mark these transitions, which they explore through investigations of the sociomaterial circumstances of these shifts in responsibility.

The third section engages directly with the questions of change implied or prefigured through many of the previous chapters and places particular insistence on the *relationality* of practice. Silvia Gherardi's examination of the problem of why practices change and, conversely, why they persist gets to the heart of many examinations of practice and learning. She proposes a set of resources from practice-based organisation studies for thinking about learning and innovation that range from a focus on routines to the significance of affect, for example, in considering questions of practitioners' attachments to practices. Gherardi's question is a fundamental one to many researchers of professional practice, as they work, often in collaborative partnerships, across the boundaries of academic-disciplinary formations and professional and organisational contexts of practice. Subsequent chapters in this section engage with particular problematics across these boundaries.

The final three chapters discuss recent empirical studies of learning and change, from a range of domains of organisational and professional practice. Each takes up a particular theoretical challenge of change and each theorises change in terms of the dynamics of practice and learning. In Chap. 15, Price, Johnsson, Scheeres, Boud and Solomon extend Schatzki's theorisation of practice to a study of organisational practice to account for how practices persist, perpetuate and change. This chapter is rich in its empirical grounding and offers an account of persistence and change that is complementary to Gherardi's.

In Chap. 16, Hager and Johnsson develop their conceptions of collective learning through a discussion of a set of case studies—of a symphony orchestra, a commercial kitchen and a correctional facility, making visible the dynamics and complexities of the orchestration of practice and offering new insights into what it would take for practice itself to change, as distinct from the minute adjustments involved in any collective choreography. In contrast, Lee, Dunston and Fowler analyse, in the final chapter, an instance of health-care practice that represents a decisive change from more traditional health professional architectures of power, authority and action. Here, the resources of practice theory and pedagogy are brought to bear in an exploration of the pedagogical force of changing modes of professional practice and professional-client relationships. These new modes, such as partnership-based practices, are projected, imagined and mandated within much policy reform in health

care worldwide but exist in a constant state of tension and disappointment in relation to the difficulties of achieving such widespread change.

Altogether, the book showcases a body of distinctive international research in the study of practice and of professional and workplace learning. Its substantive chapters address theoretical questions derived from empirical studies in higher education, workplace learning, health professional practice and continuing professional learning. Our hope is that this book constitutes a rich and groundbreaking whole.

Paul Hager, Alison Lee and Ann Reich

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# Contents

# Chapter 1
# Problematising Practice, Reconceptualising Learning and Imagining Change

**Paul Hager, Alison Lee, and Ann Reich**

## Introduction

The relationship between professional practice and learning is the key focus of this book. Practice is most commonly to be found co-located with various domains – legal, teaching, yoga, etc. – where attention is focused on the domain of the practice and the concept of practice itself is taken for granted. The term practice refers to many things and is used in many different ways, some deliberate and others less so. Drawing on van Manen's (1999) observation that practice is one of the least theorised concepts in the discourses of professional fields such as health or education, Green (2009a: 2) notes that practice is:

> a term that circulates incessantly, and seems constantly and sometimes even compulsively in use, without always meaning much at all. Rather, it seems to float across the surface of our conversations and our debates, never really thematised and indeed basically unproblematised, a "stop-word" par excellence.

In recent educational literature, and in literature on workplace and professional learning, references to 'practice' and 'practices' also abound, yet the meanings attached to these terms are ambiguous and rarely interrogated. A scan of related literature on education and learning produces collocations such as professional practice (Green 2009a, b; Kemmis 2011), vocational practices (Usher and Edwards 2007; Billett 2010), workplace practices (Wenger 1998; Hager and Halliday 2006), literacy practices (Baynham and Baker 2002), pedagogic practices (Billett 2002),

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doctoral practices (Boud and Lee 2009) and so forth. It has even been proposed that education itself should be conceived as 'initiation into practices' (Smeyers and Burbules 2006). There is a curious slippage between the idea of 'practice' and that of the foregoing classifier, such that the semantic weight sits with the 'vocational', 'literacy', the 'workplace' or the 'profession'. Practice, and practices, often appears curiously devoid of semantic force, grammatical place-markers, standing in for conceptual work rather than actually undertaking that work.

Increasingly, however, scholarly disciplines concerned with the conduct of social life see human activity – practice – as a primary building block of the social. We propose that problematising and clarifying the concept of practice will enable a reconceptualisation of learning, which, as we will argue below, presents continuing conceptual problems in its different social manifestations and contexts. For this reason, the concept of practice becomes the primary organising idea for this book. Our purpose is to develop a conceptual framework for researching learning in and on professional practice. To do this, we will embark on a process of defamiliarising taken-for-granted ideas about practice – to rethink and relearn old elisions, conflations and silences. In a deceptively simple assertion, Kemmis (2005: 23) notes that practice 'is what people do, in a particular place and time'. But, as Green (2009b: 41) asks, following Bourdieu: 'How do we understand "this strange thing that practice is"? How best to think about practice, as a distinctive concept in itself? Why? Why is this worth doing?' Further to this, we ask: What is the value in thinking about practice through a focus on learning? Can it help in the development of more robust accounts of how practices are made, how they are sustained and how they are changed? What can this focus make visible about the relations among practice, learning and change?

In this chapter, we first outline five key principles for thinking about practice. Then we go on to consider how they may extend understandings of professional learning and how practice-theory perspectives on professional learning help us to grapple with the problem of change.

## Five Principles for Theorising Professional Practice

Over the past decade or so, there have been a range of accounts of different traditions in the theorisation of practice, one of the most widely cited and influential of which is the collection titled *The Practice Turn in Contemporary Theory* (Schatzki et al. 2001). More recently, Kemmis (2005, 2009) and Green (2009a, b) have scoped the theoretical literature on practice within the specific subdomain of professional practice. Of particular significance in this regard is what Green (2009a) terms two 'meta-traditions' in the theorisation of practice, the 'neo-Aristotelian' and the 'post-Cartesian'. Recent work drawing on the first of these meta-traditions is a special issue of the journal *Pedagogy, Culture and Society* on 'Knowing Practice' (Vol. 13, No. 3, 2005). The second encompasses a range of theoretical

traditions challenging the various dualisms characterising modernist theorising – mind/body, individual/social and structure/agency – whilst simultaneously positing practice itself, theorised in a range of ways, as the very 'site of the social' (Schatzki 2002). Our particular purpose in setting out five principles for theorising professional practice in this section is not to add a further taxonomic account but to set up a further set of implications for the theorisation of professional learning, which are taken up in different ways in the chapters of this book.

Our first principle for theorising practice is that practice is more than simply the application of theoretical knowledge or a simple product of learning. To elaborate this principle, we need an account of the relationship between practice and knowledge that sees knowledge as more than something possessed in the mind or a 'thing' to be transmitted. Philosophers of practice in the neo-Aristotelian tradition, such as Flyvbjerg (2001), Kemmis (2009) and Carr (2009), have re-engaged with Aristotelian notions of phronesis, a disposition towards practical knowledge and an associated consideration of ethics. Reasoning in this work is based on action and experience, thus presenting a kind of embodied practical rationality as an alternative to scientific-technical rationalities that have dominated accounts of professional practice and professional learning. Knowledge, then, can be conceptualised as a process of 'knowing-in-practice' (Gherardi 2008: 523):

> which is mediated and propagated both by interactions between people and by the material arrangements in the world, which is discursively constructed, which is diffused, fragmented and distributed as a property of groups working within a situated material environment and within a situated and discursively sustained social world.

Practice, then, consists of the relations among the everyday interactions, routines and material arrangements in particular environments and forms of knowing generated from these. Knowing-in-practice is a collective and situated process linking knowing with working, organising, learning and, as Gherardi suggests in this collection, innovating.

Expanding the conceptual frame, our second principle emphasises understanding practice as a sociomaterial phenomenon, involving human and non-human actors in space and time. The theoretical work of Ted Schatzki has been an important source of thinking for many of the writers in this book. For Schatzki (2001: 2), practices are 'embodied, materially mediated arrays of human activity centrally organised round shared practical understanding'. A practice is a 'nexus of doings and sayings organised by understandings, rules, and teleoaffective structures' (Schatzki 1997: 3). By this, Schatzki is referring to the 'linking of ends, means, and moods appropriate to a particular practice or set of practices and that governs what it makes sense to do beyond what is specified by particular understandings and rules'. That is, it is purposeful (teleo), people are invested in it or attached to it (affective), and it generates meanings of its own (understandings and actions). Theorisations of practice, including, but not limited to, Schatzki, will be outlined and explicitly subjected to scrutiny in the following chapters of this book.

Closely related to the second principle is the third – that practice is embodied and relational. As Green (2009b: 49) suggests, practice consists of

> speech (what people say) plus the activity of the body, or bodies, in interaction (what people do, more often than not together) – a play of voices and bodies. In this view, practice is inherently dialogical, an orchestrated interplay, and indeed a matter of coproduction. Among other things, this allows a better, sharper sense of practice as always-already social.

Relationality in practice consists of relations among people and the material world. Shotter (1996: 293–94) argues that 'it is in the continuously changing "spaces" between people that everything of importance to us in our studies should be seen as happening'; it is in the 'disorderly, everyday, background, conversational activities' that we 'create between ourselves, dialogically, certain, particular person-world relations'. Whilst virtually all contemporary theorisations of relationality recognise the crucial roles in relational networks of both humans and non-human objects, such as technologies and spaces, there is diversity of opinion about the sense in which non-human objects display agency. Some (e.g. Fenwick and Edwards 2010) regard agency as being the same across human and non-human actors, whilst others (e.g. Luntley 2003) maintain that human agency is qualitatively and crucially different from non-human agency. Nonetheless, contemporary theorisations of professional practice, in particular, are at pains to emphasise relational complexity through concepts such as ecology, network, choreography and orchestration. Practices, in this sense, are always co-produced by a range of actors in space and time. The chapter on partnership practice in child and family health by Lee, Dunston and Fowler (Chap. 17) in this volume elaborates this point.

Supplementing this third principle is the fourth: that practices are neither stable, homogeneous nor ahistorical. Practices exist and evolve in historical and social contexts – times, places and circumstances – and they take shape at the intersection of complex social forces, including the operations of power. Particular regimes of practice govern the way we work, practice and learn – how we govern ourselves and govern others. 'Governmentalities' shape the ways of thinking and acting across local sites and circumstances, augmenting and supplementing theoretical accounts of local doings and sayings. In recent times, the complex relationships among neoliberal government reforms, new kinds of learning practices as work practices in organisations and practitioner subjectivities have been increasingly recognised and investigated. This is reflected in several chapters in this collection – for example, in accounts of aged care in Sweden, child protection workers and public sector managers in Australia, and doctors in the UK. These are not uniform ideologies that have been forcefully imposed but assemblages or regimes of practices with some common threads of particular economic theories (new public management and human capital theory), which are translated differently in each location and time. The effects on everyday practices can become visible through conceptual tools employed by different writers in this book. Although coming from variations in philosophical perspectives, regimes of practices and the ways of thinking and governing practices (based on Foucault's later work and governmentality writers such as Rose, Miller and Dean, as discussed in the Chaps. 10 and 11 by Reich and Girdwood and Fejes and Nicoll in this volume) have similarities to other practice theorists' connections of local practices with sociopolitical and organisational arrangements. For example, Kemmis' work on 'exoskeletons' or

practice architecture – 'the mediating preconditions that shape practices' (Kemmis 2009: 37), or his complexes of practice as pre-existing cultural-discursive, material-economic and social-political arrangements (Kemmis and Grootenboer 2008), and Schatzki's 'practice-arrangement bundles' (Schatzki 2011), the networks or assemblages of actor-network theory (ANT) approaches and the 'systems' of complexity approaches. These theoretical or conceptual resources make visible in their diverse ways the effects of these complex assemblages and power relations on everyday work and learning practices.

This leads to a fifth principle: that practices are emergent, in the sense that the ways that they change and evolve are not fully specifiable in advance. This emergent character of practices means that analytical categories such as micro-macro, structure-agency and system-lifeworld are destabilised, and new forms of categorisation become salient: ecologies, dynamics, choreographies and so on. These theories must account for space-time relations, materiality, embodiment and affect. Understanding of practices has an inherent retrospective dimension. However, if the 'evolution' of practices is not fully specifiable in advance, neither are they fully specifiable in hindsight. This is so because some aspects of practices are tacit, that is their precise specification is somewhat elusive.

This set of principles does not attempt to represent an exhaustive theoretical account of the characteristics of practice. Kemmis, for example, elaborating his earlier work identifying five traditions in the study of practice, lays out no fewer than 14 characteristics that he argues are distinctive to social practices (2009: 23–24). Practices in this account are teleological; value-laden; extra-individual; theoretical; institutional/cooperative; embodied and situated; involving practical reasoning; transformative; reflexive; and culturally, discursively, materially, economically and socially formed and structured (Hopwood 2010). Each of these creates a resource for closer examination for their applicability to understandings of professional practice. Each, too, implies or works with a set of assumptions about change: change for the individual learner or practitioner, or group of practitioners, change in practices themselves and larger-scale change in organisations, policies and systems.

## Theories of Learning: A Brief Outline of the Literature

Learning, in contrast to practice, has been extensively theorised over much of the twentieth century, and its various 'contexts' articulated and accounted for (in educational and non-educational settings, in workplaces, in organisational and professional settings (e.g. Usher and Edwards 2007; Kalantzis and Cope 2009; Eraut 2009)). For practical purposes here, we can classify the field into three main groups, drawing from Merriam et al. (2006) and Hager (2011). These are broadly, cognitive-psychology-based theories, socioculturally referenced theories and what Green has termed 'post-Cartesian' and Fenwick et al. (2011) term 'sociomaterial' understandings of learning.

Cognitive-psychology-based theories of learning, despite wide variation, have a number of characteristics in common. Their primary focus is on the individual learner and largely on rational and cognitive processing. Practice is construed as thinking (or reflection) followed by the application of this thinking or reflection, and the concept of learning is simply assumed to be unproblematic. Learning is treated as a 'thing', in the sense that 'it' can be 'acquired' and 'transferred' by learners. The significant role of social, cultural and organisational factors in learning is underestimated. At best, they serve as a backdrop against which learning occurs. (For a fuller account of this large category of learning theories, see Kalantzis and Cope 2009; Merriam et al. 2006.)

Sociocultural theories of learning, in contrast, problematise these assumptions. Rather than the individual learner being the primary focus of analysis, the emphasis is on social aspects of learning. In some instances, attention is directed exclusively onto the social (e.g. Lave and Wenger 1991). In others, an account is offered that encompasses both individual and social learning (e.g. Hodkinson et al. 2008); indeed, there are significant challenges within sociocultural learning theories to the idea that learning has to be exclusively either individual or social. These theories construe learning as an ongoing process of participation in suitable activities, thus rejecting the idea that learning is primarily a product or a 'thing'. All sociocultural theories thus reject the supposed independence of learning from context, seeing learning and performance as being significantly shaped by social, organisational, cultural and other contextual factors. Further, they recognise the importance of the embodied nature of learning and performance, thus rejecting mind-body dualism and related dichotomies. Learning and performance seamlessly integrate a range of human attributes that is much wider than just rationality. Sociocultural theories have a marked tendency to problematise the concept of learning and to seek to re-theorise it. Cultural-historical activity theory (CHAT) (Engeström 1999, 2001), whilst not a theory of learning per se, has been widely taken up in educational research and research on professional and workplace learning.

'Post-Cartesian' theorisations of learning include post-structuralist perspectives on learning, some of which (e.g. Usher and Edwards 1994, 2007; Fejes and Nicoll 2008) take up Foucault's challenge to the humanist unified self, the importance of power/knowledge and the ways learning is 'made up' in subjectivities and in governing of the self and others. Others take up psychoanalytic (Britzman 2009) and cultural studies (Todd 1997), theories of pedagogy and learning as desire and struggle. More recently, sociomaterial approaches, such as actor-network theory (Fenwick and Edwards 2010; Mulcahy 2007; Gherardi and Nicolini 2000) and complexity (Davis and Sumara 2006; Osberg and Biesta 2007; Chap. 8 by Lancaster, this volume), emphasise the ongoing, temporally changing process constituting learning, intimately bound up with practice and change. In these views, learning is not fully decidable in advance; rather it emerges from contexts and practices in unanticipated and unpredictable ways. Contexts are not static or given but dynamic, contingent and undecidable (Green 1991), constituted through and constituting

practices, subjectivities and knowings. Within the broad conception of the sociomaterial, there are different emerging bodies of work, one of which is the move beyond a human-centric focus to networks of human and non-human actors, including material objects and arrangements. Other takes on complexity, such as Tsoukas (2008), posit an 'open-world ontology' characterising an ecological approach to the study of practice, where indeterminacy, emergence and embedded, interactive accomplishments replace the Newtonian rationalities of rules and structures. Whilst not theorising learning per se, work such as Tsoukas' offers rich new ways of conceiving the intimate interrelationship among learning, practice and organisation that can supplement current work within the sociomaterial traditions.

Theorisations of professional learning have traditionally focused on individuals and have commonly deployed predominantly linear metaphors of professional learning and education such as the novice-to-expert trajectory (e.g. Dreyfus and Dreyfus 1986; Dreyfus 2001) or the transition from formal education to work (e.g. Dahlgren 2011). In contrast, theorisations of practice shaped by the five principles sketched above replace such linear notions of learning with more complex and dispersed sets of activities.

Even within a focus on the individual practitioner, contemporary learning theories view a person's practice as participation in a continually evolving process. The practitioner is an embodied subject produced through participation in practices that shape skills, knowledge, understanding and disposition to action. Here, professional learning becomes an evolving relational web, a process of ongoing change. Learning is transactional in that it changes both the learner and their context, viewed both widely and narrowly. In a developmental sense, for an individual, theoretical knowledge becomes something that a novice practitioner requires, to prepare them to embark on learning a practice through practice (Billett 2011). This process inevitably involves identity change, both subjective and objective – from novice to expert and various stages in between. It involves a notion of 'becoming' (Scanlon 2011; Hager 2008; Hager and Hodkinson 2009). There is thus a close link between learning, appropriately theorised, and being a proficient practitioner. Learning is a key part of practising at all stages. Zukas and Kilminster in this book provide an illuminating reconceptualisation of this professional learning trajectory through drawing on Thévenot's (2001) notion of pragmatic regimes of practice. It highlights the emphasis of most approaches to professional learning on public regimes of justification and regular action whilst ignoring the importance of regimes of familiarity, what Fenwick calls the 'work arounds' – how practitioners work around the difficulties of translating policies and protocols in local practice sites.

Beyond a focus on the individual practitioner, however, lie challenges to ideas of learning as being an individual or even solely a human endeavour. Theorisations of practice that attend to instances of practice as assemblages or orchestrations of embodied, material, technological and spatial-temporal phenomena brought together in concerted action construe learning as a distributed endeavour. It is to these ideas that the chapters of this book are devoted.

## Practice, Learning and Change

The five principles of practice outlined above – practice as knowledgeable action, as embodied and materially mediated doings and sayings, as relational, as evolved in historical and social contexts and power relations, and as emergent – challenge us to theorise learning, practice and change differently. Practice, learning and change are brought into a new and more complex relationship among the elements, each raising critical questions of how learning might be understood as patterned, embodied, networked and emergent.

### *Learning Practice(s)*

Before giving some consideration to the book title's three key concepts, we will briefly discuss the juxtaposition of two terms, learning and practice, which underpins the distinctiveness of this book. Of course, the collocation 'learning practice' is not new. It has a long history of diverse deployment by previous writers, particularly in the literature of education. A common theme that links many of the usages of the term is the reference to learning itself as a practice. This can take several forms. At a more abstract level, following Lave and Wenger's seminal work, 'learning practice' can be deployed to construe learning in general as a situated practice (see, e.g. Contu and Willmott 2003). More specifically, the term can refer to approaches to learning in particular disciplinary fields, such as mathematics (see, e.g. Ball and Bass 2000), or learning within particular levels of education, such as undergraduate level (see, e.g. Brew 2003). Even more specifically, the term 'learning practices' can be used to connote particular categories or kinds of learning such as critical thinking and memorisation (see, e.g. Vandermensbrugghe 2004) or 'deep' learning, drawing on the phenomenographic tradition (e.g. Marton 1994).

A somewhat different usage of the term 'learning practice' has been taken up by Billett and colleagues (e.g. Billett and Newman 2010) to call attention to practice-based modes of learning. Here, the focus is on 'learning through the practice of work'. The argument is that such learning has been, and remains, central in many human cultures, yet the increasing dominance of formal education arrangements has tended to lead to its importance being overlooked. Billett and Newman (2010) use the term 'learning practice' to refer to a model of lifelong professional learning in the particular context of the health care sector. As they argue, the term 'learning practice' compasses the 'duality between the contributions to learning provided by engaging in everyday work activities in professional workplace settings and how professionals elect to engage in and learn from these activities' (p. 52). Learning practices in this sense comprise both potential and outcomes of learning through engaging in professional practices. In this sense, the term is roughly synonymous with general notions of 'practice-based learning' – learning in, through and from practice.

What is common to all of these deployments of 'learning practice' is that practice itself tends to be taken for granted, whilst analytical attention is directed firmly on learning. This book, in contrast, by focusing on the ways that practice is theorised, offers fresh perspectives. For instance, many of the chapters in this book examine cases of work practices that can be in part linked to neoliberal reforms of the economy and work and to the emergence of a new identity of the worker-learner and subjectivity of active entrepreneurial subject. The emergence of the active entrepreneurial subject is evident in different contexts – through the rhetorical work and its activation of the aged care worker in Sweden (Chap. 11 by Fejes and Nicoll), in the child protection workers in Australia (Chap. 10 by Reich and Girdwood), the public sector managers in the case study of the South Australian Public Service (Chap. 9 by Davis), the new doctors in the UK (Chap. 13 by Zukas and Kilminster) and emergency health care practitioners in Australia (Chap. 7 by Manidis and Scheeres) and co-productive practices of child and family health nurses and parents (Chap. 17 by Lee, Dunston and Fowler). This worker-learner identity and active entrepreneurial subjectivity shifts learning practices to be entwined with the everyday work practices of all professionals.

## *Change*

Of the three terms brought together in this chapter, perhaps the least satisfactory, most overused and least theorised is change. Almost all of the theoretical work reviewed above, implicitly or explicitly, posits a theory of change, yet change itself as a concept remains problematic and elusive. Many accounts assume different understandings of change, and it would require a major project in itself to tease out this theoretical terrain. Here, we point briefly to some key points of difference that present promising implications for understanding and researching professional learning.

In literature on professional practice change – whether that be major restructure and reform of systems or more local instances of organisational change – the dominant theoretical frame has been until recently on change management. In his now-classic treatise on change, Kurt Lewin (1947) proposed a three-stage theory of change commonly referred to as unfreeze (readiness for change), change (understood as a process of transition) and freeze (establishing a new stability). Several generations of management theorists have refined this model, particularly in relation to the possibilities for stability and an end to change, though its logic, a predominantly linear logic, remains influential (see, e.g. in the context of health services organisational change research, Braithwaite 1995).

Theorisations of practice such as those explored briefly above, however, disrupt an easy linear logic and propose messier, more complex challenges for ideas about change. All theories of practice contain within them implicit or explicit theorisations of how practices emerge; how they are stabilised, maintained and sustained; and how they change. Furthermore, the relation between changes in professional practices and broader social change will not be linear or simple but a matter of

dynamic interconnections and interplay. A broad distinction can be drawn among the various practice theorisations sketched above. On the one hand are theories that emphasise the necessary and intimate relationship among practice, learning and change, such that all practice, occurring in specific times, spaces and circumstances, is emergent and thus involves change. Actor-network theories and those drawing on Deleuzian notions of 'becoming' make just this emphasis. Learning is thus almost equivalent to change in this sense, as it involves activity, movement and difference. Schatzki, on the other hand, explicitly eschews this conception of change. As he says:

> Activities happen. Happening, however, is not equivalent to change. To happen is to take place, to occur, to become part of the inventory of what is. The performance of an action does not necessitate any more change than that the stock of events in the world has increased by one. In particular, a performance need not implicate further changes in social facts, phenomena, or events; an activity can just as easily maintain the world as alter it. In fact, this is the usual case. This observation differentiates accounts that treat activity as event from those that treat it as process or becoming. According to the latter accounts, every event counts as change. To paraphrase Deleuze, to become is to become different. (Schatzki 2011: 4)

For Schatzki, social phenomena consist of 'bundles' of practices and material arrangements. Activity and events maintain or change these bundles 'in perpetuating or altering social practices, in appropriating or altering the arrangements linked to these practices, and in maintaining or changing the relations of practices to arrangements (and to one another)'. Further, bundles are held together 'not just by relations between practices and arrangements, but also by relations between practices and by relations between arrangements' (Schatzki 2011: 11). In this view, changes in social practices are fundamental to changes in social life more broadly.

Whilst Schatzki does not go on to address the dynamics of practice change directly in this work, researchers of professional practice have to grapple with this issue both theoretically and empirically. Kemmis (2009: 38), for example, argues that 'changing practices requires changing things frequently beyond the knowledge or control of individual practitioners, and frequently outside the individual practitioner's field of vision'. Understanding how practices change, as well as how they are stable and enduring, is a key issue in thinking through the relationship of practice to learning, as Reckwitz (2002: 255) elaborates:

> [r]outinized social practices occur in the sequence of time, in repetition; social order is thus basically social reproduction. For practice theory, then, the 'breaking' and 'shifting' of structures (generating the possibilities for change) must take place in everyday crises of routines, in constellations of interpretative interdeterminacy and of the inadequacy of knowledge with which the agent, carrying out a practice, is confronted in the face of a 'situation' (p. 255).

Earlier in this chapter, we presented a brief outline of types of theories of learning. It is interesting to consider the main characteristics of these types in relation to the idea of change. The cognitive-psychology-based theories tend to treat learning as one-off acquisitions of discrete items. This fits well with the idea of change as a challenging event to be dealt with and accommodated so that things can return to 'normal'. Sociocultural theories, by conceptualising learning as an ongoing process,

fit well with the idea that change is the norm rather than a temporary aberration. Post-Cartesian and sociomaterial theories emphasise emergence and unpredictability, thereby suggesting an even closer commingling of learning and change. This emphatic connection between learning and change, evidently implied by more recent learning theories, is also apparent in the five principles for theorising practice that were presented earlier in this chapter. The first principle, 'knowing-in-practice', suggests that professional knowledge is an ongoing changing process. The second principle regards practice as sociomaterial network in constant flux. The third principle stresses the relationality of practice in which at least some of the terms of the relations alter and change. The fourth principle emphasises the historicity of practices, whilst the fifth principle stresses that they emerge and evolve in ways that are not predictable. In sum, understandings of practice, learning and change have become inextricably entwined.

## Conclusion

There are important and exciting challenges in the ideas presented in this overview for theory and research into professional practice and learning. Of particular interest to those concerned with research into particular spheres of professional practice are questions such as how and why a practice is maintained and continues to be practised, how it changes and the role of learning in the emergence, maintenance and change in practices. As Gherardi (Chap. 14 this volume) notes, practices change by being practised; thus change is integral to practice. Beyond this assertion lie important conceptual questions about the scale, timeframe and consequence of particular conceptions of change. Questions of transition, transformation, reform, renewal and innovation all imply change, and learning is integral to each of these. The following chapters provide many stimulating opportunities for further reflection on the complex interconnections between practice, learning and change.

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# Part I
# Theorising Practice; Rethinking Professional Learning

# Chapter 2
# Theories of Practice and Their Connections with Learning: A Continuum of More and Less Inclusive Accounts

**Paul Hager**

## Introduction – Diverse Construals of Practice

Although the term 'practice' is being increasingly deployed in diverse writings in the social and behavioural sciences, there is no discernible agreement on the meaning and scope of this term. Green (2009: 2) suggests that the term 'practice' is 'inescapably contested, if not essentially contestable'. Yet, writers who employ this term frequently assume its meaning to be unproblematic. It is as Green observes 'a "stop word" *par excellence*' (2009: 2). Illustrating the diversity of meanings of the term 'practice', Antonacopoulou (2008: 114) points to five different conceptualisations: practice as action; practice as structure – language, symbols and tools; practice as activity system; practice as social context; and practice as knowing. Antonacopoulou views each of these accounts as partial, though she thinks that each addresses an important dimension of practice. Her aim is to develop a fuller account that includes these and other dimensions that she takes to be crucial to practice. Clearly, the wide and bewildering diversity of ways in which 'practice' is employed calls for a detailed analytical classification. Such a classification will not be attempted here. (For an exemplary proposed classification, see Kemmis 2008.) Instead, this chapter will discuss what I call 'more inclusive' and 'less inclusive' accounts of practice. These can be thought of as forming a continuum along which accounts of practice can be located. The different kinds of assumptions underlying more inclusive and less inclusive accounts will be examined, and the range of activities that each counts as a practice will be considered. Finally, the implications and connotations of more inclusive and less inclusive accounts for the notion of 'learning practice' will be discussed.

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The key point is that this chapter employs the notions of 'more inclusive' and 'less inclusive' accounts of practice to denote how strictly they demarcate what activities should count as practices.[1] The most inclusive accounts apply the term practice to seemingly anything that humans do, whereas the most exclusive (i.e. least inclusive) accounts reserve the term only for human activities that meet very specific and strict criteria. In between, along the continuum, we can locate accounts that are more or less prescriptive about what counts as a practice. The purpose of placing accounts of practice along a continuum is to demonstrate the changing connections between practices and learning across this continuum. Thus, the connotations of 'learning practice', a key concept underpinning this book, vary across diverse accounts of practice.

Of course, there is no question of correct or incorrect usages of the term 'practice'. This is evident from the variety of successful uses found in the literature. Clearly different usages of the term do different kinds of work, and authors will deploy the term in ways that seem most useful for their particular purposes. For instance, in Foucault's earlier work (e.g. 1979), fairly inclusive notions of practice are deployed to dismantle larger social science abstractions such as 'structure'. For Foucault, practices encompass technologies and techniques of social organisation and meaning, such as power, discursive formations and technologies of the self. By contrast, researchers interested in practices as *professional practices* (where 'professional' is thought of in the broad sense that most occupations can be carried out professionally) typically will use much more exclusive notions of practice. This is so because, for this latter group of researchers, something counts as a practice only if it meets a relatively complex set of criteria. (Various examples of these more exclusive criteria are discussed in the section following the next one.)

## More Inclusive Accounts of Practice

The literature abounds with deployments of the term 'practice' in apparently untheorised and taken-for-granted ways. Antonacopoulou (2008: 114) helpfully notes two main ways in which this occurs: 'a tendency to employ notions of practice to provide all encompassing descriptions of cultural characteristics on a macro level or specific activities on a micro level'. Both of these are examples of more inclusive accounts of practice. Thus, more inclusive accounts of practice occur at both macro and micro levels of description.

At the macro level, more inclusive accounts of practice typically employ a generic term that supposedly names a practice, but closer inspection shows that the supposed name of a practice is actually a collective term for a whole host of disparate activities, which themselves may or may not be practices. Such usage of the term 'practice' is very inclusive, but it raises the question of whether calling all-encompassing descriptions of cultural characteristics 'practices' is likely to be either particularly explanatory or enlightening. However, it is easy to slip into employing the term 'practice' in this taken-for-granted macro way. Even MacIntyre, one of the foremost contributors to practice theory, has not been immune from this lapse. For instance,

he nominates construction as a typical practice. But the wide diversity of human constructions, for example, roads, bridges, domestic housing, cathedrals and boats, negates the idea that construction is a single practice. Rather, construction is more plausibly regarded as a blanket term for a multitude of very different practices. Certainly, MacIntyre's own detailed account of the nature of a practice requires that road building, boat building and cathedral building, for example, are all separate practices (see Hager 2011: 550–552).

Turning to the micro level, the term 'practice' is used even more inclusively when it is applied indiscriminately to human behaviours, activities or, even, actions. As Green (2009: 7) observes, such usage equates practice with 'just any kind of natural or material activity, ….what might be deemed "brute" activity'. The obvious criticism is that this kind of atheoretical and profligate usage threatens to drain the term of any explanatory purchase.

However, no serious practice theorist, at least in their considered moments, would resort to these illimitably inclusive senses of practice, either at the macro or the micro level. Rather, practice theorists, even at their most inclusive, require that for behaviours, activities or actions to count as practices, they need to exhibit certain minimal features. Typical examples of such basic features are that practices need to be intentional, or that they need to be rule-governed routines. Polkinghorne (2004), for example, regards intentional activity directed to achieving a goal as the mark of a practice. However, since most human behaviours, activities or actions are intentional, this feature on its own still leaves the field of practices very large. A more restricted, but still a fairly inclusive, proposal is that practices are rule-governed routines. On this account, performance of a practice requires the performer to act in accordance with the various constitutive rules that taken together constitute that practice. It is accepted that constitutive rules are often tacit (Searle 1995). This understanding of practice has been significantly influential, not least because of its close connections with popular readings of Foucault's ground-breaking work on power and governmentality.

In the writings of Foucault (e.g. 1991) and of his followers (e.g. Dean 2010), power is located in 'regimes of practices'. This key idea of regimes of practices is fleshed out and elaborated via notions such as imposed rules, taken-for-granted routines and rituals, and institutionalised regularities. So, routines and customs play vital roles as basic mechanisms of governance and self-governance in the work of Foucault and his followers. This work is thereby strongly tied in with the relatively inclusive understanding of practices as rule-governed routines.

Even more inclusive deployment of 'practice' and 'practices' is evident in some writers strongly influenced by Foucault. For instance, in Usher and Edwards (2007), these terms occur ubiquitously throughout the book, at a bewildering multiplicity of levels of description. At various points, we meet truth-telling practices, meaning-making practices, confessional practices, discursive practices, vocational practices, homemaking practices, learning practices, lifelong learning practices, educational practices, assessment practices, disciplinary practices, pedagogical practices, social practices, cultural practices, political practices, lifestyle practices, signifying practices and interpretive practices. Yet, Usher and Edwards never discuss what they understand by these key notions of 'practice' and 'practices'.

Their significance is simply taken for granted. This situation probably reflects the term practice being installed as a corrective to an overemphasis on structure as an explanatory concept in earlier social and political theorising.

Whilst all of the practices referred to by Usher and Edwards are undoubtedly social in some relevant sense, many of their examples of supposed practices appear to be generic terms for collections of practices or, possibly, activities that themselves may be better not described as practices. Consider, for example, homemaking practices, learning practices, political practices and lifestyle practices. Each of these covers such a very broad and diverse range of activities that, even if we acknowledge all of them as being practices, some will accord with more exclusive criteria than do others. Likewise, some are more obviously characterised by constitutive rules or standard operating procedures than are others. Actually, the four putative examples of practices just listed are too broad and generic for us to decide whether or not they are characterised by specific constitutive rules or standard operating procedures. The problem is that they simply name broad collections of activities. In order to look for evidence of constitutive rules or standard operating procedures, it is necessary to identify some of the specific instances that fall under these generic labels, such as cleaning (a homemaking practice) or presenting seminars (a learning practice). But even these, it might be argued, are too broad and vague. There is such diversity and wide possibility in how either of these activities might be carried out successfully that it might be unhelpful to claim that either activity is a practice as such. Indeed, very few of the generic activities listed by Usher and Edwards have any plausible claim to be governed by constitutive rules or standard operating procedures. Exceptions might be truth-telling practices and confessional practices, but even here they would appear to need to be broken down into more specific activities. Overall, then, Foucault's work and its widespread influence have resulted in 'practice' and 'practices' being used extensively in very inclusive ways.

Whilst the idea of practices as rule-governed routines has undeniably proved to be an important and influential account, other practice theorists take a more exclusive view. They maintain that there is a lot more to a practice than routine rule following. Antonacopoulou (2008: 116) typifies this view that practices in general 'are not simply a set of standard operating procedures that are reproduced by obeying a particular set of rules'. Thus, as we will find, invariant following of rules is *not* a feature of more exclusive cases of practices. The more exclusive accounts of practices, discussed in the next section, all agree that routinised activities are too thin to be numbered amongst practices, if only because proficient practitioners need to be able to adapt and interpret the rules to fit the given circumstances. Of course, the differences between these more exclusive accounts of practice lie in the varying accounts they give of the criteria that constitute a practice.

But before turning to more exclusive accounts of practices, there is still another kind of more inclusive proposal to be considered. It is a still richer understanding of practice, though one that is still relatively inclusive as the term is being employed here. It draws attention to the *interconnectedness* of the various components that are

parts of a practice. These include items such as actions and activities, both mental and physical, as well as non-human objects that might be involved in the practice. For example, Reckwitz (2002: 249) characterises practice as:

> ….. the whole of human action …. a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understandings, know-how, states of emotion and motivational knowledge.

Reckwitz adds (2002: 250) that:

> A practice …. forms so to speak a 'block' whose existence necessarily depends on the existence and specific interconnectedness of these elements.

There are various features of the Reckwitz account that place it towards the more inclusive end of the continuum. First, in contrast to more exclusive accounts, it inflates the role of routine in practices. Second, as Antonacopoulou (2008: 116) argues, it is insufficient in itself to merely recognise the interconnectedness of the various components of practice. Rather, she maintains, useful theorisations will say something about the nature of the interconnections, thereby, for example, enabling them to be investigated empirically. Third, the Reckwitz account downplays the discursive aspects of practice. All of these matters are dealt with in accounts of practice located towards the more exclusive end of the continuum. We now turn to these.

## More Exclusive Accounts of Practice

Accounts of practice at the more exclusive parts of the continuum characteristically require activities to meet much more stringent criteria if they are to count as a practice. Given that the 'practice turn' (Schatzki 2001) encompasses diverse disciplines such as sociology, philosophy, history, anthropology, education, cultural theory and science and technology studies, it is only to be expected that writers providing more exclusive accounts are many and diverse. For example, notable contributors from sociology include Bourdieu (1977, 1990); Giddens (1984). Significant contributions from philosophy include Hubert Dreyfus (Dreyfus and Dreyfus 1986; Dreyfus 2001) (inspired significantly by Heidegger), MacIntyre (1981, 1990, 1994, 1999) (strongly influenced by Aristotle) and Schatzki (1996, 2002, 2005, 2006) (strongly influenced by Wittgenstein). The sheer number of significant contributors to more exclusive accounts of practice means that only a few can be discussed here. These have been chosen to reflect the wide diversity of characteristics that have been proposed as marks of a practice. In some cases, they are authors who have attempted to synthesise the main features of the diversity of writings that contribute to more exclusive accounts of practices. The writers chosen here to illustrate key features of more exclusive accounts of practice are Schatzki, MacIntyre, Kemmis, Green and Antonacopoulou.[2]

## *Schatzki's Account*

Schatzki's work is a good starting point for this section because he offers a wide-ranging account that encompasses both more inclusive and more exclusive cases of practices. For Schatzki, practices are the 'site of the social', where:

> …. the social is a field of embodied, materially interwoven practices centrally organized around shared practical understandings. (Schatzki 2001: 3)

Thus, the social is a complex mesh of practices, a practice being a:

> nexus of doings and sayings [that are] spatially dispersed and temporally unfolding (Schatzki 1996: 89).

Schatzki expands further on this understanding of practices, defining them as 'structured spatio-temporal manifolds of action … that have two basic components: action and structure' (Schatzki 2006: 1863–1864).

Schatzki locates diverse items within the category of structure. They include:

- Know-how (performance of the actions and activities involved in practice)
- Rules (instructions and maxims that guide or specify performance)
- Teleo-affective structuring (the purposes, goals and emotions that underpin and direct performance of the practice)
- General understandings (information relevant to the performance in a particular job or case)

Practices comprise an integration of action and structure. These structural elements are embedded in the performances of a practice, that is, the actions of practitioners. Schatzki points out the interrelatedness of the various material and non-material aspects of practices, which include artefacts, people, technologies and spaces (Schatzki 2006: 1864).

As well, he underlines the interrelatedness of practices with other practices. This concern with the totality of practices leads his theorising to encompass both more inclusive and more exclusive cases of practices. In particular, Schatzki distinguishes 'dispersed practices' from 'integrative practices'. Integrative practices are 'the more complex practices found in and constitutive of particular domains of social life' (Schatzki 1996: 98). His examples include cooking, farming and business. In contrast, dispersed practices recur in and across multiple domains and sectors of social life. They include 'describing ….explaining, questioning, reporting, examining and imagining' (Schatzki 1996: 91). In general, according to Schatzki, dispersed practices are much less complex than integrative practices. It follows from Schatzki's particular characterisations of these two kinds of practices that dispersed practices are located towards the more inclusive end of the continuum and integrative practices lie towards the more exclusive end. However, it should be noted that precise locations on the continuum will depend on details of particular cases. For instance, what counts as describing or explaining will vary significantly with the nature of the particular context. However, it is clear that, for Schatzki, integrative practices are significantly more complex, that is, there will be a lot more to be said about each of

the four components of their structure. It is this complexity that aligns Schatzki's integrative practices with the more exclusive accounts of practices considered in the rest of this section.

## *MacIntyre's Account*

MacIntyre's well-known definition of a practice in *After Virtue* is that it is:

> ….. any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realised in the course of trying to achieve those standards of excellence which are appropriate to, and partly definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended. (1981: 175)

MacIntyre (1981: 176) defines *internal goods* as those goods that can only be had by engagement in the particular practice. He views these goods as being internal in two senses. First, they can only be specified in terms of the particular practice, and, second, they can only be identified and recognised by the experience of participating in this practice. This means that those 'who lack the relevant experience' of the practice 'are incompetent thereby as judges of internal goods' (1981: 176). Consider fishing (one of MacIntyre's examples of a practice). Internal goods of the practice of fishing include the knacks, feels and know-how unique to fishing that can only be experienced and appreciated by participants in the practice. Another internal good is the desire to excel at fishing, which encourages healthy competition within the practice, thereby benefitting the practice itself. Further internal goods of fishing include avoidance of overfishing and the nurturing and sustaining of future replacement fish stocks.

According to MacIntyre, the external goods achieved by a particular practice differ from internal goods in that they can be obtained in other ways – '… their achievement is never to be had *only* by engaging in some particular kind of practice' (1981: 176). There are further important differences between the two kinds of goods. Achieving internal goods 'is a good for the whole community who participate in the practice', whereas external goods 'when achieved …. are always some individual's property and possession' (1981: 178). Both types of goods involve competition: competition to excel in the case of internal goods and competition for resources typically involving winners and losers in the case of external goods. Repeatedly, MacIntyre cites prestige, status and money as typical examples of external goods. This is misleading, since it conveys the impression that external goods are morally dubious. Yet MacIntyre's theory actually entails the conclusion that most external goods are morally neutral (see Hager 2011). This is evident when we consider that the main external good for the practice of fishing is food. It clearly meets the stated criteria for external goods. First, food can be obtained other than through the practice of fishing; second, because the catch is someone's property; and third, fish as food is part of a wider competition for resources.

MacIntyre's key notions of internal and external goods throw useful light on the interconnectedness of the components of a practice, as later discussion will show (see also Hager and Halliday 2006: Chap. 7).

## *Kemmis' Synoptic Overview*

Kemmis (2008) offers a synoptic view of theorisations of practice. Following a detailed outline of different traditions and approaches to studying practice, Kemmis develops a complex framework or grid to represent the many features that have been attributed to practice. Kemmis maintains that the many traditions and approaches can each contribute important principles and insights for understanding practice, with none in themselves providing a complete account (see also Kemmis 2005). From this framework, Kemmis distils seven 'key individual and extra-individual features of practice'. It is these that are of particular interest here.

Before turning to these, however, it may be useful to comment briefly on the relationship between Kemmis' work and the more inclusive/more exclusive terminology employed in this chapter. Kemmis is keen to consider the plurality of theories about practice as he argues that any one of them is likely to focus on some aspects of practice whilst ignoring others. Thus, Kemmis can be read as maintaining that all theories of practice are inherently inclusive, though, obviously, he believes that some are more inclusive than others. However, whether a theory is more inclusive or more exclusive in relation to the sheer numbers of features of practice that it accounts for is *not* the way these terms are being used in this chapter. Here, more exclusive accounts are those that set more stringent criteria that an activity must meet to be counted as a practice. The most inclusive accounts allow virtually all activities to count as practices. As well, Kemmis distinguishes the narrower term 'professional practice' from the wider scope of 'social practice'. Once again, this distinction is not the same as this chapter's more inclusive/more exclusive categorisation, since both 'professional practice' and 'social practice' can have more inclusive or more exclusive usages.

The seven 'key individual and extra-individual features of practice' identified by Kemmis are:

I. Intention and meaning
   These capture the idea that practices are richer than actions. Intentions of practices are closely connected to the meanings that various participants attach to situations. These will each reflect their own particular cultural and discursive resources.
II. Structure
   Practitioners come into practices that are preformed. Practices have their own particular 'shapes', which may differ between participants, for example, nurse and patient or teacher and student. At the extra-individual level, practices are pre-structured and prefigured in discourses, social relationships and material-economic arrangements.
III. Situatedness (contextuality)
   Practice is situated in that practitioners need to deliver an integrated performance that answers the needs of *this* particular client, in *this* particular setting, under

*this* particular set of circumstances. At the extra-individual level, the practice is located in a particular context that has cultural, discursive, social, material and economic dimensions.

IV. Temporality
Practices are performed through and over time. At the individual level, they take place at particular times in peoples' lives, times that are part of their overall life narrative. At the extra-individual cultural-discursive dimension, practices themselves evolve over time, as does the composition of the community involved in the practice.

V. Systemic roles
At the level of individuals, practices feature relationships between participants who occupy differing roles, such as nurse and patient or teacher and student. At the extra-individual level, these roles are discursively framed and interpreted in traditions and theories that are internal field of practice.

VI. Reflexivity and transformation
Practice is reflexive in that practitioners can observe their own performance as they practise and modify their performance either then or in the future as they deem it desirable to do so. Such reflexivity serves to transform the practice itself, as well as aspects of the identity of the practitioner. On the extra-individual level, such reflexivity can transform the cultural-discursive dimensions that give the practice meaning and significance.

VII. Forms of reasoning
Different perspectives favour different forms of reasoning leading to practices differing in their kinds of aims, the kinds of dispositions exhibited by practitioners and the kinds of actions that characterise the particular practice. For example, with regard to the aim of a practice, a theoretical perspective favours attaining knowledge or truth; a technical perspective favours production of some entity; a practical perspective favours wise and prudent judgement and action; and a critical-emancipatory perspective favours overcoming irrationality, injustice or suffering.

Taken together, these seven features, combining individual and extra-individual components, represent quite an exclusive account of practices.

## *Green's Synthetic Overview*

A somewhat different, but still wide-ranging, review of theorisations of practice is provided by Green (2009). His particular focus is on *professional* practice. Green notes that there are two distinct but interrelated 'meta-traditions' that underpin theorisations of practice. These are the neo-Aristotelian tradition, which emphasises the integrity of authentic practices, and the post-Cartesian tradition of poststructuralism or postmodernism, which problematises subjectivity and related issues such as mind, consciousness and knowledge. MacIntyre's characterisation of practices via internal and external goods is a notable example of the neo-Aristotelian meta-tradition. 'Practices as the constitutors of subjectivity' is the defining principle of the post-Cartesian tradition.

Green argues that the principles of both of these meta-traditions are needed for an adequate understanding of professional practice. He goes on to suggest that the complex concept 'practice' is usefully thought of in terms of three 'distinct but interrelated categories': activity, experience and context (2009: 7). Green argues that to be part of a practice activity needs to be more than 'brute' activity, for example, being goal directed. But even then, he concludes, it is not itself sufficient to constitute a practice. Green then turns to the inescapable experiential aspects of practice. These incorporate several dimensions. One is that practice typically requires the practitioner to *interpret* what is happening and to assess its significance. As well, practice is something that is lived through, anticipated and recalled later. This involves consciousness in many forms, including sensory awareness, cognition, emotions and affects. The third category, context, is widely recognised but also widely misunderstood according to Green. Context should not be thought of as a container for practice or backdrop against which it takes place. Rather:

> …. 'context' needs to be thought of as *part of practice*, as inscribed in it, as part of its larger and more adequate conceptualisation. Yet 'context' also needs to be problematized. It cannot simply be taken for granted or assumed. …. it must be used with caution, and always under erasure, as it were. This is because the distinction between 'context' and 'text' …. is blurred, indistinct, shifting. (Green 2009: 9)

The complexities surrounding these three related concepts serve to highlight the difficulties involved in developing a rich understanding of practice. But, as Green points out, there are even more issues to be taken into account. These cluster around the related aspects of knowledge, judgement and decision-making that inevitably arise in any account of professional practice that aims to be comprehensive. Here, Green employs the ancient Greek concepts of *phronesis*, *praxis* and *aporia*, arguing that each of these is equally important and necessary for an adequate grasp of professional practice. *Phronesis* concerns practitioners' capacities to employ practical rationality (not technical rationality) to make appropriate, concrete, context-sensitive judgements. *Praxis* relates to practitioners acting in ways that further the goods of the practice. This highlights the moral dimension of professional practice reflected in committed engagement in the practice. *Aporia* concerns the reality that practitioners inevitably encounter situations of uncertainty, moments when they need to act, even if it is unclear which is the best course of action. Thus, it reflects the inescapable defeasibility of some professional judgement.

Overall, Green has provided a very useful framework for approaching the complexities of more exclusive accounts of practice.

## *Antonacopoulou's Overview*

The main focus of Antonacopoulou's article is to rethink 'the current dominant logic and approach that governs research on practice in management and organization studies' (2008: 112). Her procedure is to survey and critique previous writers in

order to identify deficiencies in present understandings of the complexity of practice, thereby enabling her to propose remedies for these deficiencies. Inevitably, her survey includes issues that have already been raised in this section (e.g. the dynamic character of practice, its integrity, its intentionality, its reflexivity). However, she also discusses some important issues not considered so far in any detail in this section. As already noted, Antonacopoulou maintains that it is not sufficient to merely recognise the interconnectedness of the various components of practice. Rather, useful theorisations will need to elucidate the nature of the interconnections. Her proposal to achieve this draws attention to three important features of practices: their embodiment, the role of internal and external goods and the connections between the intensity, integrity and intentionality underpinning practice. Using these features, Antonacopoulou develops a dynamic account of practice as self-organising and emergent in which the notion of 'tensions' is central. Her proposal draws on complexity theory and Deweyan transactional relations (matters taken up in this book in the Lancaster Chap. 8).

## Implications of the Various Construals of Practice for Understanding the Relationship Between Learning and Practice

As the earlier discussion showed, the more inclusive accounts' characterisations of practices viewed them as ranging from relatively simple items, such as discrete human behaviours or, even, actions, through to more complex activities such as rule-governed routines. In contrast, the more exclusive accounts viewed practices as complex holistic activities, ones that integrated diverse items such as goods and virtues, activity, experience, context and judgement, with such integration often involving a significant temporal dimension. Thus, prima facie, in terms of theories of learning, we might expect the learning of more inclusive practices to entail relatively simple, one-off learning events. These invoke theories in which the learning is readily viewed as a self-contained product (for detailed discussion, see Hager 2005). By contrast, the learning of more exclusive practices, involving changing contexts and variable circumstances, draws more naturally on those theories that view learning as an ongoing process (Hager 2005). These broad trends can be appreciated better by considering some specific examples.

### *The Role of Learning in More Inclusive Accounts of Practice*

As shown above, the most inclusive accounts view disparate activities of all kinds, both generic and specific, as practices. It was argued that the 'generic' category needs to be elucidated in terms of more specific activities. Take, for instance, lifestyle practices (Usher and Edwards 2007). When specified more finely, these

practices are a mixed bag. They include things that can be picked up as a habit or by merely following a fashion, but they might also include items that require more sophisticated learning. As discussed above, the 'specific' category encompasses 'brute' activity or actions. Training and imitating role models are the kinds of learning commonly implied by such activities. These are still relatively simple kinds of learning. Similar considerations apply to the somewhat less inclusive accounts of practice that view it as a set of standard operating procedures that are reproduced by obeying a particular set of rules, or even to the Reckwitz notion of practice as a routinised type of behaviour which consists of several elements, interconnected to one another. Here, the training and modelling might be more sophisticated and of greater duration and intensity, but the emphasis is still on reproduction and routine.

Crucially, by centring on relatively self-contained kinds of learning, such as training or imitating, more inclusive accounts imply a relatively loose connection between learning and practice. The activity is first learnt (for instance, in a training institution) then afterwards practised in a real practice situation. The two are viewed as temporally separable, particularly at the more inclusive end of the continuum. As will become evident, this temporal separation of learning and practice is rejected by more exclusive accounts of practice.

## *The Role of Learning in More Exclusive Accounts of Practice*

Drawing upon, and in some cases expanding on, the preceding discussion of more exclusive accounts of practice, several key features will be considered in turn for the light they throw on the connections between practice and learning. Some of these have already been discussed sufficiently, whilst others call for a little more detail in order to demonstrate the intimate connections between practice and learning.

1. Practice as more than invariant rule following
   Practices typically have a strong normative dimension, that is, features that an activity must have in order to count as an instance of that particular practice. However, normativity is a much richer notion than mere rule following or rigid adherence to standard procedures. As Winch (2010: 81) notes:

   > …. in many if not most cases, the normative structure of an activity is not disclosed explicitly or discursively through the promulgation of *rules* but implicitly and sometimes non-discursively through observation of the patterning of the activity itself and of the normative activities that underpin it.

   In any case, once practices reach a moderate level of complexity, rule following is certainly not mechanical. Taylor (1995: 177ff.) draws attention to the 'suspense and uncertainty' of practices. He attributes this to:

   (1) 'The asymmetrical time of action', which refers to the common need to act irreversibly in a situation of uncertainty
   (2) The fact that rules do not apply themselves but require finely tuned judgement to work out what they mean in the given particular situation

(3) The way in which practice requires 'continual interpretation and reinterpretation of what the rule really means'

These points resonate with the earlier outline of more exclusive accounts of practice, for example, Green's emphasis on practitioners needing to interpret practice situations and reach appropriate judgements (*phronesis*, *aporia*) and Kemmis' foregrounding of the situatedness of practice. These features of the normativity of practice, requiring continual interpretation and reinterpretation on the part of practitioners, suggest that ongoing learning is an essential part of good practice.

2. Interconnectedness of components of practice
As noted above, Antonacopoulou asserted that it is not sufficient to proclaim the interconnectedness of the various components of a practice – the point is to explicate this interconnectedness. She nominated MacIntyre's internal and external goods as a vehicle to achieve this.
Higgins (2003, 2010) analysed MacIntyre's account of *internal goods* in order to show the diversity within this category. He identified at least four types of internal goods in MacIntyre's account of practices (Higgins 2003: 287–289) as follows:

- Outstanding work or performance (which the practitioner *appreciates*)
- What it is like to be engaged in the practice (which the practitioner *experiences* as good)
- An excellence of character (which the practitioner *displays*)
- A 'biographical genre' – what it means to live as a practitioner (which *shapes* the practitioner's life)

Note that, of these four items, the first is realised in the work or performance, whilst the other three are realised in the practitioner. So, internal goods connect features of the practitioner with features of the work itself. As well, internal goods and external goods are not as disparate as a first reading of MacIntyre's work might suggest. In fact, external and internal goods can be very closely interconnected (see Hager 2011 for detailed discussion). From an external goods perspective, the Sydney Opera House is an impressive arts complex owned by the state of NSW. But, simultaneously, it is a building that exemplifies the internal goods of the many practices that went into constructing it. In MacIntyrean terminology, it might be said that the Sydney Opera House exhibits the virtues of the workers who constructed it. Hence, one and the same entity exhibits both internal and external goods simultaneously.
Higgins' fourfold classification of internal goods also serves to reinforce the conclusion that ongoing learning is an essential part of good practice. Of his four types of internal goods, the development of the first, second and fourth ones all require a process of learning from the experience of actual practice. The third might also be enhanced from experience of practice.
Altogether MacIntyre's internal/external goods analysis serves to reveal the complexity of practice. This suggests that rich understandings of practice will require various and multiple levels of explanation. It may be that the kinds of explanations that are relevant to understanding practice will differ according to

the different aspects of the practice that we are interested in. Perhaps the same applies to learning.

These points, the interconnectedness and multilayer features of practices, resonate with themes from the earlier outline of more exclusive accounts of practice. For instance, Green's emphasis on the integrity of authentic practices sits well with the Higgins' analysis of MacIntyre's internal goods. Likewise, Green's observation that practices are experienced and lived through accords with this analysis. Kemmis' individual and extra-individual levels of analysis of practices illustrate the idea that practices can be understood at multiple levels of explanation.

3. Meaning making – construction of self – reflexivity and transformation – temporality and change – context

   This is a cluster of interrelated aspects of practice that at any given time can be thought of as being in an ongoing unstable equilibrium, such that alterations in any one of these will likely interact with and influence alterations in one or more of the others. In most cases, these alterations will accompany learning on the part of the practitioner. Thus, small changes in particular aspects of a practice generate learning by practitioners. This idea, both suggestive and powerful, accords with various features of the more exclusive accounts outlined above, for example, it has diverse links with Kemmis' seven key features of practice, particularly temporality, and reflexivity and transformation. Likewise, Green's interrelated categories of activity, experience and context are implicated here as are his trio of *phronesis*, *praxis* and *aporia*. The dynamic nature of practice requires that practitioners learn in an ongoing way from their practice.

4. Emergence

   Only recently has the notion of emergence become prominent in humanities and social sciences theorising. Bhaskar's 'critical realism', for example, holds that social reality is dependent on human activity (see Archer 1998). As well, Bhaskar maintains that some social structures have emergent properties, properties that cannot be known in advance. Yet, these emergent properties have causal powers and persist, even beyond the lifetimes of the people who originally brought about their emergence. Social structures exhibiting emergent properties have an ongoing temporal dimension because human interactions with them continually reproduce and transform them. For Bhaskar, 'society may…. be conceived as an articulated ensemble of such relatively independent and enduring structures' (Archer 1998: 368). If social structures,[3] such as human practices, can have emergent properties, what about the learning by practitioners that accompanies the transformation of such practices? It seems likely that such learning would also be significantly emergent. This takes us well beyond the scope of traditional theories of learning.

   Recently, theories of learning have been influenced by complexity theory. This approach suggests that learning should be regarded as a growing capacity to act in flexible, constructive and innovative ways suited to the demands of ever-changing circumstances. Here, the crucial point is that such learning is emergent in the strong sense that it grows out of continuous and non-linear interactions, with properties not predictable from a knowledge of preceding structures.

Thus, more exclusive accounts of practice take us into the field of emergence and complexity theory, where practice is viewed as a complex web. Perhaps learning should also be viewed as a complex web. These developments mesh with Antonacopoulou's more exclusive understanding of practice.

## Conclusion

Overall, then, more exclusive accounts of practice imply that learning is an essential (necessary) part of the practice and its ongoing healthy maintenance. Such strong links between learning and practice start to dissipate as we move into more inclusive accounts of practice. Is learning itself a practice? Probably not if we adopt a more exclusive understanding of practice. For example, the internal goods of learning probably reside with what is learnt, rather than with the act of learning itself.

It may be going too far to claim that in all cases to engage in a practice is to learn, but, as the preceding discussion has suggested, there is a good case for maintaining that to practise well is to learn.

## Endnotes

1. This distinction between inclusive and exclusive accounts of practice has no intended links to Bernstein's famous scale of strong and weak classification of curriculum knowledge and pedagogic discourse (see, e.g. Bernstein 1990, 2000). As used in this chapter, 'inclusive' and 'exclusive' relate to *criteria* for designating a practice. Elucidation of the relation of such criteria to Bernstein's work is outside of the scope of this chapter.
2. It may be that, in general, as the practice turn has encouraged researchers to become more interested in theorising the nature of practices, there has developed a tendency towards more exclusive accounts. However, this trend should not be overstated, since, as already discussed, Reckwitz, for example, is a significant part of the practice turn and his account is more inclusive.
3. The practice turn is sometimes presented as problematising the structure/agency binary. One way of doing so is to develop theories in which both structure and agency play significant but complementary roles. This is so for the Bhaskar/Archer work discussed here. It also applies, for example, to the Kemmis' synoptic overview outlined above.

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# Chapter 3
# Ecologies of Practices

**Stephen Kemmis, Christine Edwards-Groves, Jane Wilkinson, and Ian Hardy**

In this chapter, we explore the idea that practices can be understood as living things, and that they are interdependent with other practices to which they are connected in 'ecologies of practices'. Others like Gherardi (2009) have also discussed practice theory taking an explicitly relational and ecological perspective, although perhaps without much elaboration of what taking an 'ecological' perspective entails. Viewing practices as living entities may challenge ways of understanding 'learning practices'. We draw on findings from a current project involving a cluster of schools in rural Australia in which we are investigating how practices of educational leadership, professional development, teaching and student learning connect with one another, each influencing and being influenced by the others.

## Developing a Theory of Ecologies of Practices

W.B. Yeats (1928) asked, 'How shall we know the dancer from the dance?' In this chapter, we ask a similar but more general question: 'how shall we know the practitioner from the practice?' Do practices have an existence that is in some way distinct from the person(s) performing them? Are they entities of a kind that people can

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'step into', in the way a dancer can step into a dance? How might we conceptualise practices as forms or arrangements that come into existence when people step into them and begin to enact them, perhaps with variations? Like practice theorist Theodore Schatzki (1996, 2001, 2002, 2010), we are exploring how practices exist as orchestrated arrangements – in particular, cultural-discursive, material-economic and social-political arrangements, all held together in the different kinds of projects people pursue in their practising. In our view, these clusters of arrangements prefigure the social world for those who come to inhabit a practice of a particular kind. In this chapter, we want to show how practices have a kind of existence – a life – beyond the lives of those who practice them, and beyond the apparent transitoriness of the utterances, activities and social connections that people say and do and make when they engage in practices.

If we think of the general 'dance' of teaching, for example, or of the much more particular 'dance' of teaching children about the elements of prose used to entertain and engage readers, then each is a 'dance' of a particular kind. Looking at practices as 'dances' in another way, one might see connections between the particular (teacher) 'dance' of preparing lessons, for example, and the (teacher and student) 'dance' of accomplishing a lesson. In such relationships between practices, one practice produces outcomes or products that are taken up in other practices. If these are relationships of interdependency between the practices concerned, then it seems possible to conceptualise the practices as *ecologically* connected with one another, or as connected with one another in 'ecologies of practices'.

Practices are shaped not solely by the intentional action and practice knowledge of participants but also by circumstances and conditions that are '*external*' to them – by always already pre-existing cultural-discursive, material-economic and social-political arrangements (Kemmis and Grootenboer 2008) that give form and substance to a practice and, indeed, make it possible to practise a practice. These kinds of circumstances and conditions include, first, *practice architectures* that prefigure (Schatzki 2002) the sayings, doings and relatings that hang together in the project that gives the practice meaning and coherence, and, second, *ecologies of practices* in which different kinds of projects and different kinds of subsidiary practices connect up with one another in ecological relationships that sustain a complex of practices as a whole – a complex like the diverse and interrelated practices that constitute the complex of education in schools, for example.

We begin by describing the notion of practice architectures, then give our own definition of practices. These give us a basis to explore the notion of ecologies of practices. One of our chief claims, following insights of Fritjof Capra (1997, 2004, 2005) about living systems, is that practices are living entities and that they coexist in ecologies of practices that are living systems.

To give empirical grounding for our discussion of these concepts, we use examples of the interconnected practices of leadership, professional development, teaching and being a student that we have observed in research we are currently undertaking in a small number of schools in rural Australia.

## *Practice Architectures*

In our overall research programme, we are developing a theory of practice as embedded in '*practice architectures*' (Kemmis and Grootenboer 2008). These are the cultural-discursive, material-economic and social-political orders and arrangements that prefigure and shape the content and conduct of a practice, shaping the distinctive 'sayings', 'doings' and 'relatings' that occur in a particular kind of practice. These practice architectures give practices like education:

- Their *meaning* and *comprehensibility*, in terms of the 'sayings' and 'thinkings' that occur in a practice in its cultural-discursive dimension, as it is constituted *in semantic space*, and in the medium of language
- Their *productiveness*, in terms of the 'doings' that occur in a practice in its material-economic dimension, as it is constituted *in physical space-time*, and in the medium of work or activity
- The kinds of *connectedness* and *solidarity* among the people and objects involved in a practice, in terms of the 'relatings' that occur in a practice in its social-political dimension, as it is constituted *in social space*, and in the medium of power

Practices are always *situated* in time and space, and unfold in *site ontologies* (Schatzki 2005). They are not merely set in, but always already shaped by, the particular historically given conditions that exist in particular localities or sites at particular moments. Specifically, practices are always constituted in and through the particular cultural-discursive, material-economic and social-political conditions that exist in the site.

Schatzki (1996) explored the intuition that practices are a kind of concrete embodiment of Wittgensteinian (1974, 1975) language-games and forms of life – that is, the notion that the 'sayings' and 'doings' and 'relatings' (Kemmis and Grootenboer 2008) that constitute practices function together in social life in the way words and ideas hang together in language-games in different kinds of discourses. Schatzki (1996, 2001, 2002) describes practices as composed of *doings* and *sayings* (to which we add *relatings*) that 'hang together' in a characteristic way in 'teleoaffective structures' that give a sense of purpose (the 'teleo' element) to practices as projects of a particular kind and that shape participants' commitments (the 'affective' element) to achieving this particular kind of purpose.

We add 'relatings' to Schatzki's sayings and doings because both doings and sayings necessarily imply relationships between persons and between persons and other objects. We want to make it more explicit that practices *are* practices because they involve characteristic relationships of 'orchestration' between people *and* between people and objects. In using the term 'relatings', we are referring to practices as social by nature, indeed, as *the site of the social* (as Schatzki 2002, describes it), and we mean to invoke the notion of *Zusammenhang* or 'hanging together' (Schatzki 1996: 12–13, 171; Wittgenstein 1975) by which human beings and human lives coexist in 'the social' and 'sociality'. By adding 'relatings', we indicate that practices are located both in human coexistence and in people's coexistence with the natural and physical world. We think that this social dimension is part of what constitutes both a practice as a whole and the *project* of a practice (for Schatzki, its teleoaffective structure).

For Schatzki, ‘projects’ are one element of teleoaffective structures, along with ‘ends’ and ‘tasks’. In this discussion, we subsume ‘ends’ and ‘tasks’ within the category ‘projects’ and take the view that it is its character as a *project* that gives a practice its distinctiveness (whether a large project like ‘getting an education’ or a small project like ‘getting to school’). The notion of ‘projects’ (and ends and tasks) in Schatzki’s definition of practice does similar work to the notion of ‘internal goods’ in Alasdair MacIntyre’s (1981: 175) famous definition of a practice, namely, indicating what can only be achieved by the conduct of a particular practice. The concept of ‘projects’ has an additional advantage, however: it points to the coherence of activities at many more levels than the very general level of human activity (like medicine or history or chess) to which MacIntyre’s definition restricts ‘practices’. In the light of these preliminary remarks, and following the beginning of MacIntyre’s definition, then, we define a practice this way:

> A practice is a coherent and complex form of socially established cooperative human activity in which characteristic arrangements of activities (doings) are comprehensible in terms of characteristic arrangements of relevant ideas in discourses (sayings), and when the people and objects involved are distributed in characteristic arrangements of relationships (relatings), and when this complex of sayings, doings and relatings ‘hangs together’ in a distinctive project.

We understand practice architectures as the three kinds of arrangements – cultural-discursive, material-economic and social-political preconditions – that make practices possible and that are, in turn, produced by practice.

## Ecologies of Practices

We now wish to consider how practices coexist and are connected with one another in *complexes* of practices in which each adapts and evolves in relation to the others, with local and regional variations, both on the large scale of historical time (e.g. in the evolution of contemporary schooling) and on the smaller scale of the day-to-day and moment-to-moment interactions of life in schools and communities. On this view, different practices might be understood as coexisting in relation to each other like different species in an ecosystem. To understand practices in this way is to suggest the possibility that practices might be understood as *living things* connected to one another in ‘*ecologies of practices*’ (Fig. 3.1).

Since the rise of compulsory mass schooling in the nineteenth century in the West, it seems to us that practices of learning, teaching, teacher education, educational policy and administration and educational research and evaluation have been mutually interdependent, each influencing and being influenced by the others. Indeed, to put it controversially, the emergence of mass public schooling in many parts of the world in the second half of the nineteenth century was constituted by the formation of this set of practices, interrelated as a complex of practices. While some of these practices clearly existed prior to this era (e.g. teaching and learning), the formation of mass public schooling required the formation of arrangements to regulate, monitor and evaluate initial and continuing teacher education, educational policy and administration, and

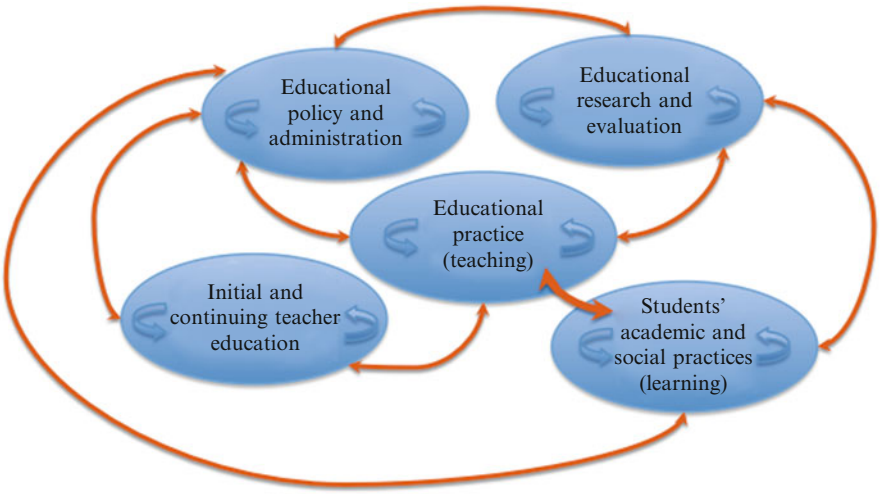


**Fig. 3.1** An ecology of interconnected practices in education

educational research and evaluation – all harnessed together. In different parts of the world, and within nation-states, the complex of practices that constitute contemporary schooling evolved in ways that vary locally but nevertheless retain family resemblances so that, for instance, practices of leadership in schools and school systems have familial resemblances while varying in their content and conduct across states, regions and schools. Similarly, in different states and different school systems, there are different kinds and intensities of relationships between leadership and administration, say, and teaching practices in schools. In one jurisdiction, for example, the state, via its administrative and leadership apparatus and practices, determines in detail the content and conduct of teaching practices; in another jurisdiction, the state sets only broad goals for education and leaves it to professional teachers to develop the detailed content and conduct of their teaching practices to meet the needs of students in different kinds of schools and circumstances. Figure 3.1 aims to depict the education complex of practices as an ecology of practices. In the figure, the practices are only analytically distinct. As will become clear, they are interdependent in the lived reality of the complex of practices.

In the case of the schools we are studying, it is clear that conditions and arrangements *beyond* schools enable and constrain what can go on *within* them. As Fig. 3.2 aims to show, educational leadership, administration and policies formed outside schools influence what can happen within them; systemic arrangements for initial teacher education and continuing professional development beyond schools influence the learning that can go on within them; system-wide requirements for curriculum, pedagogy and assessment influence classroom teaching within schools; and students' families and communities (among many other influences) influence students' social and academic (learning) practices and thus their readiness to engage in the learning practices of the school.

From the practitioner perspective, these webs of practices are *situated* in the particular circumstances and conditions of particular *sites – site ontologies* (Schatzki

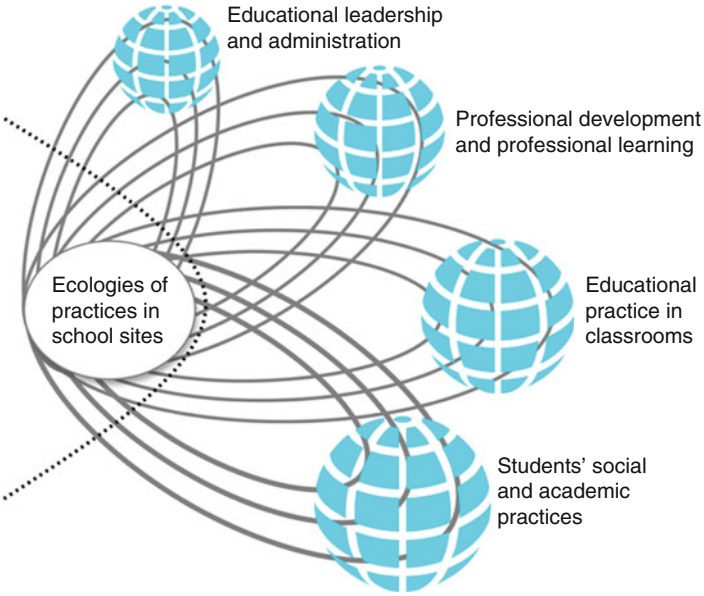


**Fig. 3.2** Practices external to a particular practice site influence local, situated ecologies of practices

2003, 2005, 2006). The practitioners of these practices are *co-inhabitants* of sites along with other people, other species and other objects, and they are in interdependent relationships with these others, not only in terms of maintaining their own being and identities but also *in and through their practices*.

If practices are social products, then learning practices is not a matter of developing just individual people's capacities to participate in these practices; it is also a matter of orchestrating language, actions and activities, and social arrangements so that people can 'know how to go on' (Wittgenstein 1974: 59–60, 62) in the practices. People need to understand and be understood by others as conducting themselves in ways characteristic of a particular kind of practice – like teaching or facilitating a professional development activity of teachers, for example. Schatzki (2010: 51) says that a practice is 'an open, organized array of doings and sayings'. We want to go a step further: to see practices like *education*, *teacher education*, *teaching* and *learning* not only as relatively passive 'open, organized arrays of doings and sayings' but *as living things*. Our central concern here is not so much with how *participants* in practices relate to one another, but rather with how *practices* relate to one another. We are accustomed to thinking about the relationships between practices in terms of the relationships between the practitioners who relate to one another in practices, but we are less familiar with thinking about the relationships between the practices themselves. Making this shift in perspective plain, we hope, will be the key contribution of this chapter.

## *The Research Study*

To test whether practices and ecologies of practices behave like living things in living systems, we use examples from our current empirical research in an Australian rural school district. The research was supported under the Australian Research Council's Discovery Projects funding scheme (Project Number DP1096275). In the school district we are studying, we are examining the interrelatedness, in practice, of (1) *leadership practices*, (2) *professional development practices*, (3) *teaching practices* and (4) *students' social and academic practices*. Our data includes (a) semi-structured interviews with school district office staff working with schools, school principals, members of school executive teams and classroom teachers; (b) focus group interviews with groups of five or six school students (aged between 10 and 12); (c) observations of classroom teaching, school staff meetings and school professional development activities; (d) general observations of a variety of activities in the school sites; and (e) analysis of a number of documents including texts about school and school district policies, programmes and arrangements.

In this school district, district office personnel and staff in schools are attempting, among many other things, to develop 'professional learning communities' at every level in the district and within schools (including in relationships with and among students). In this chapter, we focus on this activity as a 'window' into the nature, conduct and change of the practices and ecologies of practices that constitute the work of the district, the schools, the teachers and the students involved.

In relation to this focus, the school district conceptualises 'highly effective professional learning communities' as characterised in terms of six principles: collaboration, self-responsibility, human development, communication, meaningful learning and inquiry. These principles are intended to have application across a range of *sites* of practice, including the district office, schools, classrooms and communities, and the relationships created within and between these sites by different *types* of practices including practices of leadership, professional development, teaching and learning. Thus, in terms of the *practitioners* of these practices, district office staff, school principals, teachers and students are all expected to conduct their practices in relation to one another (within and between these groups) according to the six principles.

## *Principles of Ecologies of Practices*

In this section, we show how it makes sense to say that practices are living things and that they coexist in ecological relationships with one another (Kemmis et al. 2009). We will do so by using eight key principles derived from Fritjof Capra's 'principles of ecology, principles of sustainability, principles of community, or even the basic facts of life' (2005: 23).

First, we should note that Capra (2005) lists these key features of living systems:

> First, *every living organism*, from the smallest bacterium to all the varieties of plants and animals, including humans, is a living system. Second, *the parts of living systems* are themselves living systems. A leaf is a living system. A muscle is a living system. Every cell in our bodies is a living system. Third, *communities of organisms*, including both ecosystems and human social systems such as families, schools and other human communities, are living systems (p.19; emphases in original).

We intend to show how (a) practices, by analogy with species, and (b) ecologies of practices, by analogy with ecosystems, meet the criteria implied by Capra's 'principles of ecology' (p.23). If practices and ecologies of practices are living systems, then they should behave in accordance with eight principles that Capra outlines. We thus turn to a brief exploration of how Capra's eight principles might apply to understanding whether we can conceptualise (a) the kinds of practices we have been studying as living things and (b) the interconnections between these practices as ecologies of practices that have the characteristics of ecosystems. In this chapter, we have space only to give a brief illustration of how each principle might be interpreted in relation to the evidence collected in our current study.

## Networks

> [M]embers of ecological communities derive their essential properties, and in fact their very existence, from their relationships… [S]ustainability is not an individual property but a property of an entire network (Capra 2005: 23).

If practices are living things and ecologies of practices are living systems, then practices will derive their essential properties and their existence from their relationships with other practices. They will be connected to one another in the webs of practices observed across, as well as within, particular sites.

For example, the development of 'professional learning communities' in the school district we are studying occurs most obviously through practices of professional development at many sites throughout the district, and through practices of teaching and learning in classrooms. The six principles of 'highly effective professional learning communities' outlined in district office documents and our interview transcripts are all criteria to be applied to how people in the district conduct themselves (district office staff, school principals, teachers, students). They prescribe a particular way of practising various other kinds of practices (e.g. professional learning, teaching, student learning). The six principles discursively prefigure particular kinds of sayings, doings and relatings in schools and classrooms and in other places in the district, and particular kinds of learning projects to be undertaken at various levels in the district. Learning in learning communities thus manifests itself as a living practice that orchestrates (among other things) the people who practise it.

The substantive form taken by the practices of teaching and learning in and through 'learning communities' has been secured in the district by various practices of leadership (e.g. which promulgate the practice through policy documents); practices of professional development and professional learning by which the practice of being a 'learning community' is secured among principals and teachers; and practices of teaching by which the principles are secured among students. Thus, these different practices (leadership, professional development, teaching, learning) form a network in which each plays a necessary part in securing the substance of the practice (its 'essential properties' and its 'very existence', in Capra's words) of being a 'learning community'.

## Nested Systems

> At all scales of nature, we find living systems nested within other living systems – networks within networks. Although the same basic principles of organisation operate at each scale, the different systems represent levels of differing complexity (Capra 2005: 23–24).

On this view, life is to be found at different levels, for example, in cells within organisms and organisms within communities of organisms.

If practices are living things and ecologies of practices are living systems, then different levels of practice will be nested within one another; particular kinds of activities will be nested in different practices.

Nesting of this kind is evident across the complex of practices already discussed: leadership, professional development, teaching and learning. This chain does not operate in a one-way direction, however. There are also feedback loops from each to the others and not just back from learning at 'the bottom' to leadership 'at the top'. Indeed, it is not at all clear which direction – or whether there is a single direction – in which these practices relate to one another, despite conventional presuppositions of hierarchy about leaders and those they are said to lead, between professional developers and those they are said to develop, and between teachers and those they are said to teach.

More pertinently still, nesting is evident within each of those practices. For example, one might be tempted to think briefly of the director in the district office as a source from whom positional authority cascades down through the offices and occasions of the district. A moment's reflection reveals, however, that this is not so except in an abstract, rather legalistic sense: rather, the evidence shows that leadership is widely shared and practised across all levels of the supposed hierarchy of the district. Indeed, our data reveal how effectively this has been achieved, so that students regularly take and share leadership roles in particular tasks, in relation to one another; that teachers similarly share leadership roles; and that principals and schools' executive management teams share leadership responsibilities for different tasks.

Further, nesting is to be found in these practices so that, while the general principles of learning communities are used to characterise the 'head' practices of leadership,

professional development, teaching and learning, they also come into play at many levels of concreteness and particularity below the level of general aspirations. Indeed, the principles turn out to apply across many levels as the 'head' practices dissolve into particular subsidiary activities and into the intentional and orchestrated sayings, doings and relatings, and the particular situated projects, that compose them. What constitutes the practice of a learning community manifests itself at various levels of complexity, from the general and abstract to the particular and concrete.

## Interdependence

> The sustainability of individual populations and the sustainability of the entire ecosystem are interdependent…. The exchanges of energy and resources in an ecosystem are sustained by pervasive cooperation (Capra 2005: 24).

If practices are living things and ecologies of practices are living systems, then different practices (understood as different species of practice) will be dependent on one another in ecologies of practices (understood as ecosystems). They will also be dependent upon their relationships with the processes and practices of the wider society in which they exist. The sustainability of different practices will depend on the (ecological) relationships of interdependence between practices within an ecology of practices, and relationships of interdependence between different ecologies of practices.

Some of what was said in relation to Capra's first ecological principle, networks, also applies here: the relationships between the various nodes in the network composed by the complex of practices in education (including, among others, practices of leadership, professional development, teaching and learning) are relationships of interdependence. Each is shaped by and in turn shapes the others. Thus, in different settings, the practices interrelate in somewhat different ways. In one school (and among some groups within a school), there is greater evidence of *shared responsibility* as an inchoate principle of the practice of being a learning community; in another (and among some groups within a school), there is greater evidence of what was frequently described to us as 'distributed leadership' in which the presupposition of hierarchy survives as different people take turns to lead or when individuals take leadership roles for particular tasks.

It seems to us from the evidence we have gathered that achieving the particular forms of learning communities evident in different schools and other sites around the district has been the result of a gradual evolutionary process spanning more than 20 years, from a time (in the early 1990s) when several major, intensive and large-scale professional development programmes began to be rolled out through the district. These had long-lasting impacts on a number of those who participated in them, and some of the most senior people in the district and its schools were among those most profoundly affected by the notions of 'communities of practice' and 'learning communities'. Thus, different school 'ecosystems' evolved slightly differently from

one another in their realisation of the idea of the learning community. There is also evidence of key people moving between schools and into district office positions of responsibility with the effect of renewing commitment to the ideal of the 'learning community' while also permitting it to adapt and evolve according to local opportunities and circumstances. Thus, in one school, the notion of the learning community may be slower to be realised in the professional development work within the school (relying more heavily on external inputs and externally devised programmes for professional development of staff), while, in another, professional learning is seen explicitly as a shared responsibility of the whole staff (even though some members of staff are more strenuous than others in practising the ideal).

## Diversity

> A diverse ecosystem will be resilient because it contains many species with overlapping functions that can partially replace one another…. The more complex the network's patterns of interconnections are, the more resilient it will be (Capra 2005: 25).

On this view, different kinds of organisms are necessary to one another in an ecosystem; such a view implies not only difference but also distribution of entities in time and space.

If practices are living things and ecologies of practices are living systems, then an ecology of practices will include many different practices with overlapping ecological functions that can partially replace one another. Particular sites will embrace different practices that coexist and overlap with one another (not always without contradiction or resistance).

Some functions of leadership or professional development, for example, are pursued by a variety of different participants in the school district we are studying. Various leadership and professional development practices across the district supplement and complement one another – both within and between the particular domains of leadership and professional development. Indeed, some professional development activities are indistinguishable from leadership. Key participants in those practices also supplement and complement one another's work.

In classrooms, too, following the principles of effective learning communities, collaborative teaching practices and collaborative learning practices, for example, supplement and complement one another. Arguably, these patterns of practice have become more resilient in the school district over the past 20 years of leadership, professional development, curriculum and pedagogical initiatives embodying the notion of 'learning communities'. To us, there is striking evidence of the depth of commitment to, and the ubiquity of enactment of, the six principles of learning communities across levels and sites in the district. There is a strong sense that they echo through the life and work of district office staff, principals, teachers and parents and through the whole complex of practices that constitute contemporary school education.

## Cycles

> Matter cycles continually through the web of life [for example, in food chains, and] [a]n ecosystem generates no waste (p.25–26).

If practices are living things and ecologies of practices are living systems, then particular kinds of sayings, doings and relatings (seen to hang together in distinctive ways) will cycle through practices or ecologies of practices when those practices are reproduced. Practices are enacted by individuals but also orchestrated in the interactions between people, and reappear – often with variations and perhaps transformations – when they are re-enacted on subsequent occasions.

People cycle through the practices of leadership, professional development, teaching and learning that together constitute the complex of practices of contemporary school education. Moreover, individuals move from one role to another (e.g. from student to teacher, from teacher to principal or from teacher to district office staffer). In doing so, they bring capabilities formed in the reciprocal roles involved in these practices – the reciprocal roles of teacher and learner (in classrooms and in professional development activities), and of leader and 'follower' (though we think this hierarchical perspective is increasingly submerged as the new perspective and new practices of shared responsibility are emerging, hesitantly and patchily, around the district). Other resources and material objects (e.g. policy and curriculum documents) also circulate through the practices that make up the complex of contemporary school education.

## Flows

> All living systems, from organisms to ecosystems, are open systems. Solar energy, transformed into chemical energy by the photosynthesis of green plants, drives most ecological cycles, but energy itself does not cycle… [Ecological systems are] dependent on a constant inflow of energy (Capra 2005: 26).

If practices are living things and ecologies of practices are living systems, then energy will flow through an ecology of practices, eventually being either dissipated or transformed from one kind of energy to another.

In our view, (a) meaning (in the semantic dimension), (b) materiality (in the dimension of physical space-time) and (c) connectedness (in forms including solidarity and resistance, in the dimension of social space) flow like energy through practices – in our study, through practices of leadership and professional development, teaching and learning. They also flow through the ecologies of practices formed by the relationships between these practices in the complex of school education practices. These forms of energy galvanise both the practices and the people who enact them; they can be dissipated and they can be transformed (e.g. from ideas into actions or from actions into social connections) from one form into another.

Unfortunately, there is not space here to elaborate this complex ecological principle as it applies to the three kinds of energy that we have hypothesised here as flowing through practices.

## Development

> All living systems develop, and all development invokes learning (Capra 2005: 27).

On this view, development occurs through stages, each one sustainable in its own right although it may then be superseded.

If practices are living things and ecologies of practices are living systems, then practices and ecologies of practices will be seen to develop through stages. There is little disagreement that practitioners' knowledge, skill and responsibility develop as they become more familiar with and more accomplished in the practice; in addition, we believe, practices and ecologies of practice develop and evolve.

Even in the 18 months of our observations in classrooms in the district, we have seen practices of leadership, professional development, teaching and learning evolving more fully to embody the principles of effective learning communities advocated by the district office. This is not to say that the development has been uniform, ubiquitous, uncontested or unresisted. Some people have not embraced the new forms of practice, and some practices continue to be reproduced in their pre-learning community forms: thus, for example, the positional authority of school district leaders and principals still functions in the background, in some ways maintaining a tension between old ways and new – between hierarchy and shared responsibility. Nevertheless, the evidence we have collected – including substantial amounts of interview data about changes in the district over more than 20 years – suggests that there has been a gradual transformation of the complex of school education practices as they are realised in the district.

## Dynamic Balance

> All ecological cycles act as feedback loops, so that the ecological community continually regulates and organises itself (Capra 2005: 28).

On this view, living systems adapt both to changes within and to external pressures.

If practices are living things and ecologies of practices are living systems, then ecologies of practices will regulate themselves through processes of self-organisation and (up to some breaking point) will maintain their continuity in relation to internal and outside pressures. We will see practices not just as coexisting as if coincidentally, but relating to one another in living ecosystems. In ecologies of practices, there will be real and concrete connections between practices *as they happen* (Schatzki 2006).

The principle of dynamic balance is one of the most interesting in terms of the evidence of our study. We have already indicated how the practices of leadership, professional development, teaching and learning form a network of relationships in the complex of practices of contemporary school education; that they are interdependent; that people cycle through the practices; and that they are connected by flows of matter and energy. The conscious adoption of the principles of highly effective learning communities in this school district has helped to build a common specialist discourse in many sites around the district: a common language in which the principles are expressed as a set of interconnected ideas (sayings). These ideas also find expression in common kinds of activities (doings) across the levels (e.g. team work and collaboration). And they are intended to establish a particular kind of relationship (relatings, 'learning communities') among the people involved. Achieving this unity of commitment, action and connection is undermined, however, by the hierarchical relationships of the past, for example, when teachers are obliged to accept and adopt a curriculum package that does not embody a pedagogy consonant with the idea of the learning community. Nevertheless, through gradual adaptations and adjustments over 20 years, a transformation towards the shared responsibility constellation of practices does seem to have occurred across the whole complex of practices of school education.

We think that this is a big claim. It is partly explicable as a matter of selection of the district and the schools we chose to observe: we asked to see settings where practice was rather exemplary, where things were perceived to be going well. We did not want reports of our study to give the impression of giving an account of problems in the practices of leadership, professional development, teaching and learning. One effect of this selection is that, in general, we have accepted the interpretation – our informants' as well as our own – that things are going well, and that practice is being transformed across the district in the light of its advocacy of the practices of learning communities.

The evidence makes plain that, over 20 years, practices of leadership, professional development, teaching and learning in the district have subtly adjusted and adapted to one another in ways that accord with the principle of dynamic balance. New generations of teachers and students have also been drawn into the practices of learning communities and shared responsibility as they have come into the district and its schools. Although adoption and adaptation of these new practices continues to be challenged by emerging problems and issues, and by resistances, contests and occasional conflicts, one of the things that seems to be securing the new constellation of practices is that they are in a relationship of dynamic balance across the domains of leadership, professional development, teaching and learning. The new constellation is being secured by an evolutionary process of adoption and adaptation of the ecologies of practices that exist at various levels and sites across the district.

This brief review of the plausibility of interpreting practices as living things that together form ecologies of practices has led us to conclude, first, that the broad practices we are studying – leadership, professional development, teaching and learning – do appear to behave as living systems, and, second, that the complex of

practices that together constitute contemporary school education can be understood as an ecosystem in which these practices relate to one another in ecologies of practices.

## Learning Practices

In our view, learning a practice involves entering and enacting an organised pattern of human coexistence. Such forms of human coexistence do not occur alone, as singularities; they exist in interdependent relations with other practices that together form evolving ecologies of practices. What we see in learning practices is a pattern of distributed involvement by different participants in the activities that make up a practice: practices are occasions of *sociality*. Practices are not produced in their entirety by the actions of single individuals each acting alone. Rather, participants meet one another in *ecologies of practices* in which the actors *and the practices* are interdependent. Individual actors do not and probably cannot produce the whole practice alone.

The evidence from our observations of practices of leadership, professional development, teaching and learning in the rural school district we are studying leads us to conclude that 'learning a practice' means coming to know 'how to go on' (Wittgenstein 1974) in the sayings, doings, relatings and in the projects that constitute the practice (see also Kemmis et al. 2011). The evidence of our observations also brings us to the further conclusion that 'learning' is not a distinctive process (e.g. a psychological process) but, rather, a description of the state of a person's progress in coming to know how to go on in a practice (e.g. in a practice like collaborating with others in a learning community and taking shared responsibility with other participants for mutual development in the group).

Given the fact that the word 'learning' plays such an important role in language-games about schooling and education, we do not expect the word will be abandoned. We hope, however, that readers will in future think not so much about 'learning' as a psychological process, but as a word used to describe someone being in a state of coming to know how to go on in language-games, activities or practices. This is a substantial change of perspective.

## Conclusion

In this chapter, we have sought to show that practices exist in networks with other practices with which they are interdependent. Practices are visible not wholly in the actions or performances of individual actors but rather in performances that orchestrate the activities of different actors. Thus, for example, we observe the practice of teaching not wholly in the actions of an individual teacher but rather in a web of relationships that orchestrates the teacher and students, and that is itself orchestrated

by a background web of relationships of leadership, professional development and student learning, among others. Coming to know how to go on in this practice also involves coming to know how to go on in this web of interrelated practices.

We conclude by returning to Yeats' question, 'How shall we know the dancer from the dance?' Can we distinguish a practice from the performance of the practice by a practitioner?

Our observations of the practices of leadership, professional development, teaching and student learning in a rural Australian school district have brought us to the conclusion that practices are distributed among those who enact them; they do not exist wholly in the actions of individual participants. We thus conclude that the practices of leadership, professional development, teaching and learning exist in an ecology of practices in which these distinctive practices play mutually supporting, complementary roles in relation to one another. We *can* know the dancer from the dance, the practitioner from the practice.

For us, the term 'ecologies of practices' is not just a convenient metaphor describing the relationships between practices; rather, it is a description of how practices relate to one another as living entities in living systems.

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# Chapter 4
# Sensing the Tempo-Rhythm of Practice: The Dynamics of Engagement

**Mary C. Johnsson**

## Introduction

Conceptions of time and space are integral to understanding how organizations change and how practices and practitioner activities adapt to support the changing nature of organizational work. In learning a practice, practitioners often enact activities that are repetitive and recognizable to others, but they must also judge and enact when it is appropriate to vary these activities for contingent circumstances and the particular communities of practice in which they participate. In conventional workplace learning research, the discussion of time (as in analyzing the impact of significant organizational events or sequences of activities for learning) is often separated from the discussion of space (as in analyzing the sites or spatial configurations for learning) as if time and space are distinct causal factors. The contributions of process philosophies (Ford 2009; Langley 2007), postmodern geography (Burkitt 2004; Lefebvre 1991, 2004; Massey 2005; Soja 1996) and processual organizational research (Antonacopoulou 2009; Feldman and Pentland 2008; Schatzki 2006, 2009; Van de Ven and Poole 2005) argue for more integrative theorizations of time and space in conceptualizing practice as a multifaceted, holistic and dynamic phenomenon.

This chapter builds upon integrative views of time and space by examining practice dynamics and their implications for understanding practice change and practice learning. In the dramatic arts (Stanislavski 1979), *tempo-rhythm* describes how actors incorporate speed, intensity and variability into their movement and speech actions to engage other actors and the audience in the shared experience of developing authentic characters and interpreting plots and storyline during performance. To theorize the dynamics of engagement, I use tempo-rhythm as a metaphor

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for the manoeuvres that practitioners engage in with others to understand, negotiate, enact and adapt their organizational work for a myriad of interests, needs and circumstances, in ways that remake practices.

In performing practice, practitioners learn not only the necessary structures, rules, rituals and knowledges of a practice and how to coordinate these understandings with others given the circumstances of their expected roles, accountabilities and outcomes. Importantly, I claim, relational capabilities develop emergently from practitioner interactions with others, generating engagement of a learning kind that is critical to the adaptation of that practice. The tempo-rhythm of practice incorporates the elements of repetition and regularity that enable engagement to be experienced as a shared and recognizable activity involving multiple others, while at each instance, offering the possibility to surprise using creative action that adapts practice for changing needs or idiosyncratic reasons.

In the following section, I first unpack how organizational change research is shifting from using discrete concepts of time and space towards more integrative spatiotemporal concepts that recognize the ecosocial nature of practice-based change. I discuss the theoretical basis of the tempo-rhythm metaphor and why it offers potential value for theorizing practice dynamics.

I then illustrate the usefulness of the tempo-rhythm metaphor for understanding practice learning and change, by drawing attention to the culinary dynamics of cheffing practice rather than its component contributions (e.g. knowledge, skills, competencies) as a practical vocation. Complementing more descriptive views of practice as architectures (Kemmis and Smith 2008), I focus on viewing the dynamics of practice as flows of tempo-rhythms that practitioners negotiate in performing together. This embodied learning with others acknowledges the local, expressive, aesthetic and political significance of patterns that vary in novelty, variety or intensity. Such patterns provide meaning or cacophony to the unfolding ways that practices change, as practitioners strive to structure and respond to the dramaturgical patterns of everyday work life.

## Unpacking Conventional Understandings of Practice Change

### *Towards the Indeterminacy of Everyday Work Life: Perspectives on Time, Space and Change*

Everyday work life is commonly ordered around repetitive activity routines, yet what actually happens cannot be predicted with any foresight. Routines are typically organized through temporal notions such as official work hours, calendars, deadlines and events that depict time as objective and duration-based ways to order our lives (i.e. notions of past, present and future). In such ways, objective time assumes relations of succession, that is, linear before-or-after orderings. Space can

be similarly treated in literal ways to describe the arenas within which these events occur – the physical places, locations and settings that influence the activities performed, the decision paths chosen and any learning that results. These objective assumptions of time and space continue to underpin certain theorizations of organizational change as (1) planned change that can be normatively prescribed and/or (2) 'deviant' phenomena that need to be 'managed' back to conditions of desired stability (Armenakis and Harris 2009; Burke and Litwin 2009).

In contrast, temporality is recognized by other organizational researchers as more significant than only depicting the durational 'container' for practice activity. For example, Orlikowski and Yates (2002: 686, italics in original) adopt a phenomenological view, suggesting that practitioners experience change through '*temporal structures* that they recurrently enact in their everyday practices [so that these structures] reproduce and reinforce their legitimacy and influence in organizational life'. By Orlikowski and Yates' (2002) definition, these temporal structures are social spaces and conventions: they are formed through human sensemaking as provisional accomplishments that alter through ongoing enactments and such structures should be studied as 'time in use, that is, what organizational members actually do in practice' (Orlikowski and Yates 2002: 687).

In particular, postmodern researchers emphasize a spatial turn (Burkitt 2004; Lefebvre 1991; Massey 2005; Soja 1996) to these socially constructed temporal concepts: they recognize that time and space integrate together to create a sense of dynamism and provisionality to how life is always lived in the present. Space is not just the physical background (perceived space) or relevant situation (conceived space); it is socially, politically and culturally produced as a third space (lived space) that is constantly being (re)constructed in ways that are meaningful to the experiences of actors (Lefebvre, cited in Gulson and Symes 2007: 101; Soja 1996). Such experiences are multidimensional and indeterminate in that they involve different social fields and relations of power that are 'produced differently depending upon [various] time and space combinations' (Burkitt 2004: 222).

Yet these lived experiences are not merely abstract forms of reflective human sensemaking. In articulating his juxtaposed concept of 'timespace', Schatzki (2009) reminds us that the parameters of a *changing* practice embody teleological understandings about the purpose of activities taken and the consequences of those actions that reshape the myriad of place-path arrays through which practitioners constantly navigate. Such interwoven timespaces among participants are 'orchestrated' towards teleological ends, that is, they structure and govern action in such ways that 'participants' lives hang together through sameness and difference … [as an] omnipresent feature of social life' (Schatzki 1996: 188).

In his more recent work, Schatzki (2009, 2010) further clarifies that the orchestration of interwoven timespaces involves more than acknowledging coordinated actions that are common or shared among people. For example, in the context of a horse raceday meeting, organizers arrange the design and location of betting sites in certain ways to enable the social practice of punters queuing at betting windows to place timely bets on a horse race before it is run (Schatzki 2009: 39).

Here, orchestration involves the purposive bundling of temporally structured practices and materialities in enjoined ways, that is, they harmonize the orientations (Schatzki 2009: 47) of people towards enactment of social practices having similar or different ends. Schatzkian orchestration is underpinned by multilayered timespace configurations shaped by individual, activity, practice and enterprise perspectives, resulting in a patterned tapestry of overlapping and integrative social practices.

Other organizational scholars are less emphatic than Schatzki about the teleological nature of practices while nevertheless maintaining an ecosocial spatiotemporal character to practices as they change. For example, they focus attention on the dynamics of language (Marshak 2002), power (Carr and Hancock 2006; Clegg et al. 2006), negotiating boundaries, competencies and materiality (Bjørkeng et al. 2009) as ways of incorporating a more pluralistic approaches to practice-based processual research (Pettigrew et al. 2001).

I have chosen to label these dominant views of time and space as objective, phenomenological and ecosocial (Table 4.1). As I see it, each view uses assumptions of time and space that offers a benefit but also raises a problem for studying how practices change. The analytic discreteness of the objective view is conceptually simple but ignores the indeterminate nature of human action. The phenomenological view brings in the contextualized lived human experience but misses the rich animal, material, purposive and unfolding character of human practices. Following Lemke (2000), I align myself with the ecosocial view, yet continue to ponder how practitioners orchestrate the remaking of their practice together, that is, what temporal reshapings get created and why. It is here where I believe the metaphor of tempo-rhythm can be conceptually useful and its theoretical basis is discussed next.

## *Tempo-Rhythm and Dramaturgical Concepts*

The creative arts use various technical terms that have metaphorical value for understanding change and its relationship to learning. In music, tempo is its speed expressed in terms of beats per minute or beats per measure and (in classical music) designated by tempo markings commonly in Italian such as *allegro* (fast), *adagio* (slow) or their variations. Rhythm is a more complex concept that incorporates a unique combination of tempo, accents (sounds that are stressed louder than others) and metre (pulses of variable duration between beats), forming patterns of sounds that suggest a sense of 'forward movement' (Merriam-Webster Collegiate Dictionary, cited in Fairchild and London 2003: 660). Such patterns are recognizable in music and dance forms such as a military march, a Viennese waltz or the more irregular syncopation of improvizational jazz. Two pieces of music may have the same tempo but different rhythms (e.g. tango versus polka). Alternatively, a piece of music with a designated rhythm sounds quite different when played at different tempi (e.g. Rimsky-Korsakov's *Flight of the Bumblebee*).

In drama, Stanislavski (1979) coined the term *tempo-rhythm* to describe how actors incorporate speed and intensity into their movement and speech actions when

**Table 4.1** Three views of time, space and change

| | Assumptions about time, space and change | Implications for studying changing practices |
|---|---|---|
| *Objective view* | • Chronological time and Cartesian space are separable variables that ignore, imply or elide the other<br>• Relations are successive, linear and literal<br>• Change is movement towards various states that are causally or contingently ordered by particular events (time) or sites (place) (Weick and Quinn 1999)<br>• Benefit: Analytic simplicity<br>• Problem: Time and space are discrete and incidental to change analysis | • Analysis focuses on explaining significant change events or sites<br>• Change can be managed in terms of individual (leader, employee) motivations for action or readiness for change (Armenakis and Harris 2009)<br>• Change requires returning positions of variance (internal or external) to desired states of stability (Burke and Litwin 2009) |
| *Phenomenological view* | • Time and space are intertwined as constituting lived experience (the existential focus of early Heidegger, e.g. Rosenthal 2000)<br>• Relations are cyclical and socially constructed<br>• Change is characterized through the experience of enactment and the construction of social practices<br>• Benefit: Constructive value of human experience<br>• Problem: Time and space are intertwined but remain contextual factors for change analysis | • Analysis focuses on explaining the human sensemaking process through the activities of what people do in practice<br>• People temporally structure change by recurrently enacting and legitimizing them as social practices in organizational life (Orlikowski and Yates 2002)<br>• Change is the context for other causal effects (Goodrich and Salancik, cited in Van de Ven and Poole 2005) |
| *Ecosocial view* | • Timespace is situationally constructed for particular purposes and outcomes with temporality and spatiality as teleological phenomena (Schatzki 2009)<br>• Relations are ecosocial and emergent<br>• Change is characterized as continuous, embedded in actions and materialities<br>• Benefit: Sociomaterial value in adaptation<br>• Problem: Time and space are intertwined and central, yet the impetus for adaptation and changing configurations remain unclear | • People experience change intersubjectively as symbolic or expressive markers of power, difference and control (Carr and Hancock 2006)<br>• People experience change as transforming, e.g. an alliance team becoming a practice together by authoring boundaries, negotiating competencies and adapting materiality (Bjørkeng et al. 2009)<br>• Pluralistic approaches better integrate organizational outcomes with processes and embed temporal and situational complexities (Pettigrew et al. 2001) |

they create an authentic character believable by their audience. Dramatic actors vary their tempo – slowness or fastness – by adjusting their physical movements or the speed at which they say their lines. They can also change the unfolding rhythm to their performance by using innumerable variations of movements, speech, pauses and body language to communicate aesthetic meaning to other actors and the audience, going beyond what can be visibly seen. Tempo-rhythm also integrates both senses of the individual (the actor or role) and the collective (the storyline or plot) in seamless ways because an actor is typically only one character within the totality of a dramatic performance:

> Whole performances have their tempo-rhythms … a performance is not one thing, it is a series of large and small conjunctions of varied and variegated rates of speed and measures, harmoniously composed into one large whole … often a fine play, which has been beautifully designed and acted, fails to meet with success because it is performed with undue slowness or inappropriate briskness. Just imagine the result if you tried to play a tragedy in tempi suited to vaudeville! (Stanislavski 1979: 213).

These images of patterned flows and energy of movement from the creative arts resonate with similar notions of temporal structuring in organizational learning (Shotter and Tsoukas 2007). For example, Shotter and Tsoukas suggest that rather than be guided by static maps, practitioners need a '*prospective* account … that, in its telling, 'moves' us this way and that through the 'terrain' of the circumstance' (Shotter and Tsoukas 2007: 21, italics and quotes in original). This allows us to gain a storied sense of the pace of practice development as it unfolds. Cues and signals from others in the shared circumstance (i.e. other actors, the audience, artefacts or institutional protocols) help to shape what is negotiated to be relevant in the unfolding drama. While there may be expectational understandings about how these signals will be received, they are also offered without any prior knowledge of how they will actually be responded to. This relationally responsive process describes understanding as emergent, dependent upon unknown cues and responses that create the possibility spaces for learning.

Such possibilities, however, must be sensitive to the tempo-rhythm of the prevailing circumstances and those who construct them. If the tempo is not aligned for the circumstances, individual participants are visibly out of step, endangering the completion of outcomes, their quality as well as the fragility of interpersonal relationships. If there is not a rhythm that is collectively committed to, no recognizable pattern can be generated or followed, lowering the likelihood that actors can create new practices together, let alone reinforce existing ones. If tempo is not integrated with rhythm, there is no forward movement or cohesive progress, just some dissonant noises attempting to make a tune. These dramaturgical concepts reinforce how temporal and spatial concerns constantly interweave through local choices for action, activities, outcomes and the materiality of practice to structure how practitioners orchestrate changing patterns of engagement. Next, I illustrate how examining the tempo-rhythms in culinary practice can offer analytical insights for practice change and practice learning.

## Culinary Dynamics and Learning

### *Research Sites and Methodology*

The culinary workplace represents an integrative tapestry of vocational, social and material practices that depend upon the performative flair of culinary dynamics that practitioners orchestrate 'in the heat of the moment'. This tapestry includes objective space as place(s) – in my research, three research sites at a function centre, a café and a metropolitan fine dining restaurant. But, as Schechner (2003: 174) observes, people tend to transform nature into culture, that is, these places are also lived spaces shaped by acceptable cultural protocols (e.g. kitchen chatter about the Saturday football results while busy hands perform the microtasks associated with required dishes). Rules, knowledge and materiality pervade this spatiotemporality, either explicitly through artefacts (e.g. job descriptions, occupational health and safety procedures, recipes) or as processes tacitly known by practitioners (e.g. the 'right' texture to a perfectly cooked soufflé; the hot and cold methods for making crème brŭlée). A portfolio of micro culinary practices form the basis for activity, task, job and role performances by individual practitioners (e.g. chefs) as part of larger groups (e.g. the kitchen brigade) working towards the common purpose of their employing organization (e.g. the restaurant).

Methodologically, I combined various qualitative data collection methods to gain an in-depth understanding of workers' experiences of these organizational practices. I spent 3 months observing performing professional and apprentice chefs and collecting additional data from 15 practitioners through individual, small group or focus group interviews. At each research site, I documented my observations of work 'in action' through field notes and recorded 'talk in action' where practically feasible. I analyzed how work policies are instantiated in material ways through practice documents, signage and artefacts. Shortly after my own observations of practitioner interactions, I asked participants to 'make sense' of what had happened and to reflect upon how such activities shape their understandings about what they do and how they practise, and what those understandings mean to them as practitioners.

In parallel, I conducted desk research using secondary sources to identify industry trends or contextual pressures for change. During the participant interviews, I probed for how these wider influences shape individual or organizational motivations to change existing practices. For example, I considered how the relations and activities between professional and apprentice chefs may be affected by the current chronic shortage of qualified Australian chefs and the resultant government response to support incentives and work placement opportunities for apprentices (Department of Tourism Industry and Resources 2004). In sum, this multilayered methodological triangulation allowed me to investigate how organizational practices are practically 'lived and experienced' through the everyday judgements, actions and talk of practitioners who are accountable for delivering organizational outcomes that are responsive to prevailing contexts of work.

## *The Tempo-Rhythm of Culinary Service*

At its heart, the commercial cookery business rises and falls on the success of how kitchens work together during 'service' (for cafés and restaurants, the period during breakfast, lunch and dinner when high numbers of customer orders must be delivered). Whereas the front of house (where customers and wait staff are located) may be designed to be elegant, cosy or friendly depending upon the desired ambience and market positioning, the back of house (kitchen) represents coordinated mayhem and cacophony. The kitchen is a recognizable yet unique pattern of visual, aural and olfactory resources that depends upon specifiable (e.g. rules, protocols, workflow, materials and placement) and non-specifiable (e.g. reacting to the vagaries of fresh food as it is cooked and emergent cooking events) features involving combinations of spatiotemporal actions and arrangements.

It is during the pressure of service that prior practice preparations, skills, knowledge and experience must be contextually applied in ways that have consequences for the practitioner (preparing the grilled lamb cutlet), event (delivering two customer mains simultaneously to the same table), practice (the professionalism and flair of commercial cookery) and enterprise (sustaining the reputation of the restaurant). Workflow and coordinative understandings are distributed 'in the heat of the moment' across different practitioners because the typical organization of kitchens assigns chefs by station and function (e.g. individual responsibilities for meal components such as grill, cold larder, dessert), yet outcomes (e.g. customer orders) require simultaneous delivery (e.g. all the finished main orders including their accompaniments for all customers at one table at the same time).

Service workflow is 'bursty' and sporadic. It is initiated by the event of an order (usually activated by docket information from an order machine) which then generates an intense series of parallel activities from multiple practitioners that are adjusted as required by a sous-chef who is the kitchen operations manager. For example, the sous-chef yelling 'two minutes to the lamb' allows the chef preparing the vegetable accompaniment for that lamb dish to judge whether she must accelerate personal preparations so that the total order can be completed in 2 min. In this practice, the end results of quality, delivered and completed customer orders are intimately linked to their means (e.g. how long the lamb cutlet should be grilled to remain tender, juicy yet cooked, or how to retain the heat and seasonings of the accompanying sauce until the time the customer first tastes it on the plate). Individual practitioner roles and activities can be differentiated – who produced the dessert, who dressed the salad. Yet it is the cumulative effects of many holistic outcomes that sustain the standards of excellence for the overall practice – for example, customer preferences for a particular cuisine, the explicit and implicit techniques that govern that particular culinary style and the ambience and efficiency in delivering a holistic dining experience that generates future demand for that enterprise.

I closely observed the interactions of four chefs – executive chef, sous-chef (grill/hot dishes), apprentice chef (cold and side dishes) and dessert chef – during a pressure-filled à la carte lunch service lasting 64 min. The *tempo* of service is partially

structured by social practice dining protocols concerning average front-of-house time from customer arrival, seating, menu review, selection then order (and then delimiting the acceptable waiting time until order delivery). This links to back-of-house temporalities that are initiated by an order docket confirmation that generates a flurry of parallel practitioner task-interdependent activities. For example, the apprentice starts the green salad side dish; in parallel, the sous-chef grills the lamb cutlet. These activities must be 'timed' (coordinated through kitchen workflow) to deliver a complete customer order comprising both main and accompaniment per customer table. The dessert chef is initially a non-participant in this performance, but has a temporally based expectation (e.g. after the customers finish their mains) of a future performance that cannot be assured (e.g. those customers may choose not to order dessert).

Here, tempo (the regularizing aspect of practice like the recognizable beats per measure in music) acts to configure familiar temporal shapes and spaces of culinary practice – the before-and-after activity orderings of a customer order, the interdependent coordinative processes among practitioners working on parts of the same dish and the material availability and arrangements needed in support (e.g. the right kinds of clean pots and utensils supplied by the kitchen hand). Kitchen tempo during service is partly structured by chef practitioners (e.g. What is good culinary practice?). Yet this tempo is also partly orchestrated by other participant performances (e.g. customers deciding 'What do I feel like eating today?'; 'please replace the broccoli by spinach because I'm allergic') or relevant contextual conditions (e.g. whether today's lunch service occurs on Melbourne Cup Day). Each performance is constructed from a diverse set of governing spatiotemporal conditions that go beyond what can be specified as the rules of practice or known in advance. Whether enacted through past instantiations of similar performances, provided to the apprentice chef through culinary studies or passed along as coaching advice by the executive chef, tempo-oriented performances signal recognition of practice standards and understandings (culinary standards, dining protocols) that are tailored for today's performers 'playing together'.

Complementing tempo is the *rhythm* of service. Rhythm provides additional unpredictable elements of novelty, interest and intensity that result in kitchen synchrony, cacophony or authentic variations during performance. Rhythm acknowledges the performance of practice as creatively unfolding, using the vagaries of cooking events or the unique personalities and capabilities of participating practitioners. Rhythm changes the familiar temporal shape of what culinary practice is (expected or good practice tempos recognizable by other chefs) to offer fresh new performance possibilities using the interweaving resources 'at play'. In my observation of service, practitioners had to progressively judge whether they are 'in sync' with each other in completing an order (e.g. the timing of plating up their menu items) or to instigate corrective actions (e.g. to hurry up, slow down or vary certain actions) if they sense they are not.

A practitioner's rhythm (or lack thereof) will impact the rhythm of her colleagues, causing surprise in the collective performance that can disrupt the ongoing tempo. For example, I observed the apprentice chef inadvertently drop a bowl of green bean discards onto the floor as she was preparing her third customer order. For her, she suddenly lost the temporal synchrony she demonstrated in delivering

her first two orders. In response, the executive chef moved from helping the sous-chef to plate up the lamb main to providing some discreet corrective action to the apprentice. After about 1 min as the apprentice recovered, the executive chef stepped back to his original position. In sensing this alteration to anticipatory action, the sous-chef chose to perform the tasks that his 'plating partner' previously performed on the past two orders, as a corrective to ensure that the customer's dish was not unnecessarily delayed. This minor variation of practice occurred tacitly without talk. The three practitioners in this micro-performance sensed what was happening and adjusted their actions 'in the heat of the moment'. Maintaining the momentum of service, a key operating principle in most kitchens, governed the need for practitioner adaptation in this instance.

Tempo-rhythm can be made explicit through the expressive cues of language (e.g. the sous-chef shouting 'two minutes to the lamb!' then later, 'one minute to the lamb!'). But as in theatre drama, language is only one of several human-sensing tools that can designate engagement. In culinary work, common tools include verbal responses of 'yes chef!' to acknowledge alignment, an increased acceleration of applied motor skills, use of peripheral vision to check pace and synchrony, or heightened adrenalin levels. During my research observation, this kitchen's tempo-rhythm adjusted order by order over the service period: murmurings of informal kitchen chatter when the rate of orders was low (minutes 1–14), more kitchen noise, less chatter as more customer tables filled (minutes 15–30), frenetic 'almost-panic' levels of concentration accompanied by faster body movements when six main dishes were needed for a table of six (minutes 36–47), finally, a slowing of breathing sounds and movements with energy spikes for occasional dessert orders (minutes 52–62).

To learn a practice dynamically is to discover novel ways of practising together that are recognizably in concert with others, yet offer the possibilities for new understandings of practice. Each pattern of 'decisions taken' structures the consequences and possibilities for what next can be taken or how next to go on. Tempo-rhythm in practice performance is not explainable from a single causal source or defined by a set place-path array. Spatially, practice performance can be represented, from one perspective, as a continuum of nodes but more accurately as complex webs of relations and actions (Schechner 2003: xvii). As performance unfolds ecosocially, the spatiotemporal arrangements 'in play' create changing patterns of resources never to be repeated in exactly that pattern again.

Although a chef may reproduce the same lamb and salad dish the next day or the next month, the prevailing circumstances, their co-workers, the flow of customer orders or other factors will again be different, raising the possibilities to deliver, adapt, learn and contribute to the remaking of that practice in small or large ways. This Bourdieuian 'generative structure … that is being continually reformulated' (Burkitt 1999: 73) develops relational capabilities that can only emerge through the interactive opportunities afforded by performing together. Novice practitioners, such as the apprentice chef, may initially rely on the safety net of technical guidelines (e.g. how the recipe is written) or on-the-job feedback, until they develop their own practice-based judgement skills and confidence to know where and when to vary their tempo-rhythms to 'fit and surprise' others in the dance and drama of practice.

## The Implications of Practice Dynamics for Understanding Learning and Change

The previous section analyzing chefs performing practice suggests that workplace practice can be viewed, at a minimum, as (1) a complex spatiotemporal arrangement of interconnected activities, (2) involving practitioners, material and non-material resources and local conditions that, (3) interweave ecosocially towards outcomes, and (4) that partly structure how next to proceed. In this final section, I discuss some implications in shifting the research lens to practice dynamics for understanding learning and change.

Workplace learning research and organizational change research have too often developed as separate domains, undervaluing the utility of their distinctive contributions for the other. For example, conventional concerns of skills, competencies and educational orientations have dominated workplace learning research, whereas organizational change research has highlighted enterprise resistance, frameworks for managing planned change and the catalyzing role of change agents (Armenakis and Harris 2009; Fenwick 2001; Hager 2004; Ruona and Gibson 2004). In introducing an integrative spatiotemporal concept like the tempo-rhythm metaphor, I suggest that in practice, it is the contextualized and patterned configuration of practice resources (spatiality) flowing in particular ways (temporalities) that lead to the meanings ascribed by practitioners when they learn to remake a practice together. Learning necessarily involves change; they are correlative concepts that are intimately connected. Further, as the culinary case example attempts to demonstrate, practice-based learning has a spatiotemporal form and flow that, through its materiality and purposive orientation, is orchestrated not by an individual participant or explained by abstract concepts, but performed as a meaningful, cohesive collective drama.

This spatiotemporal character to practice-based learning exhibits several distinguishing conditions and characteristics:

- Practice is anchored in *actions* that require ongoing answerabilities in the 'performance of the act' (in Russian, *postupok* meaning 'a step taken'; Bakhtin 1993: 42). This means learning to adapt to resultant consequences for both the actor and all those impacted by the outcomes of the act.
- Practice as contextualized actions in the present results only in *forward movement*: there is no option to undo only to redo from a different basis. Learning is therefore irrevocable, having a developmental or sometimes transformative impact on learners.
- The character of this forward movement is a *vectored* concept in that it has changing meanings of magnitude (significance) and direction (shaped by the choices made by individuals situated in particular contexts) for learners. The event of dropping the bean discards by the apprentice chef, while ultimately having little consequence on the final delivery of that customer's order, has different learning implications for how the apprentice chef or executive chef learns to improve their understandings of practice.

- These 'forward-moving' patterns of practice provide both regularizing and innovative possibilities for future performances. Knowledge of past performances or studying the rules of practice can provide a sense of stability in anticipating likely future actions. Yet every instantiation of practice offers up the provocative possibility for practitioners to choose to deviate from continuing the 'safe' momentum of expected repetition. As Feldman and Pentland (2008) discuss, the juxtaposition of 'routine dynamics' is not as paradoxical as the phrase suggests.
- Such patterns of practice are created as *products of interactions* that are distributed in time and space and among practitioners, having a multiplicative effect as well as combinative effect. It is through such interactions that practitioners develop interrogative capabilities for heedful interrelating (Weick and Roberts 1993). Certain patterns of practice may connect in meaningful tempo-rhythm ways that guide chefs to extend beyond proficiency to demonstrating unique flair or inventing new styles of cooking. Such changes create innovative exemplars and communal benefits for the overall practice. In drama contexts, the artistry needed to cause an audience to care about an authentic character or to appreciate an evocative performance requires actors to 'live in the rhythm [of the performance and their art] not only move [with]in it' (Woodbury 1962: 26).
- Products of interaction highlight the *relational-responsive* nature to the process of engagement (Cunliffe 2008) as they always implicate 'the other'. Fundamentally, practice is founded upon dialogic momentum that signals the rhythmic quality of responses, whether expressed through spoken interaction (Auer et al. 1999), social semiotics (Van Leeuwen 2005), discursive forms of organizational learning (Oswick et al. 2002) or other more implicit forms of practice.

Taken together, these characteristics suggest that learning requires practitioners to sense the current periodicities and underlying rhythms of their practice so that they perform in authentic engaged ways rather than merely participate. Just going 'through the motions' of practice is unlikely to develop a masterchef who shows differentiated culinary flair in ways that invites other co-participants to improve their individual performances or the standards of the practice overall. As Bakhtin observes, 'to think participatively [means] those who know how not to detach their performed act from its product, but rather how to relate both of them to the unitary and unique context of life and seek to determine them in that context as an indivisible unity' (Bakhtin 1993: 19). In forming these patterns of unity dramaturgically, I suggest that the performance-driven movements and shapes can help practitioners learn in material, recognizable and generatively creative ways.

However, as Hager (2008) warns, metaphors can mislead if too much is made of them. In helping to visualize practice as a changing dramatic performance, or to focus research attention on the flows and shapes of practice phenomena, I believe the use of tempo-rhythm is a helpful aid. Yet a limitation is that, as practitioners, we need to remain aware that we cannot simply remove the actor mask and trappings of our assigned character. In practice at work, by taking Bakhtinian (1993) steps forward every day, we commit to live with the consequences of affecting others as they affect us

in unknowable ways. As well, methodologically, we need better visual tools to 'draw' tempo-rhythms as a common research language for discussing these flows and shapes, in ways that enhance research conversations about practice learning and change. The challenge is to represent tempo-rhythms in ways that limit abstraction or simplification or avoid devolving into discussions about the static components of practice.

To summarize, this chapter has used the metaphor of tempo-rhythm to characterize the dynamics of practice as creative and changing patterns of engagement. Practitioners must continuously sense and make sense with others, using the protocols, regularities and routines of practice to demonstrate their practice-based understandings. They look to adapt these enactments for the specificities of their contextual requirements and in negotiation with other practitioners to generate the irrevocable forward momentum. Remaking practice requires rhythmic variations applied spatiotemporally that engage with others in relational-responsive ways. Like evocative dramatic or musical performances appreciated for their pathos and passion, the dramas and music of everyday working life require practitioners to learn the flows of tempo-rhythms that invite engagement with others in meaningful ways.

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# Chapter 5
# Matterings of Knowing and Doing: Sociomaterial Approaches to Understanding Practice

**Tara Fenwick**

## Introduction

'Practice', both as an enactment of and a medium for learning, has been argued throughout this volume to weave knowledge together with action, conversation and affect in purposeful and regularized orderings of human activity. Most educators who would describe their orientation to learning as 'practice-based' would likely agree in principle with Schatzki's (2001) definition of practice as 'embodied, materially mediated arrays of human activity centrally organized round shared practical understanding' (p 2). However, the 'embodied, materially mediated' dimensions of practice tend to remain somewhat under-theorized. What comprises materiality, exactly? How do material phenomena become interlaced in practice, and how do they affect learning and action? What are the architectures and flows of material elements in practice, what force can they exert and how do they change or become reconfigured? The 'embodied' dimension of practice, too, invites closer analysis. What or whose bodies, how are they mobilized and how are they distinguished in practice? What constitutes a 'body'? The purpose of this chapter is to open a dialogue among theoretical conceptions that reclaim and rethink material practice—how *matter* comes to matter in the social and personal mix—specifically in terms of practice and what are the relations of learning to practice.

First, however, let us look more closely at certain under-theorized aspects of practice-based learning in terms of what may be gained through closer attention to materiality. One of these is the different *kinds* of practice that are at play, often simultaneously, in many organized human endeavours such as work activity. These include codified approved practices such as professional standards, everyday

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routines that are collectively recognized but may or may not be codified and adaptive practices such as workarounds and rule bending that are often engaged to make codified practices work. But beyond the more explicit practices comprising a recognized collective activity, there are many practices that are more implicit, practices that are widely understood and that support and even frame the more explicit practices. These include particular knowledge practices of sorting, interpreting, coding, etc., memory practices, tool practices and conversational practices that may be so taken for granted. They are no longer visible, at least until they are specially foregrounded. There are also transgressive practices, of imagination or disruption, that emerge and gain force in entirely different ways. Finally, there are practices through which a practice is assembled, such as literacy practices and particular organizing practices. What diverse material processes, connections, stimuli and forces are at work in generating, expanding and sustaining—or constraining—these multifarious forms of practice?

A second under-theorized issue in discussions of practice is that of *participation*. 'Participation' is prevalent in learning literature as a contrast to 'acquisition' views of learning as cognitive, conceptual and individual. In this representation, participation is often equated unproblematically with activity, or with 'engagement' with an emphasis on 'doing'. Materially speaking, both activity and participation offer different views on the complex transaction of humans and the objects comprising their environments. The relative lack of robust analysis in practice-based learning of the complexities of participation can perhaps help to explain why the concept of 'legitimate peripheral participation' (Lave and Wenger 1991), originally set forth to explain apprenticeship of novices, was so quickly adopted to explain participation in communities more generally—despite the problems of so crudely representing participation-for-learning as a movement from margin to centre. Material considerations of participation foreground not only the material dimensions of human activity and human bodies but also the non-human participants in a practice: texts, instruments, technologies, furniture, weather, etc. What different forms of participation (and partial or non-participation), on the part of both human and non-human actors, are possible in holding together a practice? What forms of participation bring about change or dissolution of a practice? What different modes of participation are linked with different forms of learning? How do different locations of participation, from outside or inside a practice, affect learning? Taken further, the question of participation's relation to practice invites questions about the distinction between a *practice*, the process of *practicing* and the state of being *practiced*: What does it mean to participate in these different modes, and what are the implications for learning?

A third question is about how practice actually becomes *reconfigured* or transformed. The 'community of practice' concept popularized by Wenger (1998) has been critiqued for its inherent processes of reproduction. Once a practice has become stabilized, new adherents are inducted into its routines and objects in ways that do not necessarily enable, or even endorse, transformative energies of resistance, creative adaptations or subversion. The whole orientation of 'practice-based learning', then, could be criticized for promoting what is essentially a highly conservative, a-critical direction where what is valued as the most important knowledge and skill is simply

that which ensures the continued dominance of historical routines and hierarchies. A practice in itself does not necessarily embed the seeds for change, either through innovation or self-critique—or does it?

Theories that specifically trace the material aspects of practice can be helpful in beginning to address such questions. Materiality includes tools, technologies, bodies, actions and objects, but not in ways that treat these as 'brute' or inherently separate and distinct from humans as users and designers. Materiality also includes texts and discourses but not in ways that over-privilege linguistic, intertextual and cultural circulations. Overall, a foregrounding of materiality helps to avoid putting human actors and human meaning at the centre of practice. It avoids treating material things as mere appendages to human intention and design, or as traces of human culture. Among perspectives that seem to be part of this pervasive shift, the material world is treated as continuous with and in fact embedded in the immaterial and the human. Therefore, in this discussion, the term 'sociomaterial' is used to represent perspectives that are argued to form part of this shift.

A range of conceptual and methodological framings foregrounding this sort of sociomaterial analysis and its relations with social relations has commanded prominent attention in the social sciences broadly. In learning studies, three materially oriented theoretical perspectives are particularly prevalent: cultural-historical activity theory or CHAT, actor-network theory (ANT) and complexity theory.[1] The three bear some similarities in their conceptualization of knowledge and capabilities as emerging—simultaneously with material elements, identities, policies, practices and environment—in webs of interconnections between heterogeneous entities, human and non-human. Each illuminates very different facets of the sociomaterial that can afford important understandings related to conceptions of 'learning' and knowledge in practice: about how subjectivities are produced in practice, how knowledge circulates and sediments into formations of power and how practices are configured and reconfigured. However, it is important to note that within each perspective there range a diversity of orientations, strong contestations and lively critical debates which have been discussed at length elsewhere.[2] In fact, more disparity than resemblance may appear evident among the educational studies conducted in the name of CHAT, ANT or complexity. Of course, this phenomenon is not atypical of any theoretical field that expands and diversifies over time and is adapted for various applications: witness the proliferations in education of Marxist analyses, some more relevant or rigorous than others, some directly opposing one other's assertions and some creating downright absurd or simplistic accounts. The problem is the attempt to represent such diversity and critique—a necessarily reductionist and even presumptive activity when any single account such as this will be framed and limited by one author's particular perspective. Indeed, some registers of these perspectives resist representation of any kind, aiming to open questions and sensibilities meant to interrupt authoritative theoretical narratives rather than to erect new ones. Furthermore, this chapter is a very small space in which to unfold such expansive theoretical complexity. The most that may be done is to offer a few introductory comments about each perspective. These are but provisional and partial comments that can only gesture to, rather than explicate, possibilities that may be afforded

through these perspectives. The following discussion, therefore, gestures to the possible insights afforded by CHAT, ANT and complexity for practice-based learning: how and why *matter* matters in processes of becoming and knowing.

## Sociomaterial Perspectives on Practice and Learning

Sociomaterial accounts, what some might call post-humanist perspectives, claim that matter is a critical force in the constitution and recognition of all entities, their relations and the ways they change (or 'learn'). Sociomaterial perspectives not only question the acceptance of differential categories such as individual/organization and binaries of subject/object, knower/known, etc. but also challenge the givenness of fundamental distinctions between human and non-human. The assumption that entities exist prior to their representation is rejected. Instead, inquiry begins by wondering what sorts of material and discursive practices enact entities and their connections into existence. Sociomaterial accounts also examine how the different boundaries separating entities are stabilized and destabilized. The point is not to reify or to focus on 'things'. The point is in fact to contest the notion that things (including objects, texts, human bodies, intentions, concepts, etc.) exist separately and prior to the lines of relations that must be constructed among them and to examine the dynamic process of materialization—including material and discursive practices—through which things emerge and act in what are indeterminate entanglements of local everyday practice.

Humans and what they take to be their learning and social processes do not float, distinct, in 'contexts' of practice that are a background of material stuff and spaces. The things that assemble these contexts, the actions and bodies that are part of these assemblages, are continuously acting upon each other to bring forth objects and knowledge. These objects might be taken by a casual observer as natural and given—as a 'context'. But a more careful analysis notes that these objects, including objects of knowledge, are very messy, slippery and indeterminate. Indeed, some sociomaterial analyses accept the simultaneous existence of multiple ontologies that can be detected in the play of objects. This has enormous implications for understanding practice and the processes of learning.

In such accounts, all entities are understood to be mutually constituted—in their distinct boundaries, properties, directions of action and relations with other entities—simultaneously with the constitution of the dynamic phenomena and events in which they are implicated, within and through the ongoing flux of multiple interactions and connections. As Barad (2003: 817) puts it, 'The world is an ongoing open process of mattering through which "mattering" itself acquires meaning and form in the realization of different agential possibilities'. Different theoretical accounts conceptualize and name this mutual sociomaterial constitution differently. Complexity theory, or at least some versions of it, talks about co-specification where two entities become attracted and, through their association, begin to imitate one another and to link together. A series of dynamic, non-linear interactions produce 'emergence' (Davis and Sumara 2006). This is the phenomenon in (complex adaptive) systems

whereby events and actors are mutually dependent, mutually constitutive and actually emerge together in dynamic structures. Actor-network theory traditionally has talked in terms of 'translation' (Latour 2005), the process by which entities, human and non-human, come together and connect. They change ('translate') one another to form links that bring forth networks of coordinated action and things.

But, ask some, how can matter and material things have 'agency'? Objects clearly don't make choices, don't form meanings, except in the hands of humans. And aren't humans the ones creating all these accounts of objects in the final analysis? Isn't this emphasis on materiality simply attributing human qualities to non-human phenomena, in a long-standing tradition of anthropomorphizing our worlds? The response to these important queries lies in pointing again to the ontology of *assemblage*, of webs of relations, and emphasizing again that the point here is not to isolate and reify the *thing*, as though material 'things' are separate from human beings and we are now attributing intentions and agency to things. In fact, the concept of 'agency' has traditionally been limited by its human-centric definitions associated with intention, initiative and exercises of power. Callon (2005), an ANT commentator, defines agency as 'capacity to act and to give meaning to action'—which enables us to understand agency as collective, relational and distributed. Bennett (2010) draws from sociomaterial theories (ANT and complexity in particular) to show how all phenomena and events can be conceived as 'vital materiality'. Agency is understood as a distributed *effect* produced in material webs of human and non-human assemblages. Agency is possible only through networks/assemblages whereby human desire and interests, for instance, become linked with things like policies deregulating electricity, transmission wires, understaffed power plants, buildings with increased demand for electricity, energy trading corporations and a brush fire—to cite Bennett's example of the massive 2003 New York City blackout. The important issues are not *where* agency is located or what *kind* of agency is human or non-human, but rather the profound *uncertainty* about the nature of action, and controversies about how agency is distributed.

These are some of the themes that appear in accounts of the three sociomaterial perspectives selected for discussion here: complexity theory, cultural-historical activity theory and actor-network theory. It bears repeating that each perspective not only represents a vast diversity of interpretations but that each is also rooted in very different assumptions about the nature of knowing, being, agency and practice. Each also has been used to interrogate what some call 'learning' in 'practice', showing ways to understand diverse kinds of practice, the nature of participation and how practices become reconfigured.

## *Learning as Emergence of Collective Cognition and Environment: Complexity Theory*

What we refer to as 'complexity theory' comprises a highly heterogeneous set of perspectives with origins in evolutionary biology, mathematical fractals, general systems theory, cybernetics and other sources. Educationists who theorize learning

with complexity theory do so in diverse ways, reflecting different traditions of complexity. Perhaps one key contribution of some of these studies is to show how practices become reconfigured, through non-linear dynamics of emergence that are unpredictable and always open to radical possibility.

One central understanding in complexity, at least in many educational and organizational uptakes of complexity theory, is *emergence*. This is the idea that in (complex adaptive) systems, phenomena, events and actors are mutually dependent, mutually constitutive and actually *emerge together* in dynamic structures. That is, the nature of the system as well as its elements and their practices—both human and non-human—emerges through the continuous rich and recursive improvizational interactions among these elements. In Prigogine's terms (1997), in any complex system comprising a practice, the non-linear dynamics at play mean that a series of choices is available at each moment, *to each and every interacting element of the system*, human and non-human. Not only are choices being made by these entities in ways that are not accessible to human consciousness, but also the forces affecting these choices are often not visible, or even present, in the system at any given moment. Among the possibilities emerging at any given time in the system, it is impossible to predict which will *most influence* what will happen next. This is partly because the principles influencing the system's choices for action and knowledge are *not already given* in the system's present patterns or its parts and practices—they emerge too, in the dynamic processes of emergence. Once a choice is made, it is irreversible—because that choice immediately spawns a new set of choice-making activities among entities affected by that choice. Prigogine stressed the importance of both interaction and the presence of large numbers to evoke the phenomena of emergence. Within these masses of interaction, the smaller parts of the system become energized and sensitive to even minor fluctuations. When energy is applied to a system, such as external pressures or amplifications of disturbances within a system, it moves to a state far from equilibrium, when it shifts to new patterns in a series of jumps, not incremental steps. Novel patterns are thus continually emerging in surprising ways that often refute laws of causality. The result is an essential undecidability for practice, for knowledge and for education (Osberg et al. 2008).

In any practice, people constantly influence and adjust to each other's emerging behaviours, ideas and intentions—as well as with objects, furniture, technologies, etc.—through myriad complex interactions and fluctuations. These interactions are recursive, continuing to elaborate what is present and what is possible in the system. In terms of learning, complexity theorist Brent Davis et al. (2000: 74) describe emergence as 'a new understanding of cognition':

Rather than being cast as a locatable process or phenomenon, cognition has been reinterpreted as a joint participation, a choreography. An agent's knowing, in this sense, are those patterns of acting that afford it a coherence—that is, that make it discernible as a unity, a wholeness, an identity. The question, 'Where does cognition happen?' is thus equivalent to, 'Who or what is perceived to be acting?' In this way, a rain forest is cognitive—and humanity is necessarily participating in its cogitations/evolutions. That is, our habits of thought are entwined and implicated in unfolding global conditions.

All complex adaptive systems—forests, weather patterns, stock markets, school districts or groups of students—learn, where learning is defined as transformation that expands the system's potential range of action. Research on HIV-AIDs systems, for example, demonstrates that the immune system remembers, forgets, recognizes, hypothesizes, errors, adapts and thus learns (Davis and Sumara 2006). A traffic system of roads and intersections, car manufacturers and parkades, traffic lights that malfunction now and then and unexpected roadslides that block passage continually adapts and reconfigures itself. Human beings are nested within these larger systems that are continuously learning, and as participants in these systems, humans bear their characteristics in the ways that the single fern leaf resembles the whole fern plant. Learning also could be the sudden jumps in the system's phase states, its transformations, as it experiences disturbances and internal fluctuations that can become amplified. Cognition occurs in the new possibilities that are always opening for unpredictable shared action. Learning is defined as expanded possibilities for action, or becoming 'capable of more sophisticated, more flexible, more creative action' (Davis and Sumara 2006).

These complexity concepts of the materiality of learning are increasingly being applied to professional practice. Haggis (2009), for instance, has shown how professionals might be taught complexity concepts to help them understand the material simultaneities in which they must work, and opening a more flexible, emergent forms of response. McMurtry (2007) introduced a complexity-based approach to interprofessional practice in health care. Practitioners learned to attune to the diversity and interconnections of various elements, including embedded knowledge, in the material practices of different professional domains. Practitioners also learned to apply complexity's nested systems concepts to understand their participation. They developed awareness of how their own actions produced unanticipated consequences in the different nested systems in which their actions were nested: patients and families, system policies, databases and patient charts, interprofessional talk, hospital instruments, pharmaceuticals, community resources and so forth. The most effective collaborations and the greatest emergence occurred, not when large overlaps occurred in different professionals' knowledge, but rather when:

> specialization is allowed and encouraged, and differing professional specializations are brought together into coherent—if not always internally homogenous—collective plants, treatments or 'thoughts' through a different kind of commonality: *trust*. (McMurtry 2007: 91)

Learning to trust in practice is conventionally discussed as an intersubjective phenomenon. The complexity approach as adopted by these educational authors, attuned to the interconnections and disturbances among *non-human materials* as well as to human intersubjective elements, suggests a very different perspective of trust in practice. However, the question remains of how power flows within a system to enact particular entities, positions and rewards, which has been debated at length among critical educational writers (see Fenwick et al. 2011). Power may appear to flow through the system according to how, in everyday interactions, people take up positions and understand others' positions in relation to themselves. We might well ask: What knowledge and activities, among the various relations and processes

occurring within the practices of a complex system, are afforded the greatest visibility and influence over the movements and directions of the system? Whose interests are most advantaged or disadvantaged by the practices that emerge? What subjectivities and what possibilities for alternative subjectivities are made available? And for those influenced by more activist concerns, how can better practices—more generative, open, fair and life sustaining—be induced in a complex system, or at least be available as possibilities? The constructs of complexity, originally emerging from biology, mathematics and cybernetics, do not pretend to address such questions. As Davis and Sumara (2008: 169–170) wryly observe:

> Unequal distributions of wealth and power, argue complexivists, are not only inevitabilities; these are phenomena that are given to self-amplification. Consider, for example the way people aggregate into cities. As insulting as it might sound, the emergent patterns of organization do not depend at all on the fact that humans are doing the clustering. The same patterns show up in colonies of bacteria. In fact, they arise when smoke particles deposit on a ceiling. The rich *will* get richer, the advantaged *will* gain more advantage—not because of intention, but because of the laws of nonlinear dynamics. Such statements are met with knowing nods by complexivists and with indignation by critical theorists.

Overall, however, complexity theory, with its concepts of emergence, non-linear dynamics, nested systems and interaction among large numbers of diverse phenomena, seems useful for analyzing the sociomaterial processes through which a practice or nest of practices emerges and changes. Further, as the educational theorists mentioned here have shown, complexity theory may be useful in assisting participants in a practice to understand its dynamics and elements—both the manifest and the invisible, and to learn to participate with greater attunement, resilience and creativity. Whilst complexity does not attempt to address questions of inequities, hierarchies, exclusions or oppression in social practices, we have many other analytic tools provided by critical social theories to examine political processes. Instead, complexity offers insights into the actual non-linear processes of emergences and nestings that produce, stabilize and help disrupt social and natural entities, patterns and activities, including those that create inequity and oppression.

## *Learning as Expansion of Objects and Ideas: Cultural-Historical Activity*

Cultural-historical activity theory (CHAT) analyzes these ongoing dynamic interactions in ways that show how practices arise and how they can become reconfigured. Engeström (2001), one of CHAT's leading proponents, has formulated an 'expansive' view of learning that shows the system dynamics constituting practices but that, unlike complexity, foregrounds human social processes. Here again, there is significant debate, even different 'schools' of CHAT evident now in its many studies of practice-based learning. Some for example treat Engeström's formulations of CHAT very critically (see Fenwick et al. 2011 for discussion). However, his ideas have become so influential in workplace research that they are worth noting. Derived from activity

theory with Marxist roots, CHAT focuses on activity as the unit of analysis. It highlights the sociomaterial interactions particularly among artefacts, system objects and patterns, individual/group perspectives and the histories through which these dynamics emerged. Material artefacts (objects, tools, technologies, signs) are considered a primary means of transmitting knowledge, for artefacts are understood to consolidate knowledge, mediate social interaction and the negotiation of knowledge and suggest alternative modes of operation (Miettinen et al. 2008). Many CHAT studies examine a system's historical emergences and relations among these material artefacts as well as divisions of labour, cultural norms and perspectives enmeshed in the system: 'how things came to be as they are, how they came to be viewed in ways that they are, and how they are appropriated in the course of developmental trajectories' (Sawchuk 2003). Close attention is given to the system's 'objects' (the problem spaces at which action is directed). Emphasis is placed on the contradictions inherent within organizations, such as the common tension between emphasis on competency and control and injunctions for innovation involving risk and experimentation. When these contradictions become sufficiently exacerbated or questioned through actors' negotiations, 'learning' occurs—where learning is viewed as collective 'expansion' of the system's objective and practices. Thus, CHAT offers insights not only into how practices become reconfigured but about the different kinds of practices holding a system together and how they emerged historically.

From an Engeström-influenced CHAT perspective then, expansive learning is fundamentally a mediated process, explained as the 'construction and resolution of successively evolving tensions or contradictions in a complex system that includes the object or objects, the mediating artifacts, and the perspectives of the participants' (Engeström 1999: 384). As various forms of contradiction are partially or wholly resolved, the system's learning, knowledge, 'objects' and related practices become expanded. Thus, expansive learning involves shifts in the system's activity purposes and processes, in the problems that are framed and the knowledge that becomes visible: It is particularly useful for understanding innovation or the uptake of knowledge creation in organizations (Engeström 1999). What becomes distinguished as novel or useful depends on what problems become uppermost in a particular activity system, what knowledge is valued most there and indeed what knowledge is recognized and responded to by the system elements.

CHAT has been used to show how the boundaries and contradictions inherent in any system of practices are lashed together by material as well as discursive, emotional, political and technological dynamics. One example is a study conducted by Edwards et al. (2009) exploring how multi-professional units (social workers, teachers, psychiatrists, etc.) developed new practices to serve vulnerable youth. The multiple boundaries between their professional disciplines, the agencies and stakeholders involved in their work, and the contradictions of values, regulations and structures of practice inherent in their multi-professional unit, offered important spaces for learning. Practitioners were assisted to first recognize these boundaries and contradictions, to analyze how their own actions, language, texts and objects of practice were implicated in sustaining them, and to find the discursive and material levers for expanding these boundaries and contradictions (Edwards et al. 2009). Edwards and

Kinti (2009) also used CHAT to show how effective practice involves 'relational agency', recognizing the motives and resources that others draw upon in enacting and understanding the 'object of activity' or primary task, and working with them to expand this. That is, practitioners can learn to recognize the categories and values at play in the sociomaterial practices of different other specialists, and the language used by these others to mediate their practices. They can learn to engage with these categories and values of others in processes of negotiating action on a single object.

In another example, Sawchuk's (2003: 21) study of technology learning among workers showed how people's participation in computer learning practices was inseparable from sociomaterial dynamics: 'integrated with everyday life and mediated by artifacts including computer hardware and software, organizational settings, oral devices, class habitus, trade unions, and working-class culture'. He analyzed encounters among participants to reveal how their 'patchwork' of learning opportunities unfolded in informal networks across overlapping systems of activity—on the job as well as at home with the kids, fixing a car with buddies, or struggling in computer labs. The material dynamics of these systems—their artefacts and the histories and cultures embedding these artefacts in practices—are as important as the social dimensions of community, language, routines and perspectives in tracing the knowledge that is produced and the changes in people and practices that emerge through contradictions. These examples are, of course, highly selective and cannot do justice to the vast body of practice-based learning research that has accumulated under the CHAT banner. Some studies focus more on analyzing systems of activity, particularly multiple intersecting systems, revealing how practices conflict and are negotiated. Some versions focus more on understanding the deep contradictions of workplace practices, seeking to show how these embed fundamental oppressions created through the contradictions of a capitalist economy. Other studies are interventionist, working with CHAT approaches to help organizational members analyze and reconfigure problematic practices. Critiques have been levelled at CHAT's sometimes overly formulaic analyses determined by models of triangles, its neglect of emotion and subjectivity in systems and of its failure (in some permutations) to address important contradictions of capitalism. Overall however, CHAT studies have revealed how useful its constructs can be in illuminating how learning is rooted in activity, how boundaries and boundary objects function, how history configures culture and power and how artefacts mediate workplace practices and learning.

## *Learning as 'Translation' and Mobilization: Actor-Network Theory*

Actor-network theory (ANT), claiming its continuing proponents, is not a theory but a sensibility—indeed, many diffused sensibilities that have evolved in ways that eschew its original tenets. Indeed, some writers distance themselves completely from the 'ANT' label even whilst working with ANT language and approaches,

preferring to call their work 'after-ANT' (Law and Hassard 1999) or STS—Science and Technology Studies. Their shared commitment is to trace the process by which elements come together—and manage to *hold* together—to assemble collectives or 'networks' in ANT-ese. These networks produce force and other effects: knowledge, identities, rules, routines, behaviours, new technologies and instruments, regulatory regimes, reforms, illnesses and so forth. No anterior distinctions such as 'human being' or social 'structure' are recognized. In this way, ANT is useful to illuminate different forms of participation in practice—in fact, it shows the limits of notions of 'participation'. ANT approaches can trace the ways that human and non-human energies negotiate their connections and their mutual influences to assemble into some form of practice (or not), that can become extended, or powerful, or contingent, or partial, or prescriptive and so forth. Selected concepts of this field that seem to be most frequently applied to questions of learning, knowledge generation and practice include central notions of the following: *symmetry*—that objects, nature, technology and humans all exercise influence in assembling and mobilizing the 'networks' that comprise tools, knowledge, institutions, policies and identities; *translation*; and *stabilization*—the micro-negotiations that work to perform networks into existence and maintain them whilst concealing these dynamic translations; the processes of *enrolment and mobilization* that work to include and exclude; and the *fluid objects* and quasi-objects produced by networks that perform themselves as stable, even 'black-boxed', knowledge and bodies (Fenwick and Edwards 2010).

ANT takes knowledge generation to be a joint exercise of relational strategies within networks that are spread across space and time and performed through inanimate—for example, books, mobile phones, measuring instruments, projection screens, boxes and locks—as well as animate beings in precarious arrangements. Learning and knowing are performed in the processes of assembling and maintaining these networks, as well as in the negotiations that occur at various nodes comprising a network. ANT studies are particularly useful for tracing the ways that things come together. It can show how things are invited or excluded, how some linkages work and others don't and how connections are bolstered to make themselves stable and durable by linking to other networks and things. Further, and perhaps most interesting, ANT focuses on the minute negotiations that go on at the points of connection. Things—not just humans, but the parts that make up humans and non-humans—persuade, coerce, seduce, resist and compromise each other as they come together. They may connect with other things in ways that lock them into a particular collective, or they may pretend to connect, partially connect or feel disconnected and excluded even when they are connected.

Gherardi and Nicolini (2000) studied practice-based learning among cement workers, using actor-network theory to examine how knowledge is 'translated' at every point as it moves through a system. Safety knowledge was embedded throughout the system: in safety manuals, protective equipment that workers were required to wear and use, signs reinforcing safety rules and inspectors with lists of specific safety practices. However, at each node within this system, safety knowledge was continually being modified or even transgressed. For example, one workman would show another how to change a new safety procedure to make a task easier, or two

together would modify a tool to solve a problem, depending on who was watching, of course. At other points in the system, the crew foreman negotiated the language of the safety assessment report with the industrial inspector. Deadlines and weather conditions caused different safety knowledge to be performed and different standards of evaluation. The equipment itself, and the crew's culture, embedded or 'grounded' a history of use possibilities and constraints that influenced the safety skills performed by those who interacted with the equipment. No skill or knowledge had a recognizable existence outside its use within the sociomaterial networks of the interconnected networks.

Like the other perspectives, ANT has enjoyed its fair share of critique (see Fenwick and Edwards 2010 for a summary). Much of this has opened new questions and directions for ANT—around which 'actors' are being studied and which are being excluded, about the problems of humans representing human/non-human heterogeneity, about the limits of a 'network metaphor' and about questions of human meaning and subjectivity. A few have critiqued ANT for not addressing issues of power and politics particularly in workplace practice and knowing-in-practice. This position indicates a fundamental misunderstanding of ANT's basic premises and approaches, at least those explained at length and demonstrated empirically by its leading commentators: Bruno Latour, John Law, Michael Callon, Anne-Marie Mol, Vicki Singleton, Kevin Hetherington and many more. For analyzing politics and policy in educational research, Jan Nespor (2002: 376) argues that ANT raises important questions about 'how and in what forms people, representations and artefacts move, how they are combined, where they get accumulated and what happens when they are hooked up with other networks already in motion'. ANT analyses not only trace the shifting locus of power, how different actors are dominant at different times within different networks but also expose the nuances and ambivalences within this performance of power. ANT's methods begin by following the ways human and non-human capacities become gathered, and stabilized, into patterns that exert power. Its approaches examine closely all the political negotiations and their effects that occur in these gatherings and orderings. In doing so, ANT shows how the entities that we commonly work with and often take for granted as categories in workplace practices, many of them deeply entrenched and continually recreating inequities, are in fact assemblages of myriad things that govern practices. These assemblages are usually precarious and require a great deal of ongoing work to sustain their linkages. ANT points to how such assemblages can be *unmade* as well as made, and how counter-networks or alternative forms and spaces can take shape and develop strength. As Latour (2005: 261) argued, ANT's political power is 'to highlight the stabilizing mechanisms so that the premature transformation of matters of concern into matters of fact is counteracted'.

## *Discussion: Sociomaterial Perspectives of Learning*

All three perspectives—complexity theory, cultural-historical activity theory and actor-network theory, whilst deriving from wholly different premises and each

representing a contested world of interpretations—bear some commonalities. First, all three take the *whole system* as the unit of analysis, appreciating human/non-human action and knowledge as entangled in systemic webs and acknowledging the processes of boundary making and exclusion that establish what is taken to be a 'system' and its 'elements'. Second, they all focus on closely tracing the formations and stabilization of elements—all bodies including knowledge—that are produced, reinforced or transformed by subjects that emerge with/in a particular activity. That is, they all trace *interactions among non-human as well as human* parts of the system, emphasizing both the heterogeneity of system elements and the need to focus on relations, not separate things or separate individuals. Third, they all understand human knowledge and learning in the system to be embedded in *material action and interaction (or intra-action)*, rather than focusing on internalized concepts, meanings and feelings of any one participant. In other words, they do not privilege human consciousness or intention but trace how knowledge, knowers and known (representations, subjects and objects) emerge together with/in activity.

More perhaps than the other perspectives, complexity theory in its various interpretations appears to offer a rich analysis of the *biological* (as well as social, personal, cultural) flows inherent in practices. Its constructs can examine the materialization processes through which particular patterns, ideas and events are produced, the elaborate intertwining of human/non-human elements and the non-linear simultaneous dynamics and conditions which produce *emergence*. The 'system' in complexity theory is typically viewed as an effect produced through self-organization via these dynamics and is continuously adaptive, so studies are able to model system patterns in various scalar spaces as they interact, shift and change. Knowledge (e.g. new possibilities, innovations, practices) emerges along with identities and environments when the system affords sufficient diversity, redundancy and multiple feedback loops. Diversity is not treated as something to be 'managed' towards producing greater homogeneity, as some approaches to workplace learning might advocate, but to be interconnected. In elaborating this point, Davis and Sumara (2006) explain that difference in an identified system needs ways to become visible—the conditions must enable the enactment of difference—which it often is not. As diverse elements become enacted, they must also be able to interconnect through overlap. In classrooms or organizations, emergence can be enabled where there is diversity and constraints (purposes and rules of engagement) through amplifying difference and perturbations, decentralizing organizing processes, encouraging continuous interaction and ensuring ongoing feedback among various elements/sites.

By contrast, in many versions of cultural-historical activity theory, organizations are viewed as sites of central contradictions and ideological struggle between those who control the means of production and those whose labour and knowledge are exploited. These are the Marxist roots of this theory, although it moves well beyond binary conceptions of organizations as sites of class struggle between dominant and oppressed groups, where 'learning' is conceived as either reproducing given power relations or transforming them through collective politicization and resistance. The Marxist notion of systemic 'contradictions' is central to CHAT, and individual perspectives and interests are constantly at play in negotiating these contradictions. In these features, CHAT retains a more human-centred orientation than either

complexity or ANT. Non-human 'artefacts', for example, are portrayed as bounded, distinct from humans. Whilst embedding their own cultural histories, artefacts are relegated to the role of mediating human activity. CHAT also foregrounds a socio-political analysis of human activity, including constructs such as 'division of labour' and 'community' (and even social class, prominent in many CHAT analyses), which is anterior to the emergence of elements that may or may not comprise a 'system'. However, CHAT affords a rich approach to analyzing precisely these political dynamics that are so important to practices whilst insisting that these dynamics intermingle the material with the social. Complexity theory can only address the political through severe (and some would argue inappropriate) stretching of its constructs. CHAT also theorizes the historical emergence of the sociocultural material in activity systems in ways that complexity theory cannot.

ANT approaches have been compared to CHAT although they share little in their ontological assumptions (for an extended comparison from an activity theory perspective working with early ANT accounts, see Miettinen 1999). ANT (including the many *after*-ANT commentaries) offers the most radical material challenge to understandings of learning, practice and organization. When anyone speaks of a system or structure, ANT asks: How has it been compiled? Where is it? What is holding it together? All things are assemblages, connected in precarious networks that require much ongoing work to sustain their linkages. ANT traces how these assemblages are made and sustained, how they order behaviours as well as space and objects but also how they can be unmade and how 'counter-networks' or alternative forms and spaces can take shape and develop strength. ANT has also challenged the tendency to seek 'relations', showing that the relative stability of certain networks occurs not through their coherences but through their incoherences and ambivalences. ANT commentators play with scale and reject dualisms of local/global or micro/macro. There are no supra-structural entities, explains Latour (1999: 18), because 'big does not mean "really" big or "overall" or "overarching", but connected, blind, local, mediated, related'. ANT also shows how knowledge is generated through the process and effects of these assemblages coming together. ANT offers us, finally, a way to challenge notions of 'learning' as a process occurring in individuals' conscious minds. In ANT, all things are network effects: a concept, a text, an organizational routine or breakdown, an oppressive regime, a teacher, worker or manager. In fact, any thing or human being, human intention, consciousness, desire, etc., emerges and oscillates through various translations at play in material network effects, sometimes appearing simultaneously as multiple ontologies. ANT focuses on the circulating forces and minute interactions that get things done through the networks/*assemblages* of elements acting upon one another. As Latour (2005: 44) wrote:

> Action is not done under the full control of consciousness; action should rather be felt as a node, a knot, and a conglomerate of many surprising sets of agencies that have to be slowly disentangled. It is this venerable source of uncertainty that we wish to render vivid again in the odd expression of actor-network.

In terms of understanding practice and practice-based learning, a key contribution of all three perspectives is to decentre the human being in conceptions of learn-

ing, activity and agency. All three trace how disparate elements—human and non-human—emerge in webs of activity and become linked into assemblages that collectively exert power. The question of *kinds* of practice, and of distinctions between 'practice' and 'practicing', is tied up with different processes of materialization and material assembly. The question of *participation* in practice is broadened far beyond a focus on personal and social engagements to trace how things themselves participate to produce and sustain practices, often in ways either overlooked by humans or assumed to be controlled by humans. But when we begin to appreciate how a confederate agency of things participates in ways such that human action and intention are interlinked but not central, we can see multiple networks of influence upon any given encounter. Encouraging human participation, then, becomes far more a matter of attunement to things seen and unseen, a sensibility to what may be far-reaching consequences of the tiniest human intervention, a sense of building relations and understanding delicate responsibilities, than a brute assertion of human intention and control. Finally, the question of how a practice becomes *reconfigured* or transformed is addressed by each perspective at the nexus of sociomaterial connections. With their diverse emphases on emergence, translation and expansion, these theories each conceptualize change as a series of complex negotiations at micro-levels setting in motion complex dynamics that reconfigure systems. Importantly too, each of these theories shows the interplay between stabilization and dynamism. That is, they show both how practices become fixed and durable in time and space but also the way in which disordering elements and disequilibrium emerge to enable radical new possibilities. These sorts of analyses are particularly helpful not only in understanding just how practices can change but also in distinguishing among kinds of practices that play different roles in stabilizing or disordering a system, in making connections or amplifying disturbances and in attuning to ambivalences and uncertainties—the openings for unknown possibilities.

## Endnotes

1. Of course, these perspectives are only a few of the myriad treatments of materiality that have emerged in social sciences. Important theories such as critical realism, sociologies of technology, new cultural geographies, post-representationist theories, post-humanist theories, some queer theories, feminist theories particularly those treating sexuality and the body, some Feminist-Marxist theories and so forth are all developing fruitful insights for conceptualizing life and practice as sociomaterial. However, the three perspectives chosen for discussion here, at least at the time of writing, appear to have become particularly influential in studies of work, organization and learning working with concepts of practice.
2. Important critiques—and responses—have been generated as these theoretical conceptions have proliferated in a range of uptakes across the social sciences, including education and organization studies. Issues of subjectivity, ethics, dangers of totalization and formulaic models, researchers' presence, representation of absence and multiplicity, etc., have been widely debated within each conception. Whilst such debates cannot be addressed satisfactorily in this brief overview, interested readers might consult resources such as Sawchuk et al. (2005), *EPAT* (2008) (special issue on complexity and education), Osberg and Biesta (2010), Law and Hassard (1999), Fenwick and Edwards (2010) and Fenwick et al. (2011).

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# Chapter 6
# A Return to Practice: Practice-Based Studies of Education

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## Introduction

Social theory considers the relevance of the concept of 'practice' in grasping the nuances of social fabrication. Contemporary theory has recognised a 'practice turn' as the possibility of overcoming the traditional dualisms in many disciplines (anthropology and philosophy, history and technological studies, etc.) (Schatzki et al. 2001). Recently, by focusing on practice, organisation studies have reopened and restructured a notable set of themes including the analysis of learning and knowing in organisation (Gherardi et al. 2003; Gherardi 2006; Miettinen et al. 2010), the study of the process of strategising (Jarzabkowski et al. 2007) and the analysis of structuration of information and communication technology in organisation (Orlikowski 2000). In the field of education, the concept of 'practice' is indeed relevant to notable theoretical 'ancestors': ethnomethodology (Mehan et al. 1986; Coulon 1993; Hester and Francis 2000), symbolic interactionism, the anthropology of education, the Bourdieuian approach to education, and post-structuralist studies of education. The relevance of the concept of practice for education has been reconfirmed in publications with a prevalent philosophical approach and references to MacIntyre's contribution (Dunne and Hogan 2004) as well as to the work of Ludwig Wittgenstein and Charles Taylor (Smeyers and Burbules 2006).

This chapter proposes the theoretical relevance of a critical return to practice in the field of education by engaging with the 'practice turn in contemporary theory' (Schatzki et al. 2001). This 'return to practice' is presented to counter the prevalence of a simplistic techno-rational account of educational practice reinforced by instrumental views of lifelong learning and by the increasingly dominant evidence-based policies and research that tend to reduce the space of education to output-driven logics

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of learning (in postmodern language, by assuming the principle of 'performativity' and favouring the emergence of performative identities). The difficulties of translating 'lifelong learning' into practice – because of the totalising approach that has tended to accompany that conceptualisation (Gewirtz 2008) – are leading to the prevalence of neoliberal educational interpretations and policies accentuating an instrumentalist ('learning to live') and output-oriented account of education practice. A number of examples of this trend may be seen: in the increasing pressure for standardisation and homogenisation in education, mainly triggered by the concerns of international surveys and exercises of evaluation carried out by the Organisation for Economic Cooperation and Development (OECD) and International Association for the Evaluation of Educational Achievement (IEA), for example, the notable debate around projects like the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMMS) and the relevance of those instruments for the convergence of educational policies and discussions (Lundahl et al. 2010); educational restructuring as a world movement (Lindblad and Popkewitz 2004); and the growing determination (almost a terror, see Ball 2003) to achieve educational performance by measurable educational results. This trend serves to discredit those forms of investigation and modes of knowledge that consider in a reflective way the possible effect of commodification of knowledge with their overemphasis on the logic of performativity. Finally, there is a tendency visible in most of those countries embracing lifelong learning rhetorics and policies in accepting a credentialist agenda, that is, the argument that national competiveness may be strengthened by supporting the acquisition of skills and certified competencies, improving the possibilities of present and future employability (the force of this discourse may be found in EU and UK contemporary educational documents, see e.g. Guile 2003, and see Kuhn 2007, for other countries).

These perspectives risk conveying entirely unproblematic accounts of educational practice and of under-theorising the complexity of educational practice. Following the rich and plural theorisations and empirical accounts of practice throughout this volume, this chapter illustrates rather how the 'return to practice' may enrich the understanding of the complexities of education and challenge the dominance of evidence-based research in education as well the politics of representation of lifelong learning that is oriented towards the logic of accountability and performativity. It may help in considering the everyday practice of education, without assuming at the same time – as it may appear in the classical definition of education as 'initiation to practices' – the conservative view that privileges reproductive accounts of teaching and learning and the dominant values attached to practices by those in dominant positions of power relationships (Smeyers and Burbules 2006).

This chapter suggests three possible trajectories of reflection and research to highlight the fruitfulness of such reconsideration: the body and sensible knowledge for aesthetic understanding of learning and knowing, the sociomaterialities of education and analysis of local orders of education and training. Those trajectories – while not excluding other possible subjects of investigation – are intended to subvert some of the mechanisms of silence which inform the rhetoric of lifelong learning and to suggest new insights into the complexities of the work of education. This chapter unfolds as

follows: it starts by analysing the dominant reductionist vision of lifelong learning (and practice) in contemporary societies; it considers, then, the main characteristics of the practice turn in social theory and in practice-based studies of learning and knowing in organisations; it explores the effect of the return to practice-based studies of education along three trajectories of investigation; and it finally considers the limits and the difficulties of this theoretical position.

## Lifelong Learning and Performativity as Conditions of the Practice of Education in Contemporary Societies

### *Instrumental Discourse of Lifelong Learning*

The perspective of lifelong learning is a core aspect of many policies of contemporary societies. Lifelong learning is, of course, a cornerstone of the policies of education and training in a range of countries. Although its importance is possibly overemphasised, lifelong learning is still considered the answer to many issues and demands posed by life cycles, families, leisure time, labour markets, organisations, etc. This perspective produces conformity and accompanies a process of dedifferentiation of the sites of learning (Edwards 1997). The difficulties of establishing a definition for the very notion of lifelong learning, however, mean that we have to address implementation issues which are not easily resolvable. Lifelong learning does not readily translate into specific policies and seems not to suggest immediate ways of putting those policies into practice. Lifelong learning is a concept that appears in practice to raise more problems than expected (Field 2000). Still, the notion of lifelong learning has a rhetorical strength since it feeds the production of persuasive texts in policy realms (Edwards et al. 2004) and might be viewed as a successful label that, in the form of a quasi-object and by constituting a truth regime, is able to transport ideas and cultural fashions (Czarniawska-Joerges and Sevón 1996). Diverse typologies have been delineated of how lifelong learning has unfolded in several partly overlapping discourses, in parallel with diverse versions of the learning society (educated society, learning market and learning networks, (Edwards 1997)); however, many scholars agree that the dominant discourse (and also the set of the most diffused practices) establishes a strong association, almost of subordination, with the socio-economic dimension of learning (and knowledge).

### *The Culture of Performativity*

The culture of performativity – a principle that defines a proper feature of the postmodern condition (Lyotard 1979; Ball 1998) – implies effects of simplification regarding (a) the learning culture, which tends to emphasise performances and outcomes (Magalhaes and Stoer 2003), and (b) the same theoretical reflection in the

lifelong learning field crossed by winds of reductionism, which tend to make less complicated the relationship between theory and practice and to propose a simplistic, one could even say rough, version of the same notion of 'practice'. Lifelong learning – as documented through policies and studies on practice – seems to translate into an accumulation of skills and qualifications supported by a behaviouristic and adaptive theory of learning (Edwards et al. 2002). Here, it emerges as a lack of balance between performance and learning, and we have a dominance of economic concerns. That perspective considers knowledge as the object of knowledge management, learners as a set of knowledge and competencies, and learning as the unproblematic acquisition and possession of knowledge and practices. In particular, knowledge detaches from interiority and becomes – like money – an object that can flow and travel easily, regardless of the places and the individuals contributing to its production (i.e. we have here essentially what Freire defined as 'the banking model of education', 1971). At the same time, the one-sided focus on the value of performances and measures of learning is accompanied by the renewal of a scientistic attitude within educational studies. This latter attitude tends to background the importance of anthropological and qualitative research in favour of evidence-based research that grounds its legitimacy on practice or, in other words, on a 'what works' principle, namely on what positivistic research can provide in terms of solutions to meet the demand for better educational practices (St. Pierre 2006; Dirkx 2006). This reference to 'evidence' is clearly simplistic and does not problematise what passes for 'evidence' according to different epistemological views, not to mention the many aspects of science making and their respective rhetorics.

## *Simplistic View of Education Practice*

The instrumental discourse of lifelong learning, and the prevalence of the culture of performativity, tends to impoverish the depiction of the practice of education and to favour (and accordingly to enact) the development of education practice as 'evidence-based practice'. While the idea of 'evidence-based practice' appears to be attractive for those interested in improving education practice, it conveys a non-neutral view of professional practice that looks hardly appropriate for understanding the field of education. It implies a *causal model of professional action* that attributes a notable relevance to effectiveness, that is, to the 'what works' principle, and a *technological conception* by means of which we may have the reduction of the notion of 'practice' to a purified and transparent technical-rational dimension, and a clear separation of means and ends, by subtracting the discussion about the ends of education and by concentrating on what may be the most effective ways to achieve those ends (Biesta 2007).

This view is typified by the search for 'best practice' in education, here defined as a set of universal norms to be found and applied without taking into account the specificity of the sites where those practices emerge and are consolidated. This quest for 'best practice' underestimates the difficulties of imitating and diffusing

practices, ignores their opacity and does not address the challenge of translating a practice from the place in which it is embedded to the place of destination. In a later section ('Education as Situated Work'), we will see how a return to practice implies the acknowledgement of both the relevance of the actual sites of education, that is, the importance of the embeddedness of education in a sociomaterial space (a context) as well as the relevance of embodiment in education practice.

This simplistic way of understanding education may be contrasted with a reconsideration, and a complexification, of the description of education as practice. In that respect, an interesting vocabulary is being developed within the practice turn in social contemporary theory and practice-based studies of knowing and learning in organisational studies. In the next section, I will briefly review some aspects of the return to practice in social theory and organisation studies, and then I will draw attention to those conceptualisations that may help in countering the current dominant discourses of education.

## The Return to Practice in Social Theory and Organisation Studies

### *Practice Turn in Social Theory*

Contemporary social theory has taken a decided practice turn through its renewed interest in the concept of 'practice' (Schatzki et al. 2001). 'Practice' (and 'practices') is (are) considered the primary material of social life by many scholars from different disciplinary backgrounds (including philosophy, anthropology, psychology, sociology, cultural theory and studies of science and technology). It is not, of course, an absolute novelty, but probably a return, since practice is fundamental to diverse scholars like Dewey, Heidegger, Taylor, Marx, Foucault and Wittgenstein, who in different ways open through 'practice' a conceptual space to take a position against abstract and dualistic theoretical perspectives. In sociological theory, researchers with diverse views refer to practice to get a detailed understanding of the processes of (re)production of social ordering. It is possible to mention Bourdieu's theory of social practice (1980) and the fine-grained analysis of the practices of reproduction in schooling (Bourdieu and Passeron 1970), Giddens' structuration theory (1984), Garfinkel and the many contributions of ethnomethodology (1967) and Foucault and Lyotard's cultural analysis on language as discursive practice.

### *Practice as Epistemic-Normative Construct*

The trajectory of practice-based studies in organisations is of particular interest for illustrating the features of this practice turn. Practice-based studies have contributed

to the practice turn by providing empirical cases in which to ground reflection. In organisation studies, the label 'practice-based studies' spreads quickly, giving rise to a plethora of research and interpretation (Corradi et al. 2010). This expansion has been activated, on the one hand, by the impact of the situated theory of learning (Lave and Wenger 1991), that is to say, a place where anthropology and educationalist studies meet to propose a reading of learning that is both anti-individualistic and non-cognitivist. On the other hand, it was supported by the growing interest, within organisational studies and then in knowledge management, of the successful notion of 'community of practice' (Lave and Wenger 1991; Wenger 1998). This notion – particularly through a one-sided emphasis on 'community' (Landri 2007; Gherardi 2006; Barton and Tusting 2005) – has been considered as intellectual technology of the coming knowledge society, that is, a practical way of knowledge management within the new conditions of flexible capitalism (Gee 2000). The exploration of the promise of 'practice', the other pole of 'community of practice', has inspired studies and analytical interpretations to take off in many directions. Of particular interest, here, are those studies that consider practice as an *epistemic-normative* concept (Geiger 2009; Gherardi 2009). In that respect, practices are not simply 'arrays of activities' or 'what people actually do' (as in those analytical approaches to practice where it is difficult to differentiate 'practice' from 'routine') but 'ways of doing things together' (Rouse 2001; Gherardi 2009). In privileging the latter position, practices are considered as normative constructs that temporarily order the social world and contribute to the reproduction of the norms of particular groups or of society by their practicing. The passage to a conceptualisation of practice as an epistemic-normative construct implies a movement from the 'what' question – what is 'inside' practice – to the 'how' question which draws attention to how a practice is practised and in particular to (a) how a practice becomes a practice, (b) how a practice relates to other practices and (c) what the effects are of practising a practice (Gherardi 2006). By considering this view, practice-based studies in knowing and learning in organisations develop and favour critical emerging discourses with respect to positivist, rationalistic, cognitivist ideas of knowledge, learning and working in organisations. Also, it privileges a relational epistemology whereby the social is not conceived in static terms, like a substance, but in a dynamic and emergent way so that subjects and objects, the material and the social, are emergent and ongoing effects of the field of practice. In the following section, I will consider what could be the effect of a return to practice and in particular to the practice of education analysed as epistemic-normative construct.

## Education as Situated Work

Education in broader terms configures modes of intervention in others' lives and ways of moulding humanity (Biesta 2006; Varenne 2007). Here, I will consider more specifically education as 'initiation to practices' (Smeyers and Burbules 2006). It is a classical definition, and I will discuss in the next section how to retain that

definition without assuming a conservative view that stresses the reproductive functions of teaching and learning. I will start by considering that education is about learning practices (like reading, writing, child rearing, etc.) that make other things (and I may add the practices of lifelong learning) possible. A practice-based perspective brings to the fore how education is enacted, and particularly the situated work of education, normally neglected in the dominant discourses of lifelong learning. I will concentrate in the following on three silences in the prevalent account of education: the *bodies and sensible knowledge*, the *materialities of education* and the *performance of moral orderings*.

## *Bodies and Sensible Knowledge*

In many descriptions of lifelong learning and in different accounts of the dynamics of functioning of education in schooling but also in many analyses of organisational performances, bodies are in the background: the scene is dominated by mental entities, beliefs, cognitions, and desires. The cognitive dimension occupies analysts' concerns almost completely, which has the effect of devaluing knowledge of the senses (sensible knowledge). The body is, on the contrary, of great interest to practice theorists since they describe embodied human activity as know-how, dispositions, skills and tacit knowledge. Moreover, most of the definitions of 'practice' insist on tacit, implicit aspects to draw attention to the situatedness of practice in embodied knowledge. Body is, in fact, constituted in the field of practice. This theme has, of course, been raised and explored by Foucault (1976) and by Bourdieu (1980). In particular, the concept of disciplinary power for Foucault displaces the analysis from mechanisms of power at the level of macrostructure to the level of bodies, that is to say, on disciplinary practices of bodies that can have productive and not necessarily repressive effects (Gore 2001). In Bourdieu, the habitus is a set of dispositions that are relatively stable and linked to a social trajectory and a social position that are incorporated – through mechanisms which are not consciously recognised – into modes of behaving and presenting (the bodily 'hexis') by each individual and give the illusion of choice. The issue of 'body' is at stake in feminist theories (Haraway 1991; Butler 2004.) and in those theories drawing attention to embodiment and learning, as in social studies of technology and society. In many cases, however, the lens of practice has been used to reveal the dynamics of domination, contributing, instead, to supporting an illusion of choice. The work of education, from that perspective, sometimes appears dependent on social forces 'behind individuals', and lifelong learning can be considered an illusory game which hides the presence of practices of disciplining bodies along the line of flexible capitalism and globalisation. A different view, instead, draws on embodiment, that is, on understanding how body is not a given object but is continuously emerging through ecologies of knowing and learning practices that tentatively try to stabilise the boundaries of the body. Particularly interesting is research about embodiment with reference to the new technologies of information and communication and more generally with reference

to the production of knowledge and learning within virtual worlds. Here, the body and bodies are not only objects of moulding; rather, they are actively engaged in education, playing a role not merely reproductive of non-local dynamics. The productive role of bodies leads us to explore the issue of sensible knowledge, that is to say, knowledge that develops, produces and reproduces through the senses. Sensible knowledge follows different pathways from cognitive or intellectual knowledge. It is fed by perceptive-sensory faculties (sight, touch, smell, hearing, taste) that help to articulate aesthetic judgements. Those themes developed by embodiment theorists (Csordas 1994; Merleau-Ponty 1945), have influenced educational theory (Gardner 1993) and could be further explored in developing the analysis of the work of education in different sites. Examples of studies trying to address these aspects within a return to practice include the following. Strati (2007) analyses the relationship between sensible knowledge and practice-based learning, that is, how the process of learning and developing knowledge in and of organisation happens with hands, feet, and ears and how the aesthetics of organisations is in a dialectical relationship with emotions and knowledge of a cognitive type. The field of haptic learning and of haptic education (see Candlin 2004) help to provide a complex view of education by challenging ocular-centricity which is a dominant presupposition of most of the ordinary studies of learning and knowing in many sites.

## *Materialities in Education*

The issue of embodiment, and in particular of bodies acting through materials and of different forms of objectivation, leads us to acknowledge the role of materiality in education. A practice perspective suggests understanding the contribution of non-humans to the work of education. Activity theory, actor network theory and complexity theory underline, albeit in different ways, the co-construction of subjects and objects in networks of agencies. ANT, in particular, recalls how social theory has often forgotten the missing masses, in other words, the contribution of non-humans (objects, technologies and artefacts) and their effects within the process of social orderings (Fenwick and Edwards 2010; Sørensen 2009). This is a relatively underexplored side of the traditional studies of education. The worldliness and the triviality of objects of schooling and education play a minor role, however, with respect to the myth of education, as meta-narration of modernity. Similarly, analysis of the policies of instruction, as well as of lifelong learning, does not pay much attention to objects in human agency. In some respects, such an interest might be considered unuseful or an almost frivolous curiosity. Practice-based studies are in a better position to address the issue of the mutual constitution of objects and subjects in education. In that context, it should be possible to develop a biography of educational objects in order to describe, from another perspective, the mode of functioning of educational sites. Some attempts in that direction can be found in Nespor (1994, 1997), McGregor (2004), Lawn and Grosvenor (2005) and Sørensen (2009). By assuming a historical perspective, Lawn and Grosvenor analyse the

materiality of schooling in order to understand how objects like pencils, seats, benches, books, spaces and buildings become consolidated. These objects have a proper story, they have been inserted into dynamics of innovation, then become relics of past practical organisation of learning and knowing in schools and then are transformed into objects to be displayed in museums. They can be considered items of intellectual technologies, that is to say, relevant elements of pedagogical *dispositifs*. The institutionalisation of state schooling has been accompanied by the introduction of new objects and tools as well as new subjects and new pedagogical methodologies. Lawn (2005) describes the increase of objects in lessons at the beginning of 1900 because of the diffusion of pedagogical *dispositifs* in Pestalozzi's methods. Likewise, Derouet (2000), following actor network theory, describes the complex configuration of humans and non-humans in French schools within a set of particular policy changes. If a focus on the ordinary objects of schooling has the effect of bringing to the fore what is usually considered the infrastructure of the practices of learning and knowing, the question of the materiality of the work of education is, on the contrary, clearly visible in those studies as regards the use of technologies of information and communication. In an attempt to produce a sociology of e-learning, I have tried to elaborate an interpretative scheme for analysing the construction, the stabilisation and the effects in terms of reshaping the social landscape which the new technologies of information and communication seem to imply (Landri 2009). If e-learning is seen as a form of networked sociality (or as a digital formation), it is possible to analyse its fabrication in three dimensions: (1) the materiality of sociality, (2) the imbrications of the social 'outside' the Internet and the electronic space and (3) the mode of attachment to what has been called 'virtual'. Here, by focusing on materiality, it is possible to see how the work of education is mediated in practice by objects, technologies and infrastructures. In particular, it raises a set of questions concerned with (a) how the mediation of objects implies an increase in the capacity for action and contains possibilities in terms of practices of learning and knowing, (b) how the delegation to objects and technologies leads to complex restructuring of education sites and (c) how the work of education comprehends complex configurations of subject and object networks.

## *Local Orders of Education*

The lens of practice reveals the complexity of the organisational texture of education, within which it is possible to grasp the intertwining among the cognitive, aesthetic and political dimensions, together with the materialities, through the dynamics of embodiment and objectification. Moreover, the analysis of practices can help the investigation of the normative side: the complex organisation of education as work refers to a mode of ordering as well as a morality which comprehends inclusions and exclusions. The exploration of this aspect leads us to see how practising a practice has effects, both intentional and unintentional. This line of investigation permits us to analyse the 'morality' of a practice and its contribution with respect to the exercise

of open forms or authoritarian modes of power (Clegg 1989). Here, the philosophical debate is particularly rich on the relationship between education and practice and sets the scene for addressing the ethics of practising the work of education. For Dunne and Hogan (2004), the defence of the integrity of teaching and learning as practice is a way to safeguard cultural education from attempts at reducing learning and knowing by the instrumental logic of modernisation. This perspective represents a resource for proposing a vision of the practice of education as moral activity (a way of life), rather than that perspective, seen for example in MacIntyre, who considers teaching a set of skills and habits within any kind of practice. Teaching, then, becomes a way of accompanying practitioners in unfolding practice and, in particular, in accomplishing and/or discovering goods and virtues for its realisation. Studies drawing attention to this topic usually follow and reveal an oscillation between two tendencies: on the one hand, some studies analyse the local order of education as a mirror of the moral order of wider social context (see, e.g. Beach 2003), and on the other hand, other studies explore these aspects as situated within local educational orders. The practice turn in social theory invites us to favour this latter orientation and looks at the situated condition of the emergence of a morality. Examples of this kind of approach include ethnomethodological studies which consider the radical reflexivity of the work of education and the presence of the practice of accountability in classroom activities (Freebody and Freiberg 2000). Elsewhere, I have tried to describe the accomplishment of a local educational order – a situated circuit of schooling (Landri 2008). This order reflects the cultural ordering of a field of practice and, accordingly, a situated morality of inclusions and exclusions. The circuit of schooling I described is intended for 'awkward students', that is, for students who in compulsory schools were classified as 'difficult and low achieving'. The accomplishment of the local educational order, in this case, implies silence concerning and, in a notable number of cases, the sacrifice of students (to a greater or lesser extent). In other words, the benefits for some students are paid for by the elimination of other students, that is, the former can start improving their knowledge repertoire inasmuch as a number of students even more 'awkward' decide voluntarily or unintentionally to give up on school. In both cases, the studies try to document the complex socio-technical machinery which locally allows the production of educational orders. In particular, it draws attention to the network of associations making up the ordering effect as well as the moral practices of justification by preventing reference to the dynamics of social forces which operate behind the scenes. The acknowledgement of this normative dimension leads to problematisation and seems to solicit a renewed reflection on the practice of the educational researcher. In a reflexive way, it is recognised how the research is not 'outside', but the possibility of researching implies a practice of engagement performing diverse morals of educational research, more or less participatory. In this way, the engagement can suggest the performance of research practices oriented towards the unfolding of critical pedagogies, or promote forms of evaluation of education trying to address 'goods' and 'standard of excellence' of this practice, without demoting practice to a bundle of routines aimed at accomplishing different objectives in a rational-technical frame (Schwandt 2005).

## Discussion

I have described so far how the return to practice represents a useful instrument to produce a more complex vision of education as situated work. In particular, the reconsideration makes visible how education as work allows the emergence of aspects and raises cognitive, political, aesthetic, normative, political and material questions barely addressed within the reductionist dominant conception of lifelong learning in contemporary societies. In this section, I will draw attention to (a) what is required in order to make the shift to a complex conceptualisation of education practice and (b) how to keep the definition of education as initiation to practices without endorsing the conservative views such a definition often carries with it. I will discuss and underline two conditions: a *practice sensitivity* and the shift from an analytical approach to an *epistemology of practice.*

## Practice Sensitivity

Practice-based studies often present the notion of practice in terms of a visual metaphor: the 'lens'. The use of the term is developed through verbs referring to vision and suggesting a process of unveiling, the reversing of dynamics that tend, on the contrary, to make marginal or without influence significant elements of education. In some respects, this metaphor seems to support the ocular-centrism of the theory, that is, the tendency to focus on the rational-intellectual side of this collective endeavour. Moreover, in many practice-based studies, the reference to 'practice' seems to point almost to an ultimate, realistic, descriptive and definitive level to be considered 'concrete', 'full' and 'objective' in opposition to other accounts classified as 'scanty', 'simplistic' and 'unrealistic'. In other words, there is sometimes, in these accounts, the sense of a 'reality' that researchers can grasp. In practice-based studies, there is the risk that we consider 'practice' in a positivist frame, as in the search for 'best practice', or when it is clear that the term 'practice' is used as a synonym for 'routine'. One way to handle this risk is to acknowledge how our understanding is inevitably mediated by language. A complete answer, however, should include the consideration of practice-based studies within a constructivist epistemology. The reference to constructivism deserves, here, some clarification and discussion. By supporting a constructivist position, practice-based studies are not aimed at unveiling the work of education as false, or an illusion, but rather at illustrating the complexity of its construction, the multiplicity of the elements contributing to its accomplishment and the efforts, the mobilisations and the ecologies of association for supporting it.

Yet, the challenge to acknowledge the complexity of education practice requires the unfolding of a practice sensitivity, that is, the development of a sensibility to practice. The use of 'practice' in methodological terms sometimes is accompanied with a visual (and a representational view of knowledge) rendering of the nexus of doings-and-sayings of fields of practice (Nicolini 2009). Here, a practice sensitivity is

considered instead within a non-representational mode of knowledge (Osberg et al. 2008) which tries to intervene and recognise temporally the complexity and the multiplicity of educational practice. It develops by following an emergentist approach to knowledge, where the practice sensitivity is intended as a pragmatic tool which enables researchers to engage with the world in more complex and creative ways. Also, a practice sensitivity implies the use of sensible knowledge and aesthetic understandings – not limited to the visual but including all the senses – to comprehend the interconnection of the cognitive, emotional, political and normative aspects in the everyday practice of education.

## *Epistemology of Practice*

An oft-debated question is the political position of practice-based studies. Briefly, the critics of the practice-based perspective bring to the fore, at the same time, the basically tautological features of the approach and its conservative agenda with respect to the social worlds under scrutiny (Fuller 1989, 1992; Turner 1994). Here, the definition of education as 'initiation into practices' I have started with appears to reinforce the conservative position of practice-based approaches. In this regard, it is possible to note how some practices appear to be 'anchoring practices', that is, practices making possible other activities, and supporting fields of practice (Smeyers and Burbules 2006). Moreover, the relevant move is to draw attention from 'what particular practice' (the analytical approach) to 'how a practice is practised', that is, to 'how education is learned and enacted'. In that latter case, it is possible to formulate empirical questions and possibly specific answers about how the initiation into practices has occurred, or is occurring, and in particular whether education has fulfilled reproductive functions of teaching and learning and/or to what extent education has favoured ritual, imitative or critical engagement with practices. The crucial shift, here, is the passage to an epistemology of the practice countering the simplistic account of education that relies on a causal model of professional activity and a techno-rational approach of intervention. Practice as epistemology directs attention to education as an *embodied and materially mediated practice* that occurs in a material organisation of space-time and unfolds through sociomaterial arrangements (texts, blackboards, benches, pencils, technologies, objects of knowledge and space, bodies, etc.) which contribute to shape and, to some extent, are constitutive of educational practice. Looked at in this way, practice-based studies of education do not necessarily embrace a conservative view of education; rather, they are interested in the missing 'what' of education – instead of looking for social forces operating behind the scenes – so as to point out (a) what could be different and assume diverse forms and (b) that attempts at purely 'performing' education could (most frequently) lead to failure. Practice-based studies may favour, as Latour would say (2005), an increment of realism since they will contribute to a dynamic and complex notion of the pluriverse of education. That is to say, they support the writing of texts, whereby it should be possible to visualise education as situated work by the amplification of the details and the sociologies of associations. In that respect,

practice-based studies are a specific practice of research and, accordingly, a different way of performing the social. Practice-based studies are intellectual technologies that contribute (or may contribute) to enacting the social (Law and Urry 2004) by delineating the sociology of associations making up the difficult work of education in many sites.

## Concluding Remarks

In this chapter, I argued in favour of a return to practice in the field of education in contrast to contemporary tendencies to describe educational practice in simplistic and reductionist ways. I have highlighted how these tendencies reflect, first, the dominant discourse of lifelong learning and in particular the difficulties of that discourse that appear to be, at the same time, a totalising approach (Gewirtz 2008; Edwards 2010) and a conceptualisation appropriated by neoliberal agendas in its instrumental version. Second, I have shown how these tendencies reflect the diffusion of the culture of performativity that favours an output-oriented learning approach and increasing credentialism in the field of education.

By engaging with the practice turn in social theory (Schatzki et al. 2001) and with practice-based studies of knowing and learning in organisations (Gherardi et al. 2003), I have shown how simplistic descriptions of education have neglected, and silenced, the situated work of education. The situatedness of education implies the need to look at embodiments/sensible knowledge, sociomaterial assemblages of humans and non-humans and the performances of local moralities. In other words, the situatedness of education invites us to go beyond the technical-rational description of educational practice that seems to accompany the instrumental discourse of lifelong learning as well the culture of performativity and to reconsider the contributions of forms of knowledge on education and lifelong learning which are not aligned with the canon of 'evidence-based research'. I have argued that this 'going back' to practice does not imply a conservative view about education, provided that it favours the development of a practice sensitivity (a movement towards a non-representationalist mode of knowledge) and an attention to 'how a practice is being practised' ('how education is enacted'). Here, practice-based studies of education promise to deliver fine-grained knowledges enhancing the possibilities of helping in performing alternative spaces of education and lifelong learning.

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# Part II
# Investigating Learning Practices

# Chapter 7
# Towards Understanding Workplace Learning Through Theorising Practice: At Work in Hospital Emergency Departments

**Marie Manidis and Hermine Scheeres**

## The Patient, Jane Edna

Jane Edna is a 95-year-old nursing hostel resident who rings an ambulance one morning to take her to an emergency department (ED) in a medium-sized metropolitan teaching hospital. Jane Edna, who is almost blind, presents with vague symptoms of chest pain, which the clinical team works to diagnose and treat throughout, what becomes for Jane Edna, a long and traumatic day.

Over the space of the 11 h 15 min that she is in the ED, Jane Edna sees 22 people in total with specific care by two doctors, seven nurses, two ambulance officers, two orderlies, three radiography staff and one aged care nurse. She also engages with two researchers and is interrupted by a man fixing the curtains, a cleaner and a tea lady. Jane Edna has her medical history taken and is examined by and/or talks with 19 different clinicians/staff members; she undergoes a range of medical procedures including three ECGs and the wearing of an oxygen mask; she has two lots of blood samples taken; she has one X-ray and then a CT scan. The CT scan is delayed for 5 h by the absence of the radiographer, which caused a backlog in the X-ray department: *I think they're all out to tea somewhere*, the orderly informs Jane Edna. When she does finally have the CT scan, Jane Edna finds the experience distressing. In addition, she is admonished three times for calling the ambulance by herself without alerting the hostel staff to her condition (and for which the ED ends up paying the return trip), she has her clothes removed against her will, she must go without food even though she is hungry, she constantly wants to go home, she is exasperated

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and confused by repetitive questioning and begins to forget things and she experiences institutional anonymity as she is incorrectly addressed on several occasions as successive clinicians do not use her preferred name. On 92 occasions, there are other noises, voices and loud disturbances around her bed. Jane Edna has her radio with her which, at one stage, she turns on; she takes out some cream she has brought with her to wet her parched lips; she talks about her Vitacall (used to call staff in the hostel where she lives). She tells the researcher about her weekly discussion group at the hostel, her job as a fashion saleswoman when she was young as well as offers further information about her life growing up in Sydney, including how her sister almost drowned as a child.

Jane Edna's condition is diagnosed when she insists on eating a sandwich that causes indigestion. She is sent back to her hostel by ambulance late at night. In her own words, *I've been here all day and I've had – I'm an old lady darling and I want to go home. So, I'm getting impatient I'm afraid. I've come to the end of my tether.*

## Introduction

Jane Edna's experiences are, in one sense, unique, but she also slots into an accepted organisational way of life that constitutes the workings of an ED: the networks of talk, actions, participants, material arrangements and so on that together make up ED practices. While on the one hand, Jane Edna is an articulate, humorous individual, whose personal life is full of poignant memories, stories and activities that she brings with her to the ED and shares with the researchers, on the other hand, she is a patient – a medical case – and like all patients who present to the ED, she is subjected to diagnostic tests, procedures and processes that follow a sequential pathway into, through and then out from the ED. Her acuity and urgency are initially assessed, she is diagnosed and treated, and she exits from the ED, returning to her home.

In this chapter, we are interested in exploring the relationship between the bedside practices of a junior doctor who is learning to be a competent emergency clinician and the practices of the broader clinical team who are implicated in Jane Edna's care. By introducing our discussion through an account of Jane Edna's interactions and our observations during her stay in the ED, we foreground ED practices from the patient's perspective. As we follow her care, Jane Edna becomes a medical case caught up in the organisational flow of the ED. From the time of her arrival, Jane Edna is positioned as a passive player in the ED momentum of care – routines embedded in and enacted through repetitive clinical and organisational practices that constitute 'the organisational memory' (Schatzki 2006). This organisational memory is what we frame as a kind of institutional knowledge or order – the ED knows what to do with Jane Edna – and this memory is the persistence of the organisation's structure from the past into 'now' along with 'actions, thoughts, experiences, abilities and readinesses' (Schatzki 2006: 1869). In the ED, the professional practices of doctors and nurses are central to the activities there. While Jane

Edna's and each patient's trajectory is unique, the essence of the work that must be accomplished by the emergency clinicians on each day follows a broad pattern of prevailing practices: clinicians must diagnose, treat and dispose of each patient as quickly as possible.

We draw on Schatzki's work on practices, particularly his conceptualisations of organisational memory, sometimes referred to as the sum of practice memories (Schatzki 2006), and Gherardi's (2008), theorisations of practices and knowing, to understand how particular ways of working prevail. We contend that an understanding of how practices occur and persist and of how knowledge is co-constructed in situ helps to see workplace learning as more than applying and practising knowledge learned in vacuo. Rather, we argue, workplace learning in the ED involves maximising the potential of 'knowing-in-practice' afforded by the patient, the doctors and nurses together in a dynamic, social context.

The chapter begins with an explication of the theoretical ideas pertaining to practice that we have found useful. We then briefly describe the research project from which we gathered our data for analysis. This is followed by outlining Jane Edna's presentation to the ED focusing on practices around her bedside. In particular, the chapter traces the work of a junior doctor as he sets in train a series of biomedical investigations for Jane Edna to diagnose her condition. The doctor is a newly graduated clinician with less than 1 year's practical experience; thus, this is explicit learning work for him as he develops his medical knowledge and skills. EDs in tertiary referral hospitals provide a training ground for junior doctors to practise and further their expertise, as well as being a place where more senior doctors specialise in emergency medicine. This professionalisation is inextricably linked to the more publicly recognised public purpose of EDs which is to diagnose, treat and discharge all patients who come through their doors. Paradoxically, EDs are organisations that rely on routines and systems, on well-worn applications of clinical knowledge, and at the same time, they operate in the midst of the unpredictability and volatility of ED patient presentations. Thus, learning ED practices must rely on learning in situ, where practice involves a complex array of dynamic, collective and distributed doings, sayings and beings. Taking this view of practice, in which we explore 'a bundle of interrelated terms: knowledge, learning, practice, praxis, action, interaction, activity, experience, performance' (Gherardi 2009: 353), contributes to our understanding of the learning potential of collective practices in situ and how 'knowing-in-practice' occurs.

## Organisational Practices, Practice Memory and 'Knowing-in-Practice'

Schatzki (Schatzki 2006: 1867) proposes that organisations are made up of 'bundles of practices and material arrangements' with each practice made up of groups of individuals' know-how, general understandings of work, rules, protocols and motivations.

These practices continually unfold, influencing outcomes, actions and motivations for actions and their consequential effects. Practices persist (i.e. continue) and perpetuate (i.e. prevail) in organisations because they are carried forward within what Schatzki refers to as the sum of 'practice' memories within an organisation, a bundling of sayings and doings.

We are interested in exploring the nexus between the doings, sayings, beings and knowing and learning afforded by the ED context for junior doctors. How do junior doctors learn to do 'knowledge-in-action' (Gherardi 2000). Gherardi proposes that we 'acquire knowledge-in-action' by interacting with others before, during and after performances, and this contributes to revised understandings about how practices could be performed in the future (Gherardi 2000: 214). This bringing together of past, present as well as future practice (possibilities) involves learning. For Gherardi, it is in this 'knowing-in-practice' (Gherardi 2009) that practice knowledge is learned through participation and understood as dynamic, collective and distributed doings – a kind of socially constructed expertise.

Our focus is on junior doctors who are highly trained medical practitioners who have undergone many years of education, and as such, they have high status and respect generally; however, in the ED, they are seen by more experienced staff as learners. Thus, these doctors are learners who are not only learning to apply their medical knowledge, they are also learning who to be, what to do and say far beyond the application and development of biomedical expertise. Their biomedical expertise is privileged within the institutional order as it is junior doctors who direct the clinical investigation as they learn practice. But the ED is a social space where knowledge is produced in situ by more than the junior doctor alone – 'knowing-in-practice' also involves a clinical team and the patient – and we illustrate how 'doing knowledge together' (Gergen 1985) is not only possible, but desirable for junior doctors. Thus, we explore how the biomedical model of ED work foregrounds the application of medical scientific knowledge to practice – what Cook and Brown (1999) call the pre-eminence of organisational knowledge over the potential afforded by everyday learning/work in situ, that is, organisational knowing. The general perception is that junior doctors are learning practice mainly through applying pre-learned knowledge and skills; however, we argue, other possibilities are inherent in this emergent context. If our starting point is a more robust view of practice(s), then there are implications for in situ learning in the ED. In sum then, we contend that interrogating and theorising practices as they occur further our understanding of workplace learning and help us articulate the relationships between learning and work/working and knowledge/knowing.

Our research suggests that the ED reinforces the paradigm of learning as an individual phenomenon (i.e. that of one kind of learning for the junior doctor – organisational knowledge) over that of the collective efforts of several individuals working together in situ – organisational knowing (Cook and Brown 1999) – rather than seeing learning within a broader community of practice where 'the collective efforts of several individuals work … together', (Fenwick and Rubenson 2005 cited in Johnson and Boud 2010: 359).

## Research Project, Sites and Methods

The data in this chapter is from an Australian Research Council (ARC) project[1] conducted between 2006 and 2010 in five urban, teaching hospital EDs. The ARC study focused on clinician-patient communication, together with ethnographic observations and interviews. The spoken interactions were transcribed and analysed to ascertain effective and ineffective communication strategies and outcomes. In total, 150 clinicians were interviewed and 82 clinician-patient consultations were recorded; a total of 526 hospital staff participated in the study and 1,000 hours (h) of observation including 242 h of specific observations of clinicians at work were conducted.

We understand EDs as organisations – places of scientific expertise that have evolved over the past 60 years to become highly structured and distinctive health facilities. Emergency medicine has become a sophisticated, specialised area of health treatment (Australasian College of Emergency Medicine 2004), and now, institutionally, ED consultations are organised systematically, with every patient going through a similar sequence of care from triage (initial patient-nurse consultation) to disposition (what happens after the ED), the purpose of which is to diagnose and manage urgent illness/injury trajectories. The rational linearity implicated above is thwarted by the nature of an ED's 'business': it is a volatile workplace that is marked by unpredictability and unknowns as patients enter at any time 24 h a day, 7 days a week, and present with a wide range of symptoms.

## Practice at the Bedside

Jane Edna, who arrives in an ambulance she has called herself, is settled into a hospital bed by a senior nurse who helps her into a hospital gown and takes her blood pressure, temperature and pulse in the resuscitation room as there is no other space available. At the foot of the bed are two ambulance officers who handover to a junior doctor. He then takes her medical history and examines her. History taking and examination are two key ED procedures; they consist of doings and sayings that have been learned in theory and simulations before confronting a real patient. Thus, they have a recognisable structure. This junior doctor who is responsible for the initial diagnosis of Jane Edna begins his interaction with her with a colloquial, *How are you doing?* He has the primary responsibility to guide Jane Edna's journey through the ED. He brings together these protocols with general understandings of EDs and patients, his (clinical) know-how and motivations (becoming an expert doctor/helping Jane Edna/carrying out organisational procedures efficiently) in seeking to diagnose and treat Jane Edna.

The junior doctor sets in train a number of routine biomedical inquiries throughout the rest of the day. He asks further questions, gives Jane Edna morphine, takes

blood samples and orders pathology tests, an X-ray and a CT scan. He is able to perpetuate instantiations of clinical practice, that is, disciplinary doings, which simultaneously reside within what is acceptable and recognisable within the 'organisational memory' and 'status, experience and position-based … actions, thoughts, experiences, and readinesses' (Schatzki 2006: 1869) afforded by his scientific, biomedical knowledge. These constitute his practice memory and are 'interactionally maintained' in the ED. He draws on medical science to justify further tests: *I'm gonna scan your lungs. Scan your lungs for a clot. Okay? So we wouldn't miss anything.*

It is the junior doctor who makes the decisions about Jane Edna's care, and, as in other hospital contexts, in the ED, doctors are the ones who evaluate information about the patient and act on it medically (Hobbs 2007). When Jane Edna tells a nurse about her ongoing pain, she replies *Okay. Let me talk to the doctor.* Later, Jane Edna tells the junior doctor and another nurse that the pain has stopped and that she does not want another ECG done: *Oh God, I've just had enough* to which the junior doctor responds: *It's just that you had another chest pain that's why we have to do this.* Once the ECG reading is normal, the junior doctor tentatively tells Jane Edna *Okay, Jane. It's still the same. Okay. I think it's more of your stomach rather than your heart.* He hedges the articulation of a final diagnosis by saying he is still waiting for the result of the CT scan.

Our focus so far has been on the junior doctor caring for Jane Edna, where the doctor positions himself and is positioned by others as an individual who does and says what needs to be done and said when dealing with a patient who presents with chest pain. His nursing colleagues and others support these practices as they defer to his expertise. He focuses primarily on the application of his biomedical knowledge to practice. Thus, his talk regarding symptoms, medical history, medical procedures and so on and his actions in examining Jane Edna, taking blood and other related activities are about applying clinical knowledge that has been previously learned and rehearsed, together with ED procedural knowledge.

We now explore how this biomedical trajectory that includes the doctor as the central active player can be understood as operating within a larger frame: one where it is possible to foreground practices that involve many activities, participants and material arrangements in relation to one other. This perspective takes account of the importance of the biomedical practices and the importance of learning to apply knowledge and skills involving the biomedical and, more generally, the institutional order (Sarangi and Roberts 1999) of the ED – the trajectory outlined above. However, at the same time, it allows for a focus on the complexity of the doings, sayings and beings in the ED that can only be learned in situ – Schatzki's notion of 'organizations as they happen' (Schatzki 2006). Central to this kind of understanding is seeing the ED as a site where interprofessional team practices might be remade, thus fitting in with shifts to enacting interprofessional health care (Lingard et al. 2002; Matthews et al. 2011; Reddy and Spence 2008; Risser et al. 1999).

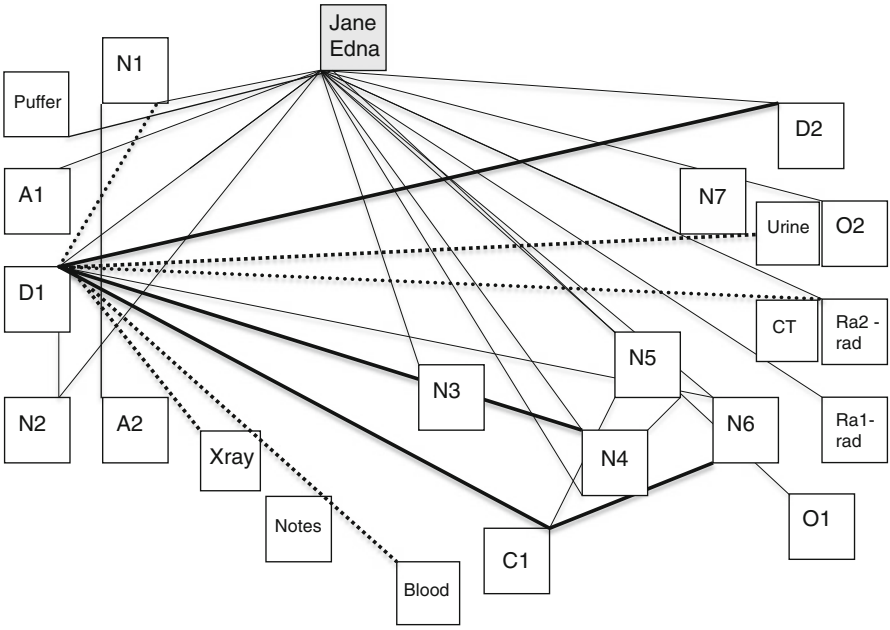


**Diagram 7.1** Network of people and artefacts

## Knowing and Learning in Practice

Firstly, we present a diagrammatic macro-illustration of what goes on around Jane Edna during her 11-h 15-min stay in the ED. The potential for 'knowing-in-practice' and 'doing knowledge together' that are afforded by the networks of relationships and encounters is highlighted. Our discussion moves between the actual and potential for 'knowing-in-practice' and 'doing knowledge together'. Knowing/knowledge is not restricted to information about Jane Edna and how this is co-constructed (or not) and distributed (or not). Although this is important knowledge – particularly in an ED – it is knowledge/knowing what to do, say and be as an emergency clinician that is at the heart of workplace learning in the ED.

### *Networks of Relationships and Encounters Around Jane Edna: A Macro Perspective*

Diagram 7.1 below is a map of the network of the social relationships and artefacts involving Jane Edna's care. The diagram depicts, through lines that connect Jane Edna to each person that she interacts with, a web of clinicians who each finds out something or knows something about Jane Edna. Care is divided amongst a

range of people. There are doctors directly involved (D1 and D2), ambulance officers (A1 and A2), nurses (N1–N7), orderlies (O1 and O2), radiography nurses/staff (Ra1rad and Ra2rad) and an aged care nurse (C1). The junior doctor, D1, is a central figure connected to a total of seven nurses (plus one specialised aged care nurse), most of whom are experienced ED workers.

By depicting each member of the clinical team who communicates with Jane Edna and with each other (either verbally or in writing) or via artefacts (e.g. X-rays, CT scans, blood and urine samples, previous notes),[2] we can say that knowledge about Jane Edna is distributed and co-constructed by the clinical team, thus some 'knowing-in-practice' occurs, with key actions and decisions remaining with the junior doctor.

Knowing about patients is institutionalised according to disciplinary divisions of labour reflecting differing status, roles and expertise. Clinicians construct knowledge about Jane Edna in a number of ways including locating and reading Jane Edna's previous notes, reading an X-ray, asking history taking questions, carrying out a physical examination, doing observations, taking three ECGs, collecting blood samples, ordering a CT scan and reviewing the results and reviewing the medications Jane Edna brings with her. This array of information 'produced' by a range of people and artefacts is available for use by the junior doctor (D1). The momentum of his work builds a medical case that leads to diagnosis and disposition. Part of the junior doctor's practice is his obligation to 'do' knowledge with another senior doctor (who in fact does not actively take part in Jane Edna's consultation) before a diagnosis can be given. Ideally, the junior doctor will also 'do' knowledge with the seven nurses and with the one aged care nurse. It is not just the number of other people and artefacts that the junior doctor (D1) relates to, and how often, that is important, it is that these encounters all contribute to and construct Jane Edna's case, and in so doing, they are made up of wide-ranging doings, sayings and beings making up practices. Thus, the relationships amongst these different practitioners and artefacts are sites for in situ learning.

In Fig. 7.1, we represent disciplinary activities in doing knowledge with and about Jane Edna (doctors, nurses only shown in the figure). These activities are the recursive 'visits' to Jane Edna's bedside which entail multiple sayings and doings – the 'rhythms and patterns' of interrelated practices that occur as care happens. Each visit reflects a sequential 'event in a flow' (Hak 1999: 433) of each clinician's and multiple clinicians' work and the life of the ED (these visits are interspersed with noise disturbances, a tea lady bringing a sandwich, a move to radiography, a move to the toilet and more) – spatial, material, relational and linguistic happenings involving collective working/knowing.

The nurses spend only two occasions together at Jane Edna's bedside. The first is when N3 and N4 settle Jane Edna and do their observations. On this occasion, they spend some time together at her bedside (7 min in total). The second time is when several nurses (N6, N5 and C1) are together with the junior doctor as the pre-diagnosis is discussed. For the remaining observations, nurses just pop in and out briefly or spend a short time doing observations, except for the aged care nurse (C1) as outlined below. The nurses engage minimally with each other about Jane Edna.

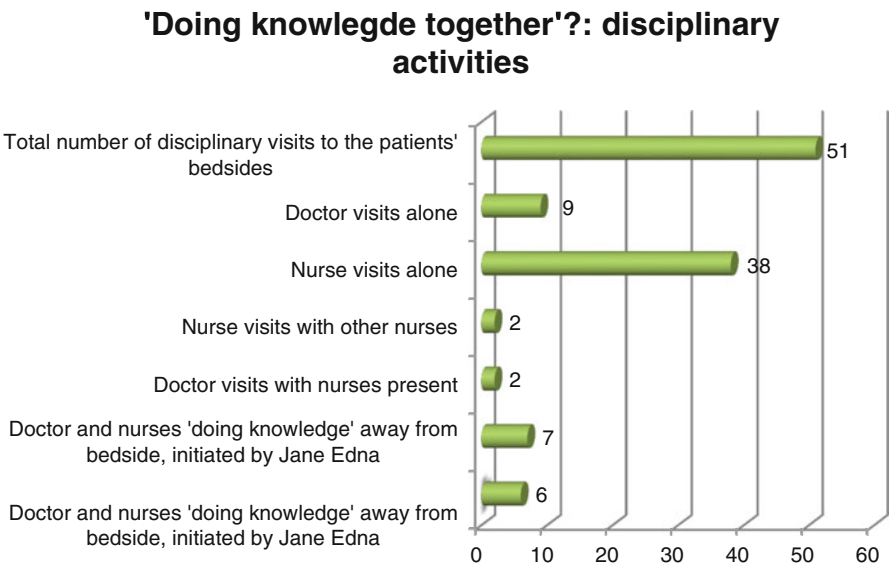


**Fig. 7.1** Visits to the bedside of Jane Edna (*JE*)

The junior doctor visits Jane Edna by himself on 9 out of the 11 occasions that he talks to her, and the nurses visit Jane Edna by themselves (alone) 38 times. Although the junior doctor visits Jane Edna far fewer times than do the nurses, his discussions with her are considerably longer, particularly during the initial history taking (half an hour) and in his discussion with Jane Edna when he organises her CT scan. The aged care nurse (C1) spends the greatest time talking to Jane Edna of all the nurses, approximately 15 min on one occasion. Nurse 2 who changes Jane Edna into a hospital gown and does her initial ECG spends an hour in the room while she is changed, has a cannula inserted and an X-ray taken, but she engages minimally with Jane Edna and talks only briefly to the junior doctor about Jane Edna's medications, morphine and cannula.

On a number of occasions, however, the nurses do consult the junior doctor (D1) about Jane Edna's care away from the bedside. Jane Edna precipitates almost all of these discussions. For example, we know that N4 talks to D1 about Jane Edna's pain and on another occasion about whether she can eat or not; N3 talks to D1 about Jane Edna having a sandwich; C1 talks to D1 three times, once about Jane Edna being hungry; once D1 and C1 discusses the CT scan and another time at the end of the consultation when C1 agrees to let the doctor know about her thyroxin levels; N5 also checks with D1 whether Jane Edna can have a sandwich. On all these occasions, it is the junior doctor's authority that is paramount. Further analysis shows that the junior doctor engages with his nursing colleagues predominantly on process or procedural issues at the bedside, and not Jane Edna's illness per se. Only twice is the junior doctor involved in discussions with the nurses about Jane Edna's illness at her bedside. On one occasion, the junior doctor starts to offer

partial information about Jane Edna – he begins saying *'She's',* then stops. On all other occasions, it is the nurses who offer opinions to him about Jane Edna – including a suggestion of what might be wrong with her that is ultimately central to her diagnosis.

The junior doctor engages more with the ambulance officers than he does with the nurses. On only one occasion between himself and the nurses, does he overtly seek medically related information/advice from them. This occurs towards the end of the day when he asks N5 to show him something about the ECG machine, *How do you do this?* he asks.

What emerges from this data is that the number of individual one-on-one encounters by the nurses and doctors with Jane Edna is significantly greater than all the remaining encounters between nurses, doctors and others on procedural and patient-specific matters in the bedspace and even beyond. This demonstrates that most of the encounters with Jane Edna are idiocentric (centred on individual tasks, roles and interactions with the patient) and predominantly disciplinary-based.

Jane Edna contributes, or seeks to contribute, a significant amount of her own 'experiential knowledge' (Neal and McKenzie 2010) to the consultation. These are not merely responses to questions, but contributions that Jane Edna initiates related to her illness and her comfort. At times, she offers insights into what might be wrong with her, *I'm wondering if this condition could be too much thyroxin in the thyroid gland?* She understands her condition and is familiar with medical terminology. On occasion, she combines this knowledge with personal appeals, for example, when asked to change into a hospital gown, she says, *I just don't want to get out of my clothes, I'm sorry*.

The diagrammatic representation shows the potential for learning practices that a consultation affords the junior doctor. He has the opportunity to draw on a wide range of collegiate and lay expertise – the ambulance officers who bring Jane Edna in, Jane Edna herself, the seven nurses who care for Jane Edna, the input from the specialised aged care nurse and, finally, the radiographers, as he learns (to) practice. The junior doctor also has access to Jane Edna's previous notes, CT scans, X-rays, blood urine samples, medications (her puffer, her spray) and so on, artefacts that are material arrangements connected to other experts and carers, both on the day and prior to this day. The richness of the organisational complexity is evident in the portrayal of these networks of relationships and encounters, and the challenge for the junior doctor is to find a way to be a part of this complexity as a team player while still maintaining the authority of his biomedical expertise where appropriate. This would involve, we maintain, a shift from seeing the ED as filled with organisational knowledge and learning (new) organisational knowledge to understanding the ED as fundamentally a dynamic site of organisational knowing.

## *Relationships and Encounters Around Jane Edna: A Micro Perspective*

We now present an example of a specific event around Jane Edna's bedside during her time in the ED. This is a scenario that occurs at a point of pre-diagnosis – a

somewhat unusual diagnostic event in that it is not the culmination of the tests and procedures Jane Edna has had. Rather, the pre-diagnosis is jointly constructed amongst nurses, junior doctor and patient. This occurs after Jane Edna has been in the ED for 8 h having undergone several medical procedures. Paradoxically, it is not the junior doctor's biomedical inquiry that diagnoses Jane Edna's problem but rather an instance of unpredictable, collaborative and collective 'doing knowledge together' by patient, nurses and doctor at the bedside.

After multiple biomedical tests have been ordered for Jane Edna, it is the astute observation and joint knowledge co-construction by several of the clinicians, in this case the nurses, that shed light on her problem. It has been a hard-fought battle for Jane Edna to get some food, and she has N5 bring her a sandwich. After eating the sandwich, she experiences acute pain. This episode precipitates the realisation of what her health problem might be. With the onset of the sudden pain, Jane Edna requests the researcher to find a nurse, (N6). The junior doctor arrives shortly thereafter and then the aged care nurse appears to check how Jane Edna is doing. All three interact with each other and Jane Edna at her bedside:

*D1* *Where's the pain now?*
*P* *The pain has eased a bit now.*
*N6* *Where was it?*
*P* *Just here where my heart is. There.* ***[indicates where the pain is]***
*N6* *So that's the epigastrium there.*
*D1* *Yeah.*
*P* *I don't really feel…****[speaking muffled by mask]***
*N6* *Yeah, I [chucked it] away. Alright, have you got….just a chest pain, that's all.*
*C1* *Really? Oh, okay. I was coming back to see how she was…*
*N6* *I'm [ ] that's all but it was full.*
*C1* *I wonder if she's some – see she was eating. And that…*
*N6* *Well it's more epigastrium.*
*C1* *Yeah.*
*D1* *Yeah.*
*C1* *Yeah, that's what I'm thinking. She was eating that sandwich and she hasn't eaten anything all day.*

The junior doctor opens with a question about the pain. In the interactions that follow, the nurse (N6) and aged care nurse (C1) dominate the discussion. The patient contributes her experiences, and the junior doctor confirms the nurses' medical suggestion with two *Yeah* responses. Diagnosis is not far away. The doctor at this point decides to do another ECG and after reading the results, says *Okay. I think it's more of your stomach rather than your heart.* He does not confirm a diagnosis but informs Jane Edna that he is still waiting for the fax from the radiographer (the CT scan) before he makes a final decision. The privileging of the junior doctor's agency and knowledge in the ED overrides the knowledge of the senior nurses 'which competes with, and on occasion is even superior to or more valuable than knowledge *per se* in its traditional formulation' (Green 2009: 4), that is, that of the more 'scientific' knowledge framework of the junior doctor, particularly in his early years of medicine in the ED.

The pre-diagnosis emerges in the moment as the clinicians and patient interact. They are working interprofessionally at the bedside doing knowledge together. Notably, the junior doctor is not the key player here as the two nurses quickly draw on their experience to voice what they think is going on. They collectively produce medical knowledge about Jane Edna, but there is more at stake here. Learning what is happening with Jane Edna occurs as part of learning to do, say and be at work together. There is learning which occurs, Macpherson et al. (2010: 5) point out, as 'practices [are] emergent' (see Antonacopoulou 2009; Schatzki 2005), and as actors negotiate priorities, action unfolds and learning takes place. This is in situ learning that emerges as organisations happen.

The example above is an instance of practice in the ED where there is doing knowledge together and the potential for learning doing knowledge together and knowing-in-practice. In this example, the junior doctor indicates he may be open to the nurses' pre-diagnosis that affords a potential contribution to learning practices.

## Discussion

Gherardi proposes that there has been a shift from seeing knowledge as a possession of individual or collective members of an organisation, that is, 'a knower' or 'multiple knowers', to seeing knowledge as a much more situated activity in an organisational setting, which she describes as 'knowing-in-practice' (Gherardi 2009). Gherardi posits that workers learn practices by participating in them, that is, learning in situ. EDs are workplaces where there is potential for enhanced and more explicitly recognised 'knowing-in-practice' and the ways in which this entails learning practices. Here, different knowledges are hierarchically valued, and there is a tension between a view of knowledge as possessed by different individuals and groups and knowledge as emerging in and through interprofessional work.

From Diagram 7.1 and Fig. 7.1, and our interaction data, we get some idea of just how interconnected the work of emergency clinicians is and how complex knowing in EDs is. Multiple knowledges – nursing, medical, allied health, patient, institutional, carer – need to work together to constitute 'knowing-in-practice'. The diagram, figure and our discussion foreground the multiplicity of emergent doings, sayings and beings and how these are relational rather than individual; yet, knowledge co-construction is organisationally set up to be predominantly individually driven. This paradox heightens the complexity of work in the ED. We contend that as knowledge about Jane Edna is being co-constructed, a kind of knowing-in-practice that involves sayings, doings and beings beyond applying medical (or nursing, or allied health) knowledge and skills is generated. The institutional order (Sarangi and Roberts 1999) of the ED with its disciplinary boundaries and the notions of applying previously learned medical knowledge and procedures that doctors bring to their work often overshadow the potential of this more complex view of practices.

An examination of practices allows us to understand how the collective organisational memory – clinicians' know-how, rules and understandings of work (Schatzki 2006) – is enmeshed with the more organisationally and societally valued disembodied scientific knowledge of the biomedical science upon which the expertise of specialists in the ED is premised. It is the learning role of the ED itself, wherein medicine and nursing argue that their specialised knowledges must be progressively developed by nurses and doctors, first in vacuo, then as applied 'by doing' over time, that appear to override the in situ learning potential of everyday practice in the ED.

Schatzki states that 'in all organisations, the unfoldings of performances and of material arrangements are coordinated or linked with one another and also exhibit temporal features such as rhythm and patterning'. 'To experience an organisation in real time is, thus, to experience the movements of its performances and events; to understand an organisation in real time is to grasp, explain, or theorise these interrelated and patterned passages' (Schatzki 2006: 1866). In 'grasp[ing] these interrelated and patterned passages', we find that the rhythms and patterns of Jane Edna's consultation are at the same time structured and emergent.

These rhythms and patterns are situated foremost within the clinical team, where there is both distributed agency and collective intentionality (Engestrom 2008). If agency is disproportionately vested in the junior doctor's application of biomedical knowledge, this poses particular challenges for learning practice, as it restricts knowing-in-practice and doing knowledge together involving the junior doctor with more experienced nursing colleagues and with Jane Edna herself. Schatzki suggests that 'by considering different congeries of action, …, agency can be seated in any component of a network, as well as in the network as a whole' (2002: 205) particularly in working together rather than individually.

The division of labour that is enacted for Jane Edna's care and the privileging of the biomedical knowledge align with the recognised, or sanctioned (but contested), structures of hierarchical knowledge within and across medicine and nursing (Liaschenko and Fisher 1999; Stein-Parbury and Liaschenko 2007). However, what we have illustrated and discussed here is the potential disruption of these ED practices. Making a space for ED practices to foreground interprofessional work as knowing-in-practice may lead to rethinking how this hierarchy is consequential for learning practice in the ED.

## Concluding Points: From Practise to Practice

At Jane Edna's bedside, we have traced how a junior doctor's practices dominate the care regime for Jane Edna. The junior doctor and a team of clinicians bring to Jane Edna's bedside, particular sayings, beings and doings, which are formed, in the main, by disciplinary and institutional values and hierarchies.

The junior doctor's practices are directive, biomedical, routine, but above all epistemologically privileged within the ED's institutional framework. The nurses' practices are complementary to the junior doctor's and multiple; what they do is

supportive and secondary in terms of the direction of care. Paradoxically, it is their knowing-in-practice that ultimately sheds light on Jane Edna's condition. The junior doctor confirms Jane Edna's condition after consulting with further scientific evidence (the results of the new ECG and the CT scan) and, according to his procedures and protocols, with the medical knowledge of his senior doctor for the day, although we do not have direct evidence of this discussion.

The ED's model of learning and knowing sets up a focus on one kind of learning, that of the junior doctor practising his knowledge and skills and adding to this experientially. There is less of an explicit focus on the potential that in situ practices afford, for him, and the others, to learn to do, say and be an interprofessional team doing knowledge together.

We conclude that the existing paradigm of the way practices are enacted in the ED, where knowledge is understood as an epistemology of possession, might more constructively combine with knowing-in-practice as situated activity in time and space done together by a range of practitioners, including patients, where the latter is given more explicit status. Learning/knowing for the junior doctor is much more than the application of his expert knowledge to practice – it embraces learning to work in a team, learning from more experienced senior nursing colleagues and maximising the potential of the complex, social setting of the ED. In other words, his learning (to) practice goes beyond practising what he has learned.

Our interrogation of the kind of learning possible in the bedside space of an ED examined the situatedness of learning. Our empirical data has shown just how complex the ED working and learning environment, characterised by different disciplinary practices and paradigms can be, as well as the work/learning potential afforded and constrained by practices.

The complexity of the learning about Jane Edna is generative and collective and emerges out of the interactional understanding between the nurses, Jane Edna and finally the junior doctor. Johnsson and Boud point out how it is possible for 'actors to use complex contextual and relational resources to jointly determine the practical matters of work. Often in guided and spontaneous ways, these resources can shape the conditions of emergence and invitational opportunities that expand what it is possible to learn when work practices also become learning practices' (2010: 370). The social and clinical dimensions afforded by the bedside space make this space a critical one for learning and changing practices. But learning and change can only be realised if knowing-in-practice becomes the predominant paradigm of practice, rather than the application of in vacuo knowing to practice. It is not enough to apply biomedical scientific knowledge to practice with notions of learning by experience (trial and error) as a fairly straightforward given – this does not adequately take account of the complex potential of in situ learning/work and work/learning that everyday work affords.

Interrogating and theorising practices as they occur further our understanding of workplace learning and help to articulate the relationships between learning and work/working and knowledge/knowing.

## Endnotes

1. *Emergency Communication: Addressing the challenges in healthcare discourses and practices*. The ARC Linkage study was a multidisciplinary University of Technology, Sydney, project in partnership with five major hospitals.
2. Each square depicts a person involved in Jane Edna's care: lines joining her square indicate a direct encounter; lines joining two squares indicate communication between people about Jane Edna; bold lines indicate several encounters; dotted lines indicate a written communication. Note that there may have been other encounters between clinicians about Jane Edna away from the bedside not observed or recorded.

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# Chapter 8
# The Complex Systems of Practice

**Jeanette Lancaster**

## Introduction

The philosopher and social theorist Theodore Schatzki, in surveying the way in which the concept of 'practice' is understood in current social theory, describes views of practice as constituting a diverse field but concludes that most of these views are centred on practices as 'embodied, materially mediated, arrays of human activity centrally organised around shared practical understanding', albeit with debates about how to understand the significance of both embodiment and 'materially mediated' (Schatzki 2001a: 11).

This understanding of practice has a broad reach. One of the things it does is to raise the issue of meaning in relation to practice. It places the activity of 'shared practical understandings' centrally. 'Understandings' suggests that the instantiation of meaning is an 'activity' of practice underlying the activities or behaviours displayed in the performances of a practice. That they are 'shared' means that practice is a social function but is extended by embodiment to implicate bio-psychological functioning. It also implicates, by extension of 'material mediation', the attribution of meaning to material entities giving them a role in social life (Schatzki 2001b).

A second aspect of Schatzki's understanding of practice relates to the epistemological framework that is needed for practice. He includes both of the phenomena 'social orders' and 'mind' (Schatzki 2001b). These are commonly conceptualised from within different epistemological frameworks. In his own account of practice, Schatzki places practices at the centre of human social life and argues that practices interact with each other to form a field, which can be understood as 'the social'. Practices are linked with both social orders and with mind understood as a non-substantive,

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non-causal conception, a relational 'states of affairs' of 'how things stand or are going for that person in his or her involvement in the world' (Schatzki 2001b: 57). If the field of practices then provides a 'context' for both social orders and mind, then practices can be understood as both *differentiated from and linked to* both. This understanding raises the issue of how these differing aspects of human functioning can be considered together in an account of practice without either a reduction to individualism, or the commonly used equivalent alternative, of a 'reduction to the social'.

This chapter takes up the two linked issues of how practice can be conceptualised and what onto-epistemological framework is useful in this task. How to conceptualise practice involves addressing the function of meaning in practice, where practice is understood as having a social basis, yet involves individuals, not as generic agents but as specific, embodied, socially influenced but self-directing agents. Addressing meaning in practice involves a re-consideration of an aspect of embodiment, that of bio-psychological functioning. It will be argued that meaning is socially produced or shaped through the partial 'sharing' of individuals' affective processing with others in groups basic to human functioning. Such engagement in the production of meaning, in turn, allows the individual to be a participant in the evolution of a practice and a performer of that practice. It also involves the argument that shared affective processing is the social function by which meaning comes to be created, re-created through interpretation and instantiated in all aspects of social life, from the transformation of aspects of the natural world into material tools, to the creation and evolution of culture.

One onto-epistemological framework for understanding practice as encompassing both individual functioning and social processes is complexity. However, to utilise complexity effectively for this purpose, it needs to be formulated less reductively than it commonly is. This chapter will first outline the features of complexity, as it is commonly understood in social sciences, an understanding derived directly from the natural sciences. It will be argued that this usual conceptualisation is based on a reductive understanding of the relations that underlie complexity, and that it is this that limits its use in the social sciences. A less reductive understanding of relations is available, in the form of the pragmatist philosopher John Dewey's conceptualisation of 'trans-actions'. These relations both *link and differentiate* the parties to the relation. Understanding complexity as being based on complex relations, for which trans-actional relations are an exemplar, allows a formulation of complex systems that can be used for an encompassing but non-reductive understanding of practice.

## Complexity

'Complexity' is an umbrella term for a conceptual field that is derived from multiple disciplines across the natural sciences, mathematics, philosophy and the social sciences. Central to an understanding of complexity is that it takes *relations* as a basic ontological unit rather than *substance, things* or *entities*, as in traditional, substantialist

Western ontologies (Emirbayer 1997). Relations implicate systems: wherever relations are found, what is present can also be conceptualised as a system of some form. For example, a couple, an 'entity' with internal relations, can also be conceptualised as a two-party system. From a complexity perspective, systems are conceptualised, not as being built up out of entities, although entities form part of the system, but as being structured by the relations of the system and the patterns that those relations produce over time.

Work using the methodologies of mathematics and the natural sciences has shown complex systems to be characterised most significantly by the following key ideas: non-linearity of internal relations, 'attractors', 'self-organisation', existence at 'far-from-equilibrium' states and 'emergence' (Goldstein 1999).

## *Non-linearity*

Taking relations rather than entities as the primary ontological unit introduces the asymmetrical dimension of time, which highlights the non-linearity of relations prior to the methodological manipulation that produces linear relations. Relations understood as non-linear are recursive, so output feeds back into the process of the relation, an influence that may be direct or indirect, enhancing or dampening. In this conception, relations are not logically reversible; causes and effects do not have the epistemological equivalence of a linear relationship, so small differences in initial conditions of a system of complex relations may lead to unpredictably different outcomes.

## *Attractor*

When a non-linear equation is solved using the appropriate mathematics, what is produced is not something numerical but a pattern, in multiple dimensions. This pattern represents the long-term dynamics of the system and is known as its 'attractor'. The 'strange attractor' of complexity is a set of values about which a system moves but never reaches, producing a pattern of endless variations. The human face can be understood as an example. Every face can be seen as a 'variation on a theme' while no fully determinate entity, 'a face', exists. At the same time, there are outside limits, albeit indeterminate, to the sphere of activity of an attractor and therefore limits to the system (Manson 2001). Any living organism has limits, inherent but not standardised. So, trees of a particular species grow to heights that are varied but within a limited range; trees have varied, but not randomly varied, life spans. It will be argued below that each performance of a practice can be understood as a variation on the theme of the practice itself, which, as a strange attractor, is never fully determinate.

### *Self-Organisation*

Complex systems exhibit self-organisation, which is an elaboration of internal complexity due to the workings of the complex relations in the system over time. It results from the continuing adjustments and adaptations the system makes in managing its internal processes while adapting to its external environment.

### *Far-from-Equilibrium States*

Complex systems exist, not on a linear continuum of disorder/order, but at 'far-from-equilibrium' states that 'hold' both stability and unpredictability. In far-from-equilibrium states, systems have the capacity, at what are variously known as bifurcations or phase changes, to become unstable leading to the breakdown of the current patterns of relations, an internal reorganisation of the system and the appearance of a *new* attractor, associated with *new* patterns of relations. This phenomenon is known as 'emergence'.

### *Emergence*

Emergence is the appearance of 'radical novelty' (Goldstein 1999) or 'qualitative novelty' (Mikulecky 2001). It can be defined as 'the arising of novel and coherent structures, patterns or properties during the process of self-organisation in complex systems' (Goldstein 1999) or as 'the-coming-into-existence of new forms or properties through on-going processes intrinsic to the system itself' (Lewis 2000: 38). Emergent phenomena may be recognisable as 'offspring' of a system which itself may be complex. Examples are a new child in a family or the development of a sub-specialty of a profession. It may be expressed in terms of radical change within the 'parent' system. An example of this is an individual learning from experience being conceptualised as a qualitative change in a body/mind system in response to that experience. While emergent phenomena are characterised by qualitative novelty, this novelty is not something random because what is possible as emergence is constrained by the properties of the original system (its attractor). The emergent feature both preserves some 'likeness' and has 'irreducible difference' in relation to its parent system. So, every human can be understood as both an individual and as an expression of humanity.

## Complexity and Relations

Complexity can be understood as 'what there is': the world with its myriad natural, biological and social relations with which we are in relation, in different ways that give different perspectives on the world and yield different forms of knowledge

(Cilliers 2002). Understood this way, the version of complexity that is commonly used in the social sciences is reductive, unnecessarily limiting what is conceptualised as knowledge. Current thinking about complexity has been shaped by the fields of mathematics and the natural sciences, where work is largely necessarily based in a reduced, Newtonian onto-epistemological framework. In particular, reduction is an essential aspect of research where causal relations are being sought. However, the mechanisms and the extent and significance of reduction underpinning these processes are commonly overlooked in the social sciences.

Relations as understood in the social sciences are already reduced in form, and complexity as it is usually understood is based on these reduced relations (Lancaster 2011). The reductive move is from complex real-world relations to the simpler linear relations of logic and Newtonian mechanics. These relations function much like entities themselves. Their value or meaning is fixed and inherent, does not depend on context and is unaffected by time, so they are unchanging over the duration of the process in which they are involved. Nor does engagement in linear relations alter the entities that are party to the relationship. For example, in '1 + 1', the '+' has a fixed meaning. Neither '1' is altered in its internal integrity, by the presence of '+' nor is '+' altered by either adjacent '1'. These are the kinds of relations between bricks in a wall (Hager 1996) or between a marble and a glass jar containing it (Garrison 2001).

John Dewey addressed the issue of reduction in relations in human functioning in 1949 in his late work with Arthur Bentley (Dewey and Bentley 1989). Dewey outlined an abstract formulation of the relations of living entities and of the relations that characterise differing degrees of relational reduction, experienced or made, in human processes. Dewey named the relations of Newtonian mechanics and logic, 'inter-actions'.[1] Their origin is methodological so their place lies in the 'convenience of study' (Dewey and Bentley 1989:103).

Dewey contrasted inter-actions with the living relations of organism-environment co-ordination: 'trans-actions'. He conceptualised the trans-actional process as being constituted by a distinction between organism and environment that is not an ontological given, waiting to be discovered, but the result of the human activity in the process of conceptualising human experience (Garrison 2001). Parties to trans-actional relations are understood as *functions* of a holistic co-ordination rather than as discrete *entities* brought pre-formed to the relation. They cannot be specified apart from the relation that they partially constitute. So, 'stimulus' has no meaning without 'response' and 'teaching' without 'learning' ('or not learning'). A dove has no status as 'prey' unless it is engaged with a hawk, in a predator-prey trans-action. Nor can each party be specified apart from the other, as each reciprocally 'co-creates' the other. Each is not known in a fixed way prior to the process of relationship; what they are must be 'discovered', as their significance or meaning unfolds as the process moves through time. As in all complex relations, in trans-actions, time is acknowledged and both the relation itself and the parties to the relation 'evolve' through the process (Dewey and Bentley 1989: 112–115).

Parties to trans-actional relations are of a functional, rather than a substance-based, equality. They are mutually dependent but are functionally asymmetrical, in that they cannot be substituted for each other. Each can be defined as 'not the other',

much like the yin/yang concept of Chinese philosophy. Another way of understanding this is that a trans-actional relation is a relation that holds within itself an internal distinction of a complementary but irreducible differentiation.

Complexity is commonly formulated in a reductive form, based on relations that, while non-linear, can be understood as having the original form of Deweyan interactions, so they are, in theory at least, amenable to algorithmic analysis. This conceptualisation fits within a substantialist onto-epistemological framework, and complexity conceptualised in this way can be thought of as a deterministic sub-set of complexity (Lancaster 2011). An example of complexity understood this way is that of a uniquely structured sand dune, produced from multiple grains of sand, being regarded as an emergent feature of the geographic system that produced it. But here, the relations between the grains of sand are, again, at least in theory, amenable to algorithmic analysis, and the grains themselves are not (significantly) changed in the dune formation process.

Basing inquiry in the social sciences on inter-actional relations is appropriate where the individuals who are party to the relations are conceptualised as research 'variables' or as generic 'agents', such as in the use of complexity for modelling purposes, like the modelling of traffic behaviour, of stock market fluctuations or of the spread of epidemics. But inquiry in the social sciences is limited by a lack of recognition of the initial relational reduction that underpins this form of complexity, because there can be no acknowledgement of the significance of what is lost by the reductive manoeuvre. Social inquiry, where the particular is relevant or where it is meaning rather than causal explanation that is sought, is impoverished by the use of this reductive framework.

If the basis of complexity is taken as complex relations, characterised by the presence of internal, irreducible distinctions, for which Dewey's trans-action can function as a two-party exemplar, then a complexity-based onto-epistemological framework that encompasses greater complexity becomes available for use (Lancaster 2011). One of the consequences of conceptualising complexity in this way, as 'general complexity', is that complex systems, particularly complex social systems, can be considered (Heylighen et al. 2005).

## Complex Systems

The phenomenon of emergence gives rise to a generally agreed definition of complex systems: they are systems where emergent or 'macro level'[2] properties of the system cannot be explained in terms of parental or 'micro level' properties. For example, living organisms have, as their basic constituents, atoms and molecules on which life depends, but life is not a summing of such constituents; it is a phenomenon of a qualitatively different order. Positing that different levels in a complex system are characterised by irreducibly different internal relations means that the system as a whole cannot be meaningfully analysed in terms appropriate for just one such level of the system. The laws of physics and chemistry cannot be used to

understand living physiology; the rules that describe physiological functioning of the body/brain cannot be used to understand psychological functioning of the mind and psychological concepts cannot be used to describe or explain larger scale social phenomena such as organisational functioning. Thus, a complexity framework can be understood as one that encompasses irreducible distinctions without reduction to one or the other party to the distinction.

A complexity framework encompasses temporality. Each complex system has a history constrained by its original conditions and shaped by its responses to what it has undergone during its life. The system's history, its 'memory', is embodied in its current functioning (Cilliers 2006; Seidl 2007). This history functions as an internal limit of the system, both constraining and enabling. For example, an organisation that has been set up for a particular purpose, in particular circumstances, and has undergone particular events will have constraints on its range of possible future functioning.

A complexity framework encompasses limits in a way that a substantialist framework does not. From substantialist perspective, in theory at least, knowledge can be accumulated indefinitely and what we don't know now, can or will be known with further inquiry or increased computational power. However, complexity tells us that because everything cannot be connected to everything else, there are limits to functioning and limits to knowledge. Because they are constituted by complex relations, complex systems are incompressible, that is, no complete description of the system that is smaller than the system itself is possible. Any account of a complex system involves drawing a boundary, to distinguish what is to be considered the system and what is not. Such a selection process is contingent, so alternative possibilities, the significance of which *cannot be known*, have been left out; hence, descriptions of a system can never be complete and are always linked with the perspective from which they are made (Cilliers 2002, 2005).

Again, unlike a substantialist framework, a general complexity encompasses generativity or creativity, in the form of emergence. Emergence is problematic from a substantialist perspective because it is not amenable to algorithmic analysis. It is ostensive, that is, it can only be known when it appears (Goldstein 1999). It cannot be formulated or directed but it is not something random either.

Complex system boundaries are not spatial boundaries; they are a boundary function, formed by system relations (Cilliers 2005). Complex systems co-exist with each other in different ways. They relate on the basis of their own attractor function, that is, on their own terms. This is commonly an ecological relation where systems ignore or compete with other systems and, in turn, are impinged upon in a complementary way. However, living complex systems have a capacity for some 'interpenetration' of complexity, that is, aspects of their complex functioning may overlap or be shared. However, to maintain their own integrity and survive in this situation, they need to have control of their own functionality, including the functioning of their own boundaries. So in considering the functioning of living systems, an additional concept is useful, that of a complex system function of an internal open/closed distinction, known as operational closure or autopoiesis.

## Living Complex Systems: Autopoiesis

While substantialist systems are conceptualised as either open or closed, in complex systems, there is flow of energy or material into and through the system, but at the same time, the system's structure is maintained. Biological systems need to be open to their environment in order to take in nutrients and excrete waste products but also need to maintain their integrity as a system. Biologists Humberto Maturana and Francis Varela described biological systems as managing this problem by being differentially open and closed: open for nutrition or sources of energy but closed in relation to *control* of their functioning, which is thus self-directed (Maturana and Varela 1980). This allows system processes, including the characteristic biological function of producing and re-producing of the system itself, from materials selectively imported from the external environment, but without being directed by information from external sources. Maturana coined the term 'autopoiesis' meaning 'self-creating' for such self-referential systems. A commonly used biological illustration of autopoiesis is that of the functioning of the organic cell, which imports what materials and energy it needs while the internal management of its functioning is wholly self-contained. Over its lifetime, the cell makes and remakes its own cellular components, including those that contain the information necessary for this process. It is this producing and re-producing of these components that *is* the central functioning of the cell as cells have no 'purpose' other than to live.

Whole biological organisms too autopoietically maintain their integrity as individual organisms. However, in particular circumstances, they are able to 'share' aspects of their individual functioning with each other. Such sharing occurs where two neurological systems, in close proximity over time, come, through social interaction, to share an alignment of certain neurological structures in the brain. This is known as 'structural coupling'. It is of crucial significance for human development, and it provides a platform for the human capacity of sharing aspects of bio-psychological functioning throughout life. Human psychological functioning is usually considered to be an aspect of the individual's private mind. However, work in disciplines such as neurobiology, child development and psychoanalysis suggests that aspects of bio-psychological functioning are shared. This sharing is a truly bio-psycho-social process, mediated by interpersonal relations between specific, rather than generic, individuals. It has both a biological-psychological outcome for the individual and a social outcome as it is central to the interpersonal relating from which human meaning emerges. It is this that makes it of central importance to an understanding of practice. As is argued through this chapter, practices are intelligible; as described by Schatzki, they are based on 'understandings' so the function of creating and re-creating meaning underlies practices.

The significance of what is shared in this process, affective functioning, will now be elaborated.

## Human Complex Systems: Affective Functioning

For human survival, individuals need to be able to monitor and regulate internal psycho-physiological states, to engage with the external environment, including the social environment, and to manage the relationship between these inner and outer worlds. Managing these needs is a relational function of the body/mind: 'affective functioning', where raw experience, from inside and outside of the body is processed and given meaning from social sources. Affective functioning is a poorly delineated concept. It is a complex function, largely unconscious or tacit in nature, resisting linear exposition and representation in language. Recognisable emotions, such as anger, disgust or sadness, emerge from it, but it also encompasses the processing of a range of other relational and qualitative psycho-biological experiences, present from the beginnings of life. At this time, the developing mind is experienced as less differentiated from bodily states than it later comes to be, so affective experiences often have a somatic or bodily component. They include qualitative experiences such as that of 'newness', 'discordance' or 'recognition'. They are the experiential aspect of human relating to the world: 'empathy', 'intentionality', 'will' or 'desiring'. They can be observed in learnt human physical dexterity and skills and in the enjoyment of music, dance and poetry, where it is the 'emotional shape' of the activity, rather than any cognitive content, that carries meaning. For the individual, affective processing manages both the human need for engagement with the world and the results of that engagement. It provides the subjective experience of living: the basic ongoing sense of the self as a live agent, allowing us to survive in what would otherwise be an overwhelmingly complex and meaningless world. It is also, as elaborated on below, a function that is necessarily partially shared with others. This sharing with *specific* others is the process from which human meaning emerges, and hence it forms the basis of human practices.

### *The Origins of Shared Affective Functioning*

Affective functioning has both input from the social world and a biological substrate; however, it is not solely contained within the biological individual. Immediately after birth, psychological functioning is relatively undeveloped. The infant needs an extended period of engagement with specific adults, commonly, primarily the mother, for the development of the capacity to regulate levels of arousal (alertness) and internal affective states. Here, in shared affective exchanges between mother and infant that are not conscious and that are mediated non-verbally through touch, gesture, facial expression, vocal tone and prosody, the mother processes the infant's experiences for them, so that internal, bodily and emotional experiences and external social experiences are integrated, becoming coherent and meaningful.

This mutual mother-infant functioning is a bio-psychological as well as a social process that is a consequence of the infant brain being 'wired' to allow structural shaping of its neurological development by affective engagement with other humans. Affective processing involves changes at a structural biological level, drawing some developing neural structures in the infant's brain into alignment with the same structures in the maternal brain, the mutual accommodation between the two neurological systems known as structural coupling. This integration of social experience and biology allows the storage of early experiences in the form of implicit memory and provides the infant with tacit, somatic- and affect-based working models of themselves, their body and their relations with the external world (Schore 2001). It is how we become human. It can be understood as the earliest form of human learning, and all later learning, from the development of language through to the complex abstract intellectual activity of the adult, is underpinned by this meaning-processing affective functioning.

The form of relating, where two or more minds function temporarily and partially as if they are one, by sharing affective functioning, is a human capacity that remains throughout life, albeit with less significance for survival than at the beginning of life. The individual uses it for support in the management of their internal affective states and in all interpersonal relating. 'Kept in mind' it forms the continuity of interpersonal relations, including in the absence of the other. It is both the source of grief at the loss of an affectively bonded other and the basis of empathy: the ability to identify with another. It underlies all social activity. It is the central function of the 'co-present' group, to be discussed below. Here, meaning is produced, providing the impetus for the social aspects of human activity, and in an ongoing way is interpreted, re-produced and re-attributed to human activities, modifying them. It is from the functioning of multiple, interrelating such groups that practices emerge and evolve.

## Practice and the Co-present Group

The processing of affect is a primary function of human groups of two or more individuals, known as co-present groups. These are the familiar small groups that individuals engage with for the whole range of human activities; groups such as couples or families; friendship, social interest, ceremonial or work groups; and committees, working parties, task forces, teams, mentorships, therapy dyads, apprenticeships, classes, tutorials, supervision groups, clubs or community groups. They are based commonly on face to face or some other form of direct relating that extends over time, so that group interactions are constituted of more than an exchange of information, but, by including degrees of the non-verbal aspects of communication such as body language, facial expression and vocal intonation, come to facilitate the unconscious sharing of affect necessary for the processing of human experience in such groups. The central characteristic of co-present groups that facilitates this is that the individuals do not relate to each other as generic agents, but as *specific* individuals in complex trans-actional relations with each other, and hence are able to come to know each other 'affectively'. The working of complex or

trans-actional relations over time is the mechanism whereby group affective processing establishes and maintains the group, providing members with the feeling of being a group rather than a collection of individuals, even when group members are absent. It allows the group to function as a 'distributed mind' where individual functioning can be conceptualised as an aspect of the functioning of the group as a whole. Thus, an individual practitioner's performance can be understood as an instantiation or exemplar, one of a range of possible expressions of a particular practice.

Each co-present group can be understood as a complex system that emerges from the complex relations between the individuals of the group, while these individuals themselves function as complex systems, shaped by individual biology, personal social relations and historical experiences. If co-present groups are understood as living complex systems, each can be seen to have an affectively imbued attractor: the group's meaning or purposes. A group's attractor does not coincide exactly with the group's overt or stated purpose, such as, say, to solve an organisational problem or to learn some English grammar. The group's attractor, determined *by the group itself*, includes both the overtly understood purpose *and* the sharing and processing of affect, that is, of the wishes, interests, intentions, emotions and understandings of the group participants. Co-present group functioning is 'self-directed' in that it unfolds under the sway of the particular group's individual and ever varying attractor. This means that a co-present group cannot just follow external directions; it interprets these self-referentially according to its own needs. So, for example, in an English class, both how a teacher handles a particular piece of the curriculum and how students learn on that particular occasion will be shaped by the affective functioning of that particular class. Each class is an instantiation of a practice or practices (teaching English or classroom learning of grammar).

Sharing aspects of individual functioning in affective processing makes the co-present group a system of greater complexity, and therefore of greater creative functionality, than either the individual alone or other more reduced human systems such as whole organisations or bodies of theory. This is because the increase in complexity is based on increased complexity of relations, not on an increased summation of simple relations. Knowing group members as specific individuals necessarily limits co-present group size, but co-present groups have a greater complexity than a numerically greater crowd, where affective connections are relatively reduced, which is why crowd behaviour is often developmentally primitive in nature. They also have a greater complexity than a social institution or an organisation as a whole, because here a necessary reduction of complexity has already taken place in shaping the social structure's purposes, hence the need in organisations to set up internal co-present groups, such as working groups or committees, for addressing complex tasks (Lancaster 2011).

Co-present group functioning has two different forms of outcome, one usually conceptualised as social and the other as psychological. The first is the emergence, from the group's shared processing, of meaning, as determined and attributed by the group. Meaning, as a 'group understanding' may be fleeting and lost immediately or taken up, used and refined. Co-present groups interact as complex autopoietic systems with each other. Individuals move between co-present contexts, over time, so group complexity is shared in reduced form, formulated in language and given

new context-shaped complexity by its re-interpretation as it is used, adapted, passed on or ignored. Meaning may be produced in progressively reductive forms, to become opinion, theory, guidelines, rules or norms. These are generalisations where the situation or the individual is reduced to the generic, and useful where a reductive view is appropriate. They underpin the social concepts of equity in justice and in resource distribution. They are portable over distances and can be controlled, facilitating bureaucratic administration (Porter 2003). However, they also come with a loss of necessary complexity, so complexity is re-introduced in their use in every new performance. They may form part of a practice's attractor and may in turn, not direct, but constrain performances. Co-present group function, like that of an organic cell, can be constrained, or even killed off, but it cannot be directed. In some circumstances this is seen as a cost, as say, when bureaucracies want standardised teaching or medical treatment outcomes. However, the benefit is that co-present group function provides the greatest possible complexity available to us for managing our most complex problems.

The other outcome of co-present group functioning is that participation in the relations of the group changes the participating individuals, a change that can be conceptualised as learning. Such changes may remain unconscious or tacit and be seen as bodily capacities and skills only recognised in contexts where they are called on, or they may be experienced by the individual as an understanding of the meaning of some aspect of a particular practice. It is this learning that individuals take and contribute to new co-present groups. It is this learning that is expressed in the myriad individual performances that function as variations on the theme of a particular practice, itself ever evolving.

## Conclusion

This chapter has elaborated an account of complexity based on complex rather than reduced relations. Complexity formulated this way comes with a cost of the recognition that knowledge is always limited. At the same time, it allows for a conceptualisation of living, human functioning in terms of systems that are both non-reductively linked and differentiated through phenomena such as emergence and shared autopoiesis. This allows complexity to be used as an onto-epistemological framework for formulations of human functionality such as that of Schatzki's account of practice (Schatzki 2001a, b).

Practices can be understood, as Schatzki suggests, as being central to human life. I have argued here that the creation and processing of meaning are both central to human life, underlying human practices, and that the co-present group is the site of this function. The 'shared practical understandings' that Schatzki places as central to practice can be seen to be created by, and emergent from, the multiple functional iterations of the linked co-present groups that constitute a field of practice. Such 'shared practical understandings' function as a context both for both 'mind' and for 'social orders' (Schatzki 2001a, b). Here, Schatzki is considering mind in relation to the individual's relational engagement with the world, which, as has been argued, is dependent on both access to shared meaning and participation in its production.

In reduced form, Schatzki's 'shared practical understandings', emergent from the co-present group, includes the attribution of meaning to social and material phenomena, both ultimately shaping 'social orders' and allowing material mediation of social meaning.

## Endnotes

1. This chapter retains the hyphenated form that Dewey uses for these terms to indicate that his particular definition of the term 'transaction' is being used.
2. The terms micro and macro 'level' here refer only to the different 'parent' and 'offspring' functions of complex systems, not to any hierarchy of value, function or complexity.

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# Chapter 9
# Practice as Complexity: Encounters with Management Education in the Public Sector

**Christine Davis**

## Introduction

In recent years, recognition of the gaps between theories of management and the daily practices of managers has led to the 'practice' approach appearing in management literature (Jarzabkowski 2004: 529), although still as a minority voice. Practice theory has, however, barely touched the world of management education (Davis 2010a). This chapter addresses that absence arguing that 'practice theory', as a field, is a productive resource for conceptualising management education. It also proposes that contemporary hierarchical public sector organisations are complex systems and that such complexity cannot be addressed by practice theory alone. Accordingly, the notion of *practice as complexity* is developed to enable rich understandings of management education to be advanced.

The field of management education draws heavily upon understandings about management to determine directions for selecting both content and process. Throu-ghout the fields of management and organisation studies, the dominant framing of management is as the application, by individuals, of technico-rational knowledge, a set of universals deemed to be applicable to most contexts (Clegg and Ross-Smith 2003: 90).

This perspective on management has the 'flow-on' effect of dictating the content and processes common to much management education in MBAs at universities, in-house programs and those provided by consultants. Common practices of management education are individualistic and focused on the technical and rational knowledge valorised within management circles (Fenwick 2008; Johnsson and Boud 2010). Much is taken for granted in this field, so, for example, the contested nature of key terms such as 'learning' and 'work' (Fenwick 2006: 265) is glossed

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over and the contextual dimensions of management are backgrounded in many decisions about the purpose(s), design and provision of management education programs. Activities in this field, although numerous, mostly offer a limited repertoire of courses, workshops and seminars which provide information and/or teach the dominant models of management and individualistic processes such as 360° feedback, psychometric testing and project development which relate to motivation to institute changes and the implementation of planned change (Davis 2010a).

Management education however lies at the nexus of management and education so it is also impacted upon by theorisations of adult education and workplace learning and education. Cutting across the orthodox approaches to management education named above is a growing engagement with sociocultural perspectives on ongoing and incidental learning on the job as central to workplace education (Rogoff 1995; Wertsch et al. 1995). More and more, education regarding 'work', that is, paid work at any level of an organisation, is being understood as 'shaped through moment-by-moment interactions and engagement in activities that are constituted by the micro-social processes of the social practice' (Billett et al. 2004: 236). Similarly, Hodkinson (2008) suggests that '[t]he biggest influence on learning at work, is the work itself. Workplace practices are a major influence on learning at work'. Such a position about sites of learning in workplaces, by managers as well as staff, provides a context conducive to the use of a practice approach to management education.

However, a practice orientation by itself cannot take sufficient account of the complexity of management and the complexity of contemporary organisations (Davis 2010a: 138–139). The sector of the workforce under consideration in this chapter is the South Australian public sector (SAPS), the site of a research project from which this work is drawn (Davis 2010a). South Australia is a state with a small population (1.6 million), so its public sector is relatively small, yet, as an organisation consisting of numerous departments and agencies in locations across the state with multiple goals, purposes and relationships, it is complicated. Although held together by government policy, which is labile, and by a state strategic plan which demands integration of services as well as other forms of activity (Davis 2010a: 196; SASP 2007), the degree of relationality can seem almost overwhelming given its maze of employees working within and across departmental boundaries and spaces in a mass of practices and activities.

SAPS is also an organisation which in the past three decades has been transformed significantly as the practices of neoliberal managerialism have progressively been installed. As in most countries/regions of the world, a major component in the embedding of neoliberal precepts in government has been the shift towards a particular view of its role and, consequently, a redefinition of the public sector. Almost universally, nations have been confronted with the view that the 'task of government is to construct and universalise competition to achieve efficiency and invent market systems' (Olssen 2006: 219). This has been normalised as standard practice through the impact of international organisations such as the Organisation for Economic Co-operation and Development, the International Monetary Fund, the World Bank and the World Trade Organisation

(Sahlin-Andersson 2001). The International Standards Organization (ISO) has also produced 'standards' for management (ISO–9000 2008) isomorphic with neoliberal managerialism and dominant models of management. Such standards appear neutral but are inscribed with the authority associated with an organisation which deals mostly with those universals of a technical nature which can rightly be specified to the last atom.

In every public sector, management practices will differ. The scale and scope of each organisation and the underlying ideological affiliations of the government of the time, as well as the history and circumstances of that society, will mean that there will always be some differences between and within public sectors. At the same time, there will be some common features such that one can talk broadly of contemporary public sector management in the same terms. Deem and Brehony (2005: 220) suggest that there is a range of practices which constitute the various versions of public management found in different sites but that they include workforce restructures, 'the erasure of bureaucratic rule-following procedures', the establishment of quasi-markets within the agency, targets for services and budgets and partnerships with private companies and 'devising means of publicly auditing quality of service delivery' within a prevailing audit culture (Power 1994; Strathern 2000a). South Australia matches this 'template'.

As a consequence of such changes since the mid-1970s, the landscape of management education has changed considerably. During that time, South Australian public sector organisations have moved from having in-house education teams in most departments/agencies because it was seen as their responsibility to provide further education for their managers and workers. As part of a general societal shift towards neoliberalism and human capital theory, organisations are now institutionalising the individualised responsibility of managers for crafting themselves into whatever form of 'good manager' is required by the organisation (Foucault 2008). Nowadays, creating, finding and taking opportunities for continuing study and professional development are largely the responsibility of managers who are expected to anticipate changes so that they have the required profile of 'capabilities' when the need arises. In-house 'education' tends towards informational sessions about new policies and legislation, often provided by consultants. Managers are thus likely to be enrolled in MBAs or in programs offered by the Australian Institute of Management, the Institute of Public Administration Australia (IPAA(SA)) or similar organisations and companies, more than learning in in-house programs.

In this chapter, the term 'management educator is used' to cover providers in all such situations.

## Practice as Complexity

Contemporary practice theory, with historical roots stretching back to Aristotle and Marx, proposes practice as *primary*, the major unit of analysis within society (Cooper 2005; Green 2009: 39–54; Reckwitz 2002; Schatzki et al. 2001), the means

by which society has the coincident capacity for continuity, change and newness. Schatzki proposes that practice is:

> a temporally unfolding and spatially dispersed nexus of doings and sayings… linked in certain ways. Three major avenues of linkage are involved: (1) through understandings, for example, of what to say and do; (2) through explicit rules, principles, precepts and instructions; and (3) through what I will call 'teleoaffective' structures embracing ends, projects, tasks, purposes, beliefs, emotions and moods (Schatzki 1996: 89).

The social world is thus theorised as a mass of overlapping practices, powered by human activity, each practice with its own trajectories and each capable of being changed as the situation demands, independent yet fluidly interrelated. Practices are conceptualised as 'sites of the social' where all that happens—the 'doings and sayings'—constitute each other, shaping meaning and identity as a practice is enacted (Schatzki 2002).

The notion of connection and relationship between the various components in a practice and between practices in a situation is central in this understanding. As Cooper (2005: 1697–1698) contends, 'everything exists in a field of relationality as a mobile matrix of interacting events whose individual components are never more than partial and transient'. Accordingly, practice is understood as *relational* (Bourdieu 1977; Carroll et al. 2008; Schatzki 2001), with *bundles and nets and arrangements* of activities and practices at macro and micro levels in society (Schatzki 1996, 2001, 2002), *interconnection* between elements (Reckwitz 2002) and fuelled by *interdependence* between participants in the practice community (Barnes 2001).

Practice theory usefully provides an argument for practice to be the unit of analysis in public sector organisations (Antonacopoulou 2008; Antonacopoulou and Chiva 2007; Gherardi 2009; Petzinger 1999). A corollary of that position is that the relationality between elements in a situation be grasped sufficiently. However, as Cooper (2005: 1694) argues, relationality is elusive, known only partially and momentarily, a fundamental driver of

> human agency which withdraws from all our attempts to capture it as an essence and which at best we can only approach through the partial and transient snapshots of our conceptual mappings.

Management educators, however, have to know such organisational intricacy in order to work with it—not in the mechanistic sense of identifying every cog and wheel in correct order but knowing it as a fluid process of elements and their relationships. The practices of management educators lie at the nexus of their conceptualisations of learning, practice and change, in the context provided by the circumstances of the organisation(s) in which they work and their relationship(s) with the organisation(s).

Their role demands that they take account of the organisation's web of intersecting and sometimes contradictory practices—the practices and relationships established by the formal structures, procedures and protocols, the extant practices being lived each day by managers in response to the formal components and whatever happens in their contact with staff and clients and those practices which

the management educators are required or wish to install or modify by virtue of their brief from the organisation. Simultaneously, management educators need to analyse their own practices as educators. They thus need to recognise various orders of practice and how they relate to each other and to know what that means for their work. They also need to recognise that the ends being achieved will be some combination of those of the senior-middle managers with whom they are working, the executive managers and the organisation as an entity and their own—a further source of density.

Hence, for the purposes of unpacking dimensions of management education, it is valuable to develop a richer sense of relationality in practice and to gain more purchase on the notion of relationality. I thus turn to a different 'conceptual mapping'—the complexity sciences, which differentiate between various types of systems and which offer the potential of exploring practice as relational.

Complexity theory brings to the study of practice the notion of complex adaptive systems, that is, relational entities of a particular form. These are *open* and *dynamic* systems in which the elements are agents in the whole and the practice is *emergent,* being novel and 'neither predictable from, deducible from, nor reducible to the parts alone' (Goldstein 1999: 57). The notion of *emergence* is central to complexity theory—the various elements which enter and leave such a system are transformed by each other, and what emerges will be surprising, for the relationships between the elements and the consequent dynamic are not linear. A complex adaptive system is fundamentally volatile and is sensitive to initial conditions, such that minor variations in those conditions can produce significant differences to the outcome (Elert n.d.). The changes within the system, produced in bifurcations in which the system either collapses into chaos or becomes other, are irreversible (Prigogine n.d.). Probability is foregrounded in such a dynamic because 'the nonlinear mathematics of these complex systems disallows exact prediction of future states, since the equations governing such systems are not analytically solvable' (Goldstein 1999: 60). Whilst derived in the physical sciences, for example, thermodynamics, the idea of a complex adaptive system is seen to resonate with the behaviour of organisations so has literal and/or metaphoric power for analysis (Blackman 2001).

When these two theoretical resources are brought together, the notion of *agency,* as it has often been understood within social theory, shifts considerably. It moves away from simplistic notions of reproduction and transformation as oppositional, towards historicised participation and engagement as agentive (Cooper 2005).

Such a framing of practice also provides a fresh appreciation of what is situated in practice and moves from a general conceptualisation of context to a much more specific one, in which all of the fine details of the situation are understood as agents in the system and where any minor variations in the components, particularly at the beginning, become (surprisingly) significant (Elert n.d.). As a consequence, every iteration of a practice is new, although regular and recognisable as that practice, and the social world is understood as a complex of shimmering practices, constantly different and constantly the same, rather than as a series of static blocks of activity.

When participants or observers to a practice identify 'patterns' in it, the patterns are often conceived of as rules that govern the practice. However, the practice

precedes the rule; what has been articulated does no more than *describe* what appears to be happening, from a particular perspective, rather than *determining* what will happen (Bourdieu 1977, 1984; Strathern 2000b). The practice-as-complexity framing shifts the focus from identifying and following rules to *engagement* with the practice and towards being rule-referenced (Green 2009; Wittgenstein 1968). The use of a rule is not itself rule-governed, so rule usage is both 'exhibited in what we call "obeying the rule" and "going against it" in actual cases' (Wittgenstein 1968: 201). At most, rules can provide only the structures within which practices are improvised rather than determining the form of the practice (Bourdieu 1977).

From both theoretical fields comes an emphasis upon 'going on'. Practice is understood as seamless; complex adaptive systems fold seamlessly into themselves as emergents become participants in the next iteration whilst the circumstances of relationality and interdependence create the energy for 'going on'. Practices may unfold over time, but there is a quality of immediacy about how participants know how to 'go on'. This is not to suggest that practices are necessarily performed without delay. People can hesitate, make mistakes or avoid but, in doing so, they are still engaged with that practice. Even if there are problems in the enactment of the practice, there is a fluidity, a quality of smoothness in the adjustments to the situation, and in the transitions from one practice to another, because such modifications happen in situ. Managers can switch in the first 15 min of the day from looking at budget reports with administrative staff, to fielding a phone call regarding service delivery, to dealing with hiring new staff, without noticing that they have engaged in three different practices,[1] or sub-practices, of management. What occurs may include impediments, but the process operates without discontinuities or disparities, allowing for the practice to be situated and emergent from that situation, never decontextualised and different in every iteration.

Engaging with *practice as complexity* shifts understandings of management education to a very different conceptual plane. It factors in managers' spontaneous tacit responses to situations and acknowledges the multifaceted layers which form the every day in large organisations and the multiple elements which are simultaneously components and emergents of the system(s). Without recognition of the complexity of such organisations as sites of management, as well as recognising practice *as* complexity, a very impoverished version of management education eventuates.

## Practice as Complexity and Learning

A key feature of this perspective is that learning and knowing are situated *in* the practice, utilised and generated at the point of relationality, in the moment of 'doing'. A practice-as-complexity perspective means thinking differently about knowledge and knowing in workplaces and about approaches to management education. Centring on practice means that the focus is on learning in situ, through the act of doing and thinking about doing as part of that doing.

Furthermore, a major consideration for organisational learning is that, if practice is understood as complexity, it needs to be understood as emergent from all of the

elements at work in the organisation, and that any minor variation in those elements can result in very different outcomes. This immediately suggests that management education requires that attention be paid to *all* of the features of the system which is generating a particular practice. Such a view challenges the desire to isolate variables and control practice in an attempt to ensure that only practices of the 'correct' form(s) eventuate (Davis 2010b).

But what happens when there are obstacles to 'going on'? These obstacles might include changes of government policy, a global financial crisis, changes in technology which lead to changes in work, an internal restructure in the organisation, a change in contracts and customers, a product launch or withdrawal, a new internal policy or a redefinition of 'core business'. A manager's capacity to 'go on' is sabotaged in some measure by the need to enter new territory, to respond to the further complexity of such moments and to generate modifications of practice which address the new situation.

Heidegger offers a way of conceptualising the impact of such interruptions to 'going on'. Two of his neologisms, 'present-at-hand' and 'ready-to-hand', distinguish Dasein's[2] response to objects as circumstances change (Dreyfus 2000; Heidegger 1977). If I am driving my car, it is ready-to-hand in Heidegger's terms. As I drive, I am using a combination of internalised explicit and tacit knowledge to process the traffic, the feel and sound of the engine and the behaviour of other road users. I am purposeful in my actions, yet I am unlikely to be consciously and deliberately thinking about every action as I do it. But then I realise that I have a puncture in a tyre. Now my car is no longer 'ready-to-hand', it is 'present-at-hand' by Heidegger's usage. My relationship with the car and the work I intended to achieve is different. I can no longer take arriving at my destination for granted, and I have now to be more deliberate and aware in my actions to stop safely and change the tyre. My attention is engaged but not with the everyday task; it is now engaged with the new situation. I am still 'going on' but what I am doing, and how, is different. One of Heidegger's examples of two such situations is even more simple. One can use a doorknob for days, months, years without thinking about it, but the moment it does not work, the world changes (Heidegger 1962; Okrent 2000).

Heidegger's notion of 'present-at-hand' provides a metaphor for moments of learning in organisations. Given the nature of practice, managers can be 'going on', moving from one practice to another, calling on what they know how to do to and improvising from that base, solving problems, extending themselves to do something slightly differently and dealing with issues, fully engaged—their management capabilities, *many of which are tacit*, activated, enough for the situation, ready-to-hand. But then they encounter an obstacle which interrupts the flow, and now they are in this new state of awareness of the need for learning; their capacities for management, present-at-hand, are focused on dealing with the obstacle, *also as part of management*.

It is not a problem that managers need to pay attention to obstacles. These are regular features of workplaces. But by engaging with the obstacle, managers are interrupted from 'going on' and no longer engaged in the everydayness of managing. They are now engaged in a new form of 'going on', working on something which will extend them in some measure because if they already knew it, or they could improvise it on the spot, it would be an everyday task, ready to hand.

There are many forms of interruption. Apart from 'boulders' of government policy, some interruptions come from the manager as they stop, midstream, to reassess their actions or to take on some feedback or to engage reflexively with where they are going or where they have been. Many come from the nature of the work itself. Senior and middle managers are dealing with the difficulties associated with working in organisations which are multifaceted, ordered and constantly changing—interruption upon interruption and change upon change are intrinsic to their situation. Another form of interruption could be a deliberate intervention of an educational kind. The sources of the interruptions will be different, as might their characters, but the outcome remains the same—everyday practice is interrupted, engagement is redirected and a new response is required and learned. Or as Reay (2004: 436), using Bourdieu, suggests, 'when habitus encounters a field with which it is not familiar, the resulting disjunctions can generate change and transformation'.

Within this frame, the learning of managers can be understood as both emergent from their everyday practices which utilise both tacit and explicit knowledge *and* emergent from the interruptions to those practices, variously brought about by external or organisational circumstances and/or reflexivity. Both forms of learning are equally impacted upon by the structures and power relations within the situation, being neither neutral nor natural but emergents of the whole (Billett et al. 2004: 236). Both are equally present and equally valid parts of the whole known as management education.

The practice-as-complexity perspective shifts the focus of management education from determining outcomes and curricula in advance to engaging with the whole context and what is developing within it. It does not fit easily with programs designed to provide information and/or those with curricula which allow no negotiations with the learners. It also confronts and is confronted by the energy towards standardisation and regularity found in neoliberal managerialism—'the daily drip-drip-drip of destruction of the conditions for thought, …[of] the audit culture … [whilst] seeking merely to regulate and render accountable' (Pollock 2006).

## *The Quality of Learning*

A significant problematic inherent in this perspective on management education is that it can gloss over issues relating to the *quality* of the learning and practice which is emergent in a situation. That practitioners learn by virtue of engaging in a practice has no bearing on the direction, quality and nature of the learning (Johnsson and Boud 2010) and the quality of the practice which ensues. There is a need to 'problematize the over-riding assumption in most of this literature that learning is inherently a good thing' (Fenwick 2006: 274), for there is nothing intrinsic to the fact that learning happens which suggests its character. The nature and worth of the spontaneous learning will depend upon the various elements within the system and the dynamic between and within them.

Recognition of this point raises questions about 'good' and 'bad' practice—what is a good management practice and what is bad practice and by which criteria is this determined? And by whom? Assessment of the quality of management practice in an organisation is a contested issue. Those practices desired within an organisation are not necessarily congruent with some managers' worldviews nor the values they champion. There are thus several points at which tensions can arise: in the nature of the demands made upon managers and any differences between their personal values and those manifesting in directives from above and/or the core business itself and the feasibility of organisational expectations regarding performance given the level of resourcing and capabilities available.

Accordingly, it becomes difficult to develop appropriate responses to questions of 'good' and 'bad' practice. Organisations can lean towards individualistic responses to such questions—bad practice is deemed to emanate from an incompetent individual manager or worker who is either to be 'developed', that is, 'reformed', or got rid of. The underlying ideology of neoliberal managerialism, with its privileging of individualism, resonates with that view. However, the practice-as-complexity perspective challenges such a response, for it foregrounds the complexity of the relations between organisational practices and the individual manager.

A common response to the dilemmas associated with the quality of practice is to attempt to specify the practice in terms so prescriptive that there are no spaces for deviation. Such moves take little account of practice as complexity and the views that practice is probabilistic rather than predictable and that descriptions of practices and attempts to create rules about practice can only ever be partial (Davis 2010b: 162–166; Doyle 2009; Strathern 2008). In the same way, in recent years, government control has penetrated various professions, filling the spaces that allowed for the exercise of professional judgement with very specific requirements regarding practice.

## *Considerations for Management Educators*

The notion that learning occurs in organisations *in situ,* and that much knowledge is tacit, does not suggest that the there should be no educational interventions by management educators. What managers learn in their everyday processes is everyday processes. They do not automatically learn to analyse those processes, to develop alternatives nor to recognise the gaps and traps in the *status quo* and how to respond to proposed changes. Nor do they necessarily learn how to respond strategically to pressures on them from their organisations to behave in ways they find uncomfortable. I would argue therefore that there is still a place for management educators to set up programs and processes which enable managers to engage thoughtfully with their workplace and their roles.

As a basic move, for their own awareness about their context, a management educator taking a practice-as-complexity view of management education will need

to analyse and identify the ways in which the dominant and alternative models of management and management education are manifesting in the particular site. They will also need to negotiate points of cohesion, difference and contestation in order to establish what is required of them and what form of relationship they are entering into. They would then need to take a considered position regarding the demands being made of them.

Given that power works differently in different organisations and in different situations, such educators' work will vary and will itself be fluid and contradictory. They might well spend a significant proportion of their time scanning the organisation and reading the 'signals' as well as networking with managers and others to identify sites of contestation. The education process may consist of setting up situations that allow managers to identify and engage with the contradictions and ambiguities, to name the paradoxes of power, to explore the exercise of agency in such circumstances and to confront ethical dilemmas.

Such processes may reposition the educator in some measure, depending on their practices of the past. They could be collaborating with managers to identify those aspects of ongoing organisational life which have the potential to support or impede learning and then developing strategic responses to both. If the managers and/or educators identify the need for information then it would be given but, significantly, not as the purpose and central focus of the moment but as background which enables rich exploration of dimensions of organisational life currently being taken for granted.

## Management Education as Practice as Complexity

When working from within the practice-as-complexity perspective, the broad goals of management education will include identifying and 'unpacking' the sites of struggle within the power and ethical relations of the organisation and its context. This perspective demands deeply accommodating the notion that practice is volatile, fluid and emergent which cuts right across any sense that practice is able to be prescribed and that the work of management education is to teach managers such prescriptions.

Given that the education of managers is emergent from their everyday practices, as well as from the interruptions to those practices, everything that happens within an organisation is a site of learning, with everyday activities central to ongoing learning. The interruptions to 'everydayness' which also become sites of learning can occur as a result of the work itself, as issues not normally encountered, or encountered too often, are dealt with. Although (some of) these interruptions can be seen as largely 'everyday', what sets them apart from what I have been calling 'the everyday' is that they trigger a shift from ongoing use of established tacit and explicit knowledge to a different level of awareness and connection with the situation. Managers spend their time moving between these two forms of engagement—intensely involved and utilising what they already know

either tacitly or explicitly as the familiar flows on, then caught by an interruption and shifting to a different type of awareness, one in which explicit new knowledge is more likely to be produced. In both of these moments of learning, 'knowledge, understanding and reality are themselves emerging through educational processes' (Biesta 2010: 6). Management educators need to find ways of working with such shifts in awareness as well as the situations which trigger the shifts.

It has become the norm for orthodox management education programs to be framed as 'guaranteeing' that participants will know about, or how to do, X or Y as a result of their participation. There are networks of technologies designed to commit a program to achieving particular outcomes—lists of goals, targets, aims, competencies, capabilities, accreditation criteria and employability skills—all utilised to shore up the assumption that knowledge and learning can be specified in advance. These are often announced before the program starts,[3] in the name of 'transparency', ostensibly to address power imbalances between educator and participants but, in effect, acting as a linear accountability measure layered onto the educators. As a result, the curriculum of these programs is determined in advance of any engagement and negotiations with the learners. When viewed from the practice-as-complexity framework, such practices are meaningless given that 'educational processes are characterised by nonlinearity and unpredictability' (Biesta 2010: 6).

Complexity also means taking seriously that the sociopolitical context of the practice and its institutional location are *all* elements of the complex adaptive system which makes up the practice. They are all implicated in the practice, so it is impossible to approach management education adequately without incorporating such dimensions—not just as some content added on but as intrinsic to the whole process. Attempts to specify, isolate and decontextualise practice, common in dominant models of management education, can be understood as potentially counterproductive and/or sites of struggle for sustained or effective engagement.

The practice-as-complexity perspective impacts all dimensions of a management educators' craft. It can affect the selection of learning activities, pedagogy and content and the processes for their determination. The recent study of management education within the SAPS (Davis 2010a: 253–291) has shown how easily considered decisions by educators about pedagogy and content can impact on a program. Some of the examples from that study highlighted the ease with which micropractices of education served to amplify the dominant discourse about management. For example, the wording of a simple 'warm-up' activity early in a program which asked participants to nominate current workplace dilemmas contributed to locating, *without recognition and analysis*, the ensuing conversations in mainstream management discourse thereby broadcasting a position which could have been interrogated. Such examples can alert management educators to the degree and nature of investigation of pedagogical decisions required.

A further dimension of pedagogy impacted by the practice-as-complexity perspective is the centrality of tacit knowledge in that framework. Such a view challenges assumptions that identifying the behaviours of competent managers can lead simply to identifying the content of management education. Many management programs are based upon the identified attributes, experiences and skills of managers who

have been designated as competent (McCall et al. 1988). The logic is that if such a manager is observed to be doing X or states in interviews that they do X, then teaching people to do X will produce equally competent managers. However, there cannot be such a simple correlation between a manager's articulation of their practice and the content/focus of management education, as representations of those managers' practices can only be partial as their tacit knowledge is unavailable to such narrations.

With a practice-as-complexity perspective as a reference point, it also becomes important to identify the organisational circumstances which would allow a manager to follow through on the learning which everyday practice enables. Given that each iteration of a practice is a new moment of practice, managers learn from 'going on'. They learn the practice, developing a more finely nuanced 'feel' for all of its dimensions, becoming more embedded in it as they experience it more. They run the risk of just 'doing it' how they have always done it and of learning practices which are inimical for them and/or the organisation. To mobilise the opportunities for learning new practices which everyday work provides, and the possibilities that the interruptions can enable, managers need something more than being left alone to 'get on with it'.

Garrick (1999: 216) argues that managers need to have confidence that their organisation will provide them with time and opportunity to make sense of the learnings which their work brings to them. Learning of this order requires opportunities for engagements that are relational—for sharing information with others, building knowledge together about the work and debriefing hard moments and tough problems. It also requires access to information about the circumstances of the particular work, alternate models, toolkits and frames of reference to facilitate analysis. The absence of any of these elements from the management education interferes with or degrades the learning.

The prominence of learning *in situ* demands that managers have opportunities to confront that process and to identify how their practices reflect habituation rather than intent. Any learning on the job may be learning that is unproductive for either manager or organisation, or both. Managers thus need to be in a context in which they can *evaluate* the learnings which come from 'doing', engage in dialogue about them and consider their ethical, pragmatic and strategic options with others who are equally able to be articulate about these dilemmas.

## *Organisational Practices Which Can Work Against Learning*

Despite the rhetoric of 'letting the managers manage', the practices of neoliberal managerialism in large organisations tend to embrace hierarchy and centralised control (Davis 2010a: 304–310). This is achieved through a set of practices which together can impede learning by increasing workloads and focusing on explicit knowledge. Increasingly, management practices are being reduced to a series of procedures with the written records of practices becoming proxies for the practice (Doyle 2009; Power 1994, 1997; Strathern 2000b). Every moment of practice is

likely to be at the intersection of more than one set of procedures and regulations. However, there is no rule for telling whether a rule should be invoked—and which one (Wittgenstein 1968). When professional judgement is exercised, it can come up against the legalism produced by different sets of procedures pulling in different directions. Such accountability measures amount to audits, which then loop back on to practice by demanding documentation of what has been done, which then forms the basis of performance management systems. As a result, the records of the practice serve the purposes of audit, surveillance and control rather than the practice, the practitioner or the client. But the records also serve to constitute the practice so that practitioners learn to value the specific acts which are to be documented and managers learn to value the documentation more than the practice (Power 1997: 7). Management educators have to sort through the distortions of learning produced by the forms of documentation required and open up spaces for engaging with the impact of such misrepresentations on morale and judgement.

In 2009, the chair of the South Australian Public Sector Performance Commission (PSPC) called for managers to improve their performance and expressed a desire to develop leaders 'who learn by doing' (Westacott 2009). When viewed from the practice-as-complexity framework, such a call is questionable. The managers *are* learning by doing. For that reason, it would be more appropriate for such a body to pay more attention to *what* managers *are doing* and *being asked to do* in their everyday work and therefore what they *are learning*. Westacott's call for excellence from managers locates responsibility for learning in the individual manager and distances the organisation from the consequences of organisational demands and priorities.

## *Ethical Implications for Management Educators*

Bakhtin puts an unequivocal position about the centrality of ethics:

> I have to answer with my own life for what I have experienced and understood in art, so that everything I have experienced and understood would not remain ineffectual in my life (Bakhtin 1990: 2).

Working with a theory of management education centred on relationality which also seeks not to be oppressive means that all actions, at all times, are sites in which ethical agency can be exercised, or not, by management educators. They are at the centre of the struggle to enable praxis and phronesis[4] to flourish in large hierarchical organisations, by providing learning opportunities for managers.

An overarching ethical dilemma for management educators who see current forms of practice as problematic is whether

> we keep our critique to ourselves and simply relish in the aesthetic pleasure that writing critically may provide us with (or suffer in silence at our inability to make a difference)? Or should we champion the cause of the oppressed at the risk of further contributing to their domination by having our critique appropriated and translated into 'performative knowledge'? (Fournier and Grey 2000: 26–27).

Associated with that dilemma is the quandary of whether the critique which is generated results in different practices or whether it teaches greater compliance.

A further consideration is how appropriate it is for a management educator to raise the ways in which neoliberal managerialism is impacting on the practices of any organisation. Either as a contracted consultant or an in-house facilitator, management educators are likely to 'move on' and are unlikely to have to see anything through to the end. They do not have to live so intimately with the consequences of challenging this system, although they too can experience the authoritarianism (Vickers 2001) and the pressures to comply. Are they just lighting fires where others may risk being burned?

It remains a dilemma: the extent to which the ethics of care (Tronto 1987, 1999) can be expressed by management educators in neoliberal managerialist organisations, what spaces can be created to manoeuvre and how managers and management educators exercise ethical judgement and action in the contained, controlled but volatile environments of complex public sector neoliberal organisations.

## Concluding Thoughts

The practice-as-complexity perspective demands considerable reorientation of management education practice. The perspective foregrounds tacit knowledge and its development by learning in situ and the shift in awareness and learning which comes from confronting situations for which current levels of tacit and explicit knowledge are not sufficient. It also centres volatility and probability rather than prescription and the notion that every iteration of a practice is a new moment of practice as well as a recognisable pattern.

Such an orientation directs management educators towards processes for scanning and analysing the context in order to take account of the finer details of the situation of managers, for assisting managers to recognise and evaluate their learning on the job and for facilitating the identification of sites of struggle and contestation for managers and their staff in order to develop strategies with respect to these sites. They have also to interrogate their own decisions about pedagogy and content and their relationships with the organisation for which they are working as consultant or employee.

All of these processes favour interaction and negotiation in situ rather than predetermined processes, fixed content and preconceived models of management. They also call into question the place of activities traditionally undertaken in the name of management education. These now need to be researched, with a view to developing enriched understandings of the practices of management education which are centred in an understanding of practice as a complex adaptive system.

## Endnotes

1. Boundaries for practice and sub-practice are dependent on the frame of reference of the analysis.
2. German for 'being/existence' and Heidegger's term for the essence, the 'Being' of human existence.

3. In Australia, VET policies, for example, demand that students receive information in writing about the competencies, the assessment tasks and performance indicators for any program, prior to commencement. Most Australian universities have policies and practices with a similar goal.
4. Referencing Aristotle, Carr (2005: 340) defines praxis as 'morally informed action, in and through which ethical goods are realised' and phronesis as 'practical reasoning based on wise and prudent judgment'.

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# Chapter 10
# Governing Learning Practices: Governmentality and Practices

**Ann Reich and John Girdwood**

## Introduction

This chapter explores learning practices in contemporary workplaces in advanced liberal democracies. It takes a practice-based perspective drawing on the later work of Foucault (1991a, 2007) and governmentality writers (Dean 2010; Donzelot 2008; Lemke 2001; Miller and Rose 2008; Rose 1999b; Rose et al. 2006) to foreground the power relations and interconnectedness between learning practices in local sites and national industry and enterprise reform programmes which govern workers and shape their identities and subjectivities in advanced liberal ways. Using analytical and conceptual tools of these writers, including an analytics of governmentality, assemblages and translation, the regime of learning practices in a local site is analysed to illustrate the fruitfulness of this perspective for understanding learning practices in contemporary workplaces.

Learning practices[1] are understood here as particular work practices which have traditionally been the specific domain of specialist professional trainers in complex work organisations. These learning practices have often utilised training and development techniques focused on the individual worker's learning and skills acquisition. Learning practices have been theorised from various perspectives

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in the interdisciplinary space of workplace learning or work and learning research (Fenwick 2006) – from psychological, individualised training approaches to sociocultural, post-structuralist (Malloch et al. 2011) and, more recently, practice-based approaches. As a contribution to work and learning research, we are interested in examining how shifts in learning practices can be understood as linked to particular political rationalities, governmental technologies and techniques, expertise, knowledges and identities in local workplace sites. Using an analytics of governmentality and the five interrelated domains of the assemblage (Dean and Hindess 1998), we illustrate through a study of professional child protection workers in NSW, Australia, how there has been a shift from learning practices as the specific domain of specialist professional child protection trainers to learning practices as self-managed responsibilities that are intricately entwined with child protection workers' and managers' everyday work practices. We argue that this shift in learning practices was constituted in regimes of practice shaped by neoliberal reform programmes associated with the new public management and aimed to restore trust in the management of children at risk. Technologies of learning, including 'the learning organisation'(Reich 2002), were assembled in these regimes of practice to govern or 'actively "make up" people' (Du Gay 1996: 54), with a new identity of the worker-learner (Boud and Solomon 2003; Reich 2008). The worker-learner identity was (re)formulated with neoliberal political rationality and an active, entrepreneurial subjectivity in this post-fordist workplace (see Reich 2002) in which all earning was linked to learning – '(l)earning' (Edwards and Usher 2008). The professional child protection worker as a worker-learner was responsible for their learning practices as integral to their child protection practices.

As a practice theory perspective (Reckwitz 2002), we suggest that the strength of using an analytics of governmentality and the conceptual tools of the assemblage and translation for understanding learning practices in contemporary work organisations is that it draws our attention to and makes visible the often taken-for-granted linkages beyond a particular site being studied. It provides practitioners with intellectual tools that 'enable them to make sense of the situations in which they [find] … themselves: the ways of thinking and acting that they were obliged to enact and the cramped spaces and conflicting practices they inhabited' (Rose et al. 2006: 94). As a contribution to practice theory perspectives on practice and learning, it thus assists in the exploration of these 'cramped' and conflicting practices of organisational work life.

This chapter commences with briefly highlighting this critical approach to practice taken up by governmentality writers and sets out key analytical tools used in this chapter – analytics of governmentality, the five interrelated domains of the assemblage of practice and translation. An illustration follows which uses these conceptual tools to analyse the assembling of the professional child protection worker as worker-learner and the embedding of learning practices in this new identity. The chapter concludes with how this perspective contributes to understandings of learning practices and to practice-based studies.

## Practices, Regimes of Practice and an Analytics of Governmentality Perspective

As a practice theory perspective (Reckwitz 2002), an analytics of governmentality has practices as the 'target of analysis … [not] institutions', 'theories' or 'ideology' (Foucault 1991b: 75). The aim of this type of analysis is to organise

> the conditions which make these [practices] acceptable at a given moment; the hypothesis being that these types of practice are not just governed by institutions, prescribed by ideologies, guided by pragmatic circumstances – whatever role these elements may actually play – but possess up to a point their own specific regularities, logic, strategy, self-evidence and 'reason'. It is a question of analyzing a 'regime of practices' – practices being understood here as places where what is said and what is done, rules imposed and reasons given, the planned and the taken for granted meet and interconnect (Foucault 1991b: 75).

This perspective in analysing local practices foregrounds the regularities, logic or reason which emerges in the regimes of practices. As Dean (2010: 31) suggests, regimes of practices are

> simply fairly coherent sets of ways of going about doing things. They are the more of less organized ways, at any given time and place, we think about, reform and practise such things as caring, administering, counselling, curing, punishing, educating and so on (Foucault 1991b). Regimes of practices are institutional practices if the latter term means the routinized and ritualized way we do these things in certain places and at certain times. These regimes also include, moreover, the different ways in which these institutional practices can be thought, made into objects of knowledge, and made subject to problematizations.

This understanding of practices as interconnected in regimes of practices focuses our attention to the routinised and ritualised way things are done in a local site at a particular time and how practices, such as learning practices, are reformed, practised, thought of, made objects of knowledge and problematised. A key aspect of this analysis is how regimes of practices are 'organized practices through which we are governed and govern ourselves' (Dean 2010: 28). Foucault's neologism, governmentality – the 'conduct of conduct' as 'a form of activity aiming to shape, guide or affect the conduct of some person or persons' (Gordon 1991: 2), including governing the self and governing others, is a very useful analytical concept to understand how regimes of practices become part of the worker's identities and subjectivities and ways of governing themselves and others. This rationality, or way of thinking, becomes 'governmental' when it seeks to become technical and to insert itself into practice (Rose 1993). Governmentality in the broader sense is therefore the 'techniques and procedures for directing human behaviour. Government of children, government of souls and consciences, government of a household, of a state, or of oneself' (Foucault 1997: 82 cited in Rose et al. 2006: 83). Foucault also used governmentality in another more specific sense. It was concerned with government in the political domain as an art of rule (Gordon 1991). Governmentality here 'marks the emergence of a distinctly new form of thinking about, and exercising of, power in certain societies' (Foucault 2007: 98–110 cited in Dean 2010: 28).[2] This has

provided insightful, critical and historical analyses of the shifts in Western governments over the past century, tracing the effects and reinventions of liberal government, the formation of the 'social' (Rose 1999b) and the emergence of neoliberalisms and advanced liberalism[3] in many OECD nations. The discussion in this chapter utilises governmentality in both these senses. It focuses on how workers were governed and governed themselves to make up the worker-learner identity, with learning practices embedded in their everyday work practices.

As an intellectual tool to assist in this analysis, an analytics of governmentality focuses on problematics of government and how and under what historical conditions regimes of practices 'come into being, are maintained and are transformed' (Dean 2010: 31). Integral to our understandings of governing learning practices is the concept of assemblages of practices, a term that refers to the links of 'material content (passions, actions, bodies) and enunciations (laws, plans, statements) not in linear fashion but rhizomatically' (Deleuze and Guattari, 1987: 85–91 in Li 2007: 265). It is usefully understood, following Dean and Hindess (1998), to consist of five interrelated domains:

- Forms of problematisations – the ways in which the problem is constituted
- The ethos of these governmental practices, such as neoliberalisms
- Modes of reasoning including the psy-sciences (psychology and its affiliates) and accounting and auditing
- Techniques and technologies, such as technologies of learning and new public management technologies and techniques (Reich and Girdwood 2010)
- The shaping of identities and subjectivities such as the entrepreneurial worker-learner (Reich 2008)

Further, translation is an analytical concept which particularly assists our understanding of how learning practices are governed at a distance in contemporary advanced liberal workplaces. Translation can be understood as the linkages between

> micro-practices and what 'men call "government" in great buildings and capitals'? How is it possible for the calculations, strategies and programs formulated within such centres to link themselves to activities in places and activities far distant in space and time, to events in thousands of operating theatres, case conferences, bedrooms, classrooms, prison cells, workplaces and homes? … [that is] 'translation' (Rose 1999b: 48).

Translation is the process by which enterprise reform programmes are made thinkable and governable and new identities formulated and assembled in local workplaces.

The following discussion of the shift in learning practices and how the professional child protection worker-learner was assembled in the regimes of learning practices indicates the utility of the five interrelated domains of assemblages of practice and translation as conceptual tools. It foregrounds how these learning practices are reformed, practised, thought of, made objects of knowledge and problematised and how new identities and subjectivities constituted. It privileges the interconnectedness of the relations of power and the authority of specialist knowledge and expertise associated with these regimes of learning practices.

## Assembling the Professional Child Protection Worker-Learner

The research site was the child protection field in NSW, Australia in late 1990s,[4] an important governmental responsibility of the state for the security, care and protection of the child population. It employed a range of social welfare and health professionals in state and not-for-profit agencies. The late 1990s was a time of major neoliberal public sector reforms. There was a shift from public administration and an ethos of public service to new public management with an ethos of entrepreneurialism and customer service. In the child protection field, a 'crisis' in the government of the child emerged in popular discourses with a hysterical and heightened media and public opinion focus on child abuse, including a Royal Commission into Paedophilia (Wood 1997). Popular discourses (television and newspapers) on child protection and their translation effects in many reports investigating child protection policy and procedures were reinforced by events like the publicised death of a child (see NSW Child Death Review Team 1997). This popular discourse focused on the incapacity of NSW government agencies, especially the child welfare department, to prevent child abuse, and held it to be responsible for yet another death of a child. It also touched on the hearts and souls of the NSW public, their feelings about innocent, defenceless children and their desire for more effective government-regulated care and protection.

It was in this complex milieu that regimes of learning practices shifted through translation of new public management reform programmes, from the domain of specialist professional trainers to being embedded in the everyday responsibilities of professional child protection workers' practices. These workers were assembled with the identities of the worker-learner and entrepreneurial subjectivities. The following discussion will briefly focus on each of the five interrelated domains of the assemblage, while acknowledging the difficulty of separating each domain and the necessary linkages among the domains.

1. The first domain is the *problematising* of the 'skilled' professional child protection worker. The professional child protection worker was *problematised* in the popular discourses of the 'crisis in child protection', as described above. These discourses included the criticisms of child welfare policy and practices and the competencies of professional child protection workers. It was most 'forcefully articulated in and via child abuse inquiries' (Parton 1998: 16). For example,

   > [in relation to the death of a child], [i]t is understandable that the community turns angrily to the child protection workers who are meant to be preventing this kind of tragedy and asks them to explain why they failed (Munro 2008: 11).

   The problem of governing child protection services and its workers became constituted as a problem of training (or learning). The recommendations of key reports on the child protection system (Cashmore et al. 1994; Wood 1997) made training/learning a priority solution for the reform of the 'skilled' worker.[5] For example, in the Wood Royal Commission report on police corruption and paedophilia, a significant proportion of the recommendations directly reinforced

training and learning as a necessary policy reform. Training and learning thus became a key strategy in governing and regulating professional child protection workers with the aim of making them efficient and cost-effective managers of children at risk and responsible through their solving the problem of child abuse and neglect. In these particular sites, in which public sector reform programmes were also actively governing workers, and technologies of the learning organisation were prominent, 'reformed' learning practices of the worker-learner emerged and marginalised the specialist child protection training practices.

These child protection agencies, as public sector organisations, were also included as objects of advanced liberal new public management enterprise reform programmes. Techniques, such as 'privatisation of government services, the introduction of compulsory competitive tendering and the framing of social policy in terms of cost-effectiveness and efficiency criteria' (Tomison 1997: 28), were deployed to translate and make these political reform programmes practicable. The professional child protection worker as a 'public service worker' was problematised in these policy discourses as inefficient, bureaucratic and needing to become entrepreneurial and an 'enterprising worker' (Du Gay 2009). Here, the 'solution' was regimes of learning practices which constituted the responsible and entrepreneurial worker-learner and cost-effective, economical learning practices, embedded in everyday work.

2. The second domain in the assemblage focuses on the shifts in the *ethos of government* from social liberal/welfarist to a neoliberal ethos of government assembled in advanced liberal regimes. This shift had a significant impact on the conduct of professional child protection workers as they became subject to competitive market regulation with the privatisation of services, compulsory competitive tendering and management regimes dominated by neoliberal economic reasoning and new public management discourses. With the dismantling of the social liberal/welfarist project of nation building in Australia, professional child protection workers came to 'personify all that was problematic with welfarism' (Parton 1998: 13). It made their professional claims of competency vulnerable to criticism, particularly in the contexts of the formal inquiries and the ongoing policy discourses of the 'crisis'. The professional child protection worker was made problematic in both discourses of the crisis of child protection and in the new public management reform programmes. In these advanced liberal regimes, the worker-learner subjectivity 'was constituted as always learning … never with a sense of expertise' (Fenwick 2001: 79).
3. The third domain involves the shifts in *modes of reasoning*.[6] The modes of reasoning refers to both formal disciplinary knowledge and expertise and practical know-how. In this site, the orderly shift to advanced liberal regimes for governing professional child protection workers as worker-learners required new modes of reasoning and authoritative expertise and experts in order to govern them at a distance. Two key areas of expertise became dominant – expertise in psy-sciences to 'govern the soul' (Rose 1999a) and expertise in accounting and auditing associated with new public management. The expertise of the psy-sciences aimed to assemble flexible, active and entrepreneurial subjects and was associated with

human resource management and development techniques such as performance appraisal and management systems. These systems incorporated learning plans and learning contracts as complex processes to govern workers through persuasive techniques in which they 'govern themselves' in these particular ways if they desired to gain and maintain a job and a future. The active worker-learner subject was to now continually learn and gain 'new skills' that could be calculated and their performance quantified, with the future promise of additional pay – a process of 'affirming and reaffirming [one's] worth by perpetual learning – in many cases through training and retraining since to stand still, to fail to update oneself, is to move backwards, and therefore fail to fulfil one's obligations or responsibilities' (Usher and Edwards 2007: 86). Similarly through new public management, the modes of reasoning and expertise associated with economic reason, dominant in corporate management thinking such as accounting and auditing, developed new techniques for accounting for human conduct in a similar way that property and goods had been accounted and audited (Hopwood and Miller 1994). The professional child protection worker-learner emerged as needing to continually learn to continue to earn. This would be their own responsibility without necessarily the support and direction of specialist child protection trainers and their specialist child protection knowledge and expertise.

4. The fourth domain involves the linking of *technologies and techniques of government* to the other domains, as key mechanisms for governing at a distance and making practicable the governmental programmes and policies through their translation to these local sites. Technologies, 'in the sense of complex heterogeneous relations amongst disparate elements, stabilized in particular ways' (Barry et al. 1996: 13), help us to connect exercises of power at the molecular level, such as in workplaces, with the strategies to programme power at a molar level, such as in government departments, a government policy paper, legislation and other programmes of reform (Barry et al. 1996). In this site, the learning organisation as a key *technology of learning* was linked to the neoliberal policy reason of new public management and used in attempts to restore trust in the NSW child protection system and the trustworthiness of (re)trained workers implicated in the crisis of child protection. The emphasis in organisational training and workplace learning was on the technologies of the learning organisation, rather than specialist training practices. Text-based discourse published by child protection organisations (Reich 2002) at the time illustrated how the learning organisation was utilised in reform programmes to shape active and flexible identities of workers, perpetually involved in lifelong learning. For example, as one large organisation's learning and development plan stated:

> in a learning organisation the learning occurs within individuals and is self-motivated (Reich 2002: 228).

Other advanced liberal technologies and techniques were deployed in attempts to shape public opinion and restore trust in the child protection system and agencies (such as the schools, the churches, welfare homes, the Scouts), which had been exposed daily in the Wood Royal Commission and broadcast through

the popular media. It included advanced liberal techniques popular in new public management discourses and its associated management technologies and techniques of risk, such as assessment and audit. Audit is a key technology of advanced liberal regimes of governing (Power 1997) for constituting and making trustworthiness practical in the professional worker. 'In the government of child welfare, audit becomes one of the key mechanisms for responding to the plurality of expertise and inherent undecidability for the various truth claims about risk' (Parton 1998: 20). As Parton (1998: 21) further notes,

> [r]isk is rendered manageable by new relations of regulation between the political centres of decision making and the frontline social worker, via the introduction of a variety of new procedures, forms, devices and systems for making and noting decisions and thereby making them visible. In the process, the entities to be audited – social workers and other professionals – are themselves transformed in order to make them auditable Where the key concern is risk, the focus becomes not making the *right* decision, but making a *defensible* decision, where the processes and procedures have been followed and where the range of misery and need coming the way of child welfare agency can be prioritised and contained.

This challenged the authority of the professional child protection worker's professional knowledge, expertise and modes of reasoning, with legal and risk management discourse and reasoning gaining dominant discursive authority. In this milieu of making the professional child protection worker responsible for children at risk, processes for accountability and auditability (including additional training and probity checks for all workers with children) were intensified, creating a climate of additional monitoring at a distance in which professional child protection workers felt there was limited space for 'learning at work' – any work conduct deemed as a 'mistake' became associated with the risk of becoming front-line media headlines about the failure of government and its constituent communities to protect the child at risk.

The discursive struggles over the dominance of the learning organisation as a technology of learning were resisted by trainers in child protection agencies using 'specialist child protection training' discourses as counter discourses. As discussed in Reich (2002: 228), 'trainers resisting these discourses argued for the maintenance of specialist child protection training strategies … given the complexity and nature of child protection work'. Further, they evoked discourses challenging the reliance on the ability of managers, many without child protection expertise, to 'facilitate learning' as part of the learning organisation approach, emphasising the professional expertise necessary for effective child protection training. However, the advanced liberal regimes for governing workers as learners made problematic the authority of professional expertise in these child protection organisations generally. It challenged the specialist expertise of the child protection trainers, privileging modes of reasoning associated with human resources management and new public management in the organisational discourses of learning and training and reassembling their identities as learning and development consultants.

5. The fifth domain is the *(re)assembling of the subjectivity and identity of the worker-learner.* As briefly mentioned in the discussions of the other four domains,

the regime of learning practices governed the professional child protection worker in advanced liberal ways to assemble a new identity of the professional child protection worker-learner with an entrepreneurial subjectivity. This complex subjectivity was (re)shaped by the technologies assembled with the regimes of learning practices, including those associated with new public management and the learning organisation. These technologies (re)shaped the identity of the worker, from public servant to business-like entrepreneur, who was required to produce business plans and key performance indicators for 'outcomes' which were very difficult to practically calculate, account, evaluate and audit in a field like child protection. The performance indicators included case mortality rates, response times and risk category assessments. The professional child protection workers became the collectors of these numbers, which were key mechanisms for governing the child protection system and, as key workers in this system, governing themselves. The demands of these new auditing systems, and the associated statistical and other record keeping, reconstituted the front-line case worker from primarily working in the field with abused children and their families to primarily a 'desk-bound computer data entry operator'. Many aspects of their work subjectivities required perpetual learning – of the new technologies – record keeping and a new way of acting – as a risk manager of themselves and their organisation. The technical requirements of the audit displaced professional expertise, and these technologies of trust and mistrust generated 'a spiral of distrust of professional competence' (Rose 1999b: 155). This spiral of mistrust of professional competence and an associated milieu of a 'culture of blame' was evident in the discourses of Royal Commissions, inquiries and public opinion and exemplified the 'cramped and conflicting spaces' (Rose et al. 2006) of the professional child protection workers being spaces not conducive to the idealised environments suggested in the learning organisation literature. As Munro (2008: 11) suggests in relation to such a milieu,

> the damaging consequences of inquiries that look for culprits is that they reduce the scope for learning. They pay less attention to the wider practices and resources in the system that create the conditions in which a front-line worker ends up making a mistake. Child protection needs … a no blame approach … so that workers are willing to report lapses and the system can learn where small problems are showing up and resolve them before serious tragedies occur.

For these professional child protection workers, the technologies of the learning organisation were reinforcing the active, responsible worker-learner, taking responsibility for their own learning and learning through their everyday work practices. Their worker-learner identities were continually challenged in the conflicting discourses of active worker-learner and distrusted professional. Their regular practice was an ongoing accommodation of these challenges to their professional work identity, their claims to professional expertise and the calculated risk of making professional self-managed decisions in the milieu of 'crisis' and a 'culture of blame'.

## Discussion: Analytics of Governmentality and Learning Practices

The example of child protection work practices described above provides insights into how an analytics of governmentality perspective can foreground the complexities of the regimes of practices governing the professional child protection worker and their learning practices. The neo-managerial programmes and associated technologies and techniques of the new public management reforms assembled the entrepreneurial flexible worker-learner subject who was continually learning at work to maintain their job competitiveness. Their professional work subjectivities as worker-learners made them demonstrate the acquisition and competent performance of additional skills in order to gain pay and promotions and, in many instances, to meet performance management standards and targets in order to maintain job security. This new worker-learner identity was 'an active, autonomous and continual learner, never "skilled" but continually needing to invest in their own human development and "human capital"' (Reich 2002: 220). Simultaneously, as workers in child protection organisations, the discourses dismantled the 'skilled' professional child protection worker and (re)assembled the worker-learner who was always in need of and desiring training to solve the crisis for themselves and others in child protection work. The technologies of the learning organisation became connected to the new public management reform as shaping the learning/training practices away from specialist training by expert child protection professionals to learning being embedded in everyday work practices, supported by generalist managers.

We suggest that the example above highlights the ways in which an analytics of governmentality and the related concepts of five interrelated domains of the assemblage and translation can contribute to (re)conceptualising learning practices and to practice-based studies. It particularly assists in providing intellectual tools to make visible the interrelatedness of practices and foregrounds the patterns of power relations and forms of governing, connecting the local site to national, industry and enterprise reform programmes and particular forms of political reason, such as neoliberalism. As Rose et al. (2006: 101) suggest in emphasising the focus of an analytics of governmentality on mundane practices of a broad range of professionals and local sites:

> What remains salient and challenging about this approach is its insistence that to understand how we are governed in the present, individually and collectively, in our homes, workplaces, schools, and hospitals, in our towns, regions, and nations, and by our national and transnational governing bodies requires us to turn away from grand theory, the state, globalisation, reflexive individualization, and the like. Instead, we need to investigate the role of the gray sciences, the minor professions, the accountants and insurers, the managers and psychologists, in the mundane business of governing everyday economic and social life, in the shaping of governable domains and governable persons, in the new forms of power, authority, and subjectivity being formed within these mundane practices. Every practice for the conduct of conduct involves authorities, aspirations, programmatic thinking, the invention of redeployment of techniques and technologies.

In the discussion below, we will focus on two of the ways this perspective contributes to understandings of learning practices – first, that learning practices are

understood as regimes of practice and, second, that learning practices are understood as subject to programmes of reform.

Understanding *learning practices as regimes of practice* focuses our attention on how everyday learning practices are governed in a particular place and time by technologies and techniques linked to political rationalities which make up new worker identities. For example, in the child protection study described above, learning practices were constituted and made practical with neoliberal subjectivities of the entrepreneurial worker-learner linked to the technologies of the learning organisation. These technologies and subjectivities reflected 'the prominence since the 1980s of political rationalities placing emphasis upon the self-government of individuals, and seeking to limit the incidence of "the state" upon the lives and decisions of individuals' (Miller and Rose 2008: 51). Agencies and authorities attempted to shape and direct the conduct of individuals and the shaping of the identities (learner, on-the-job trainer, manager, professional) and subjectivities of those whose conduct is to be governed, that is, to 'make up' people. Organisational learning practices can therefore be understood as shifting to become an integral part of a worker's identity as a worker-learner, governed through accountability techniques such as learning plans tied to organisational performance management techniques of the 'accountants of human resources' – the human resources management and human resources development practitioners. Significantly, learning practices became embedded and embodied with this new subjectivity. As Miller and Rose suggest, 'new forms of subjectivity … [are] embodied in a set of practices from which they are inseparable' (Miller and Rose 2008: 4).

By foregrounding relations of power as productive within regimes of practices, an analytics of governmentality also assists in troubling concepts such as learner empowerment implied in technologies of the learning organisation. From this perspective, rather than understanding the 'empowered' worker-learner as having acquired power, it is understood as a shift in the forms and configuration of relations of power – from disciplinary power prominent in teacher-centred approaches to governmentality as a form of power in which the worker-learner is governed at a distance, governing themselves and being responsible for their own learning.

Second, this perspective emphasises the importance of understanding the complex linkages between *learning practices in local sites and governmental programmes* and their effects. It provides a more nuanced conceptualisation of the relationship between policy and practice beyond the policy/practice binary. Programmes here are understood, following Dean (2010: 43), as all the attempts 'to regulate, reform, organize, and improve what occurs within regimes of practices in the name of specific sets of ends articulated with different degrees of explicitness and cogency'. Importantly, programmes of governmental reform need to be made technical through technologies and techniques to be translated to local workplaces. In the child protection study, it was the multiple reform programmes of public sector and child protection reform which governed the professional child protection worker simultaneously through a multiplicity of technologies and techniques – the learning organisation, the human resource management techniques, the new public management technologies and the techniques of auditing and accountability. The effects were

sometimes the 'conflicting and cramped spaces inhabited' (Rose et al. 2006: 94) by the professional child protection worker-learner.

This perspective also provides intellectual tools to problematise and make objects of 'change management' programmes, which have become so popular in advanced liberal regimes of government. 'Change' has become an enabling and organising concept in management reason about the future. Shifts in liberal regimes of government, such as to advanced liberal regimes, have made necessary a reformulation of the character make-up of the worker (Hacking 1986) as an (re)educated and educable subject (Girdwood 2007). For example, the character make-up of the free and enterprising manager (or teacher) of the state-owned enterprise became the object and subject of 'change management' programmes, making a shift from the management mentality of public administration to that of market entrepreneurship necessary for their future job and economic security. Similarly, as illustrated above, for the professional child protection worker, the change management programme, using the technology of the learning organisation, constituted the worker-learner, ever learning to maintain their job security. But government in this view can be seen as a risky and calculated process of striving towards an 'ideal', containing elements of failure. This opens up problem spaces and new possibilities for oppositional and other counter forces to dominate regimes of practice, as discussed above in relation to the professional child protection workers.

## Conclusion

This chapter has explored the shifts in learning practices in contemporary workplaces through the illustration of a child protection study in NSW, Australia, using an analytics of governmentality. Understanding learning practices as regimes of practice and subject to governmental programmes of reform focused our attention to how these shifts in learning practices are intricately embedded and embodied in the new identity of the professional child protection worker-learner. The public sector and child protection reform programmes linked to advanced liberal regimes of governing were translated in this regime of learning practices and made technical and practicable through the multiple technologies of the learning organisation and technologies and techniques associated with new public management. The learning practices of the worker-learner were governed at a distance through being made responsible in these programmes by governing themselves in these advanced liberal ways.

As a contribution to understanding learning practices in contemporary workplaces and as a contribution to practice-based studies in work and learning research, an analytics of governmentality perspective and the conceptual tools of the assemblage and translation assists in foregrounding the relations of power and the complex linkages between the mundane and routine activities and actions, 'what was said and done' (Miller and Rose 2008: 21) in local sites, and programmes

of reform and centres of power and calculation. It helps us to see the patterns, regularities, logic and reason of the regimes of practices in local sites and patterns in the translations to multiple sites. This translation is different in each local site, but certain regularities and common forms and formulae become visible. For example, the particular technologies of the audit linked to new public management reason have been translated in recognisable and regular ways in multiple sites. The shaping of identities and subjectivities by these technologies and techniques as self-governing and entrepreneurial in contemporary workplaces implies that practices, including learning practices, can be usefully understood as inseparable from these new subjectivities. An analytics of governmentality also opens spaces to make visible the taken-for-granted character of practices and their transformations and 'to highlight the points at which resistance and contestation' (Dean 2010: 49) occurs.

## Endnotes

1. We use the term learning practices as an acknowledgement of the 'learning turn' in work and learning research (Fenwick 2006) and the shift to learning as part of everyday work discussed in this chapter. In earlier writing, the term training practices and technologies of training was used (see Reich 2002).
2. For a more detailed explanation of governmentality and an analytics of governmentality, see Dean (2010) and Miller and Rose (2008).
3. Neoliberalism is understood, following Rose (1993) and Dean (2010), as not an ideology but

   > more than a phenomenon at the level of political philosophy. It constitutes a mentality of government, a conception of how authorities should use their powers in order to improve national well-being, the ends they should seek, the evils they should avoid, the means they should use, and crucially, the nature of the persons upon whom they must act.

   Advanced liberalism designates the broader realm of the various assemblages of rationalities, technologies and agencies that 'constitute the characteristic ways of governing in contemporary liberal democracies' (Dean 2010: 192–194). Thus, we distinguish between neoliberalism as a dominant rationality and the society of liberal democracies that have gone beyond 'the social', using the term 'advanced liberal' or advanced liberalism to describe the latter.
4. A fuller discussion of how child protection workers were governed through a technology of training – the learning organisation is detailed in Reich (2002), and the ways in which the discourses of industrial relations and vocational education and training reforms in Australia in the 1990s linked to political discourses of international competitiveness, assembled the worker as learner subjectivity is detailed in Reich (2008).
5. See Reich (2008) for more details about the ways the skilled worker was problematised in the discourses of national competitiveness and in the discourses of industry, industrial relations and vocational education and training reforms.
6. Modes of reasoning are understood here as knowledgeable discourses, such as the systems of thinking linked to academic disciplines like economics, psychology, education and accounting or the expertise and know-how of specialists – trainers, managers, workplace assessors, mentors and coaches. But it is through the techniques and technologies of government, such as the types of training or learning, the ways of collecting information and the quantitative and qualitative calculations (Dean 2010) that enable objectives and plans to be realised.

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# Chapter 11
# Rhetorical Activation of Workers: A Case Study in Neo-liberal Governance

**Andreas Fejes and Katherine Nicoll**

## Introduction

Practices are key to the mobilization of workers as specific kinds of subjects. Within practices, the rhetorical work of language is a key tool. As a preliminary to the data analysis of this chapter, we will begin by exploring in some detail what we mean by practice and the nature and role of the rhetorical work of language – what Jonathan Potter calls its 'action orientation' (Potter 1996) – within practices.

A practice may be taken in the first instance as a customary or routine way of doing something, including the exercise of a profession. Drawing on the work of Foucault (2007), Dean (1994, 1999) and Rose (1999), practice can be understood as suggesting something more. Practices are routine ways of doing things, including at work, but they operate through regularities of action, within wider 'regimes' of practice, as the means through which we are governed and govern ourselves. A regime of practice is, from this perspective, the organized and routine way we do things and get things done, but it is also a means of 'government'. Here, government is understood as the exercise of power in the shaping of the conduct of others and ourselves – in the 'conduct of conduct' (Dean 1999: 10). It is in this broader sense that practice is to be understood in this chapter.

Practices are thus intrinsically bound up with the exercise of power. They exist within a complex set of relationships between power, identity (or subjectivity) and truth (or knowledge). Practices are always bound up with specific forms of truth

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(knowledge), which support and maintain them as reasoned practices. At the same time, practices are implicated with specific professional or work identities constructed through them. The exercise of power is thus not possible without the development of specific forms of truth that take the individual variously as their target. Thus, workers have knowledge of why they do what they do and develop this specific knowledge in support of their practice. It is then *through* truth or knowledge that power is exercised in practices. Identities and the ways people come to know who they are and what they do are formed through processes of 'subjectification' (Dean 1994: 165), whereby people are 'subjected' to knowledge through practices as they are constituted as subjects. A practice includes regularities of action – techniques, technologies and mechanisms – that are specific to it, together with the knowledge, language and rationalities that make subjects governable through them.

A practice is thus able to be identified through discursive elements that are linked as a regime of practice. Discursive elements are those regularities of action (techniques, technologies and mechanisms) together with the knowledge, language and rationalities required by them, regulations, mechanisms for administration, etc. A regime may be most densely focused and coordinated through routine institutional practices but is not equivalent to them. We can see this insofar as a regime can be identified in terms of elements that may be part of, but also linked to and through, the practices of an institution. Whereas a practice might be thought of as a routine way of doing things within a profession or vocation, here, a practice is always already embroiled in regimes that govern our thoughts, language and actions, as discourses.

In this chapter, we explore the rhetorical work of language in the construction of subjects, their actions and relationships (Fairclough 2000; Nicoll and Edwards 2004). Language here is taken to be intrinsic to practices – it operates within them, in the channelling of power, through rhetorical tactics. It is through such tactics that both knowledge and identity are 'built'. In examining how language acts through rhetoric, in the shaping of conduct, this chapter suggests that a broader understanding can be gained of how we are governed through knowledge and hence be better able to govern ourselves.

The chapter approaches practice by combining a focus on language and resources from rhetorical analysis (Potter 1996) with a governmentality perspective (Foucault 2007; Fejes and Nicoll 2008). Such an approach, focusing on the rhetorical tactics that emerge as regularities of language within practices, is intended to provide a more specific understanding of how we are governed and govern ourselves in workplaces. Rhetorical tactics are, we argue, linked within and through other discursive elements. But the specific rhetorical tactics that we identify here are, we suggest, highly significant in revealing how power operates through regularities of language and help bring forth specific forms of active entrepreneurial workers. By providing an account of what goes on in the exercise of power in this way, through identifying regularities in the rhetorical tactics of language interaction in the workplace, we argue that it becomes possible to question the taken-for-granted ways we think about practices in workplaces.

A regime of practice cannot then be reduced to a set of specific relations or problems. It is multiform, consisting of multiple and heterogeneous elements with different historical trajectories. It is polymorphous in its relations and bears upon a range of differing problems. Thus, a modern regime of practice of care focuses on a range of issues including schooling, support for a range of people who are

marginalized through their situation, as well as physical care for the sick, infirm and elderly. A regime of practice of care points to a domain of elements including discourses of care, management, learning and administration. It includes institutions and architectural arrangements for care, regulations and laws protecting those who work in care and are cared for, mechanisms for administration, scientific knowledge of care, propositions, values and morals about care and care activities. All of these come together to focus on those who are made objects of and subject to care work and care (cf. Foucault 1980). This relationship between elements is not the outcome of a strategy put in place by any particular person, group or government. Rather, it is a collection of dispersed activities, objects and ideas that have come together to operate powerfully *as* strategy. There is therefore an empiricism to this which points to the differing relations of architecture, the application of theory and so forth, which are brought to bear on problems of the care as well as those of care for the elderly.

In the first three sections of this chapter, we draw selectively on examples from the wider analysis of field work data from a research study that has been reported elsewhere (Fejes 2008a, 2010, 2011; Fejes and Andersson 2009; Fejes and Nicoll 2010). This was a study conducted by one of the authors in a nursing home for elderly people in Sweden. The home is situated in a municipality that draws heavily on a discourse of new public management through its deployment of a purchaser-provider model. The examples of field work data that we select illustrate some regularities of language interaction that emerge in the interaction between a manager and her employees in this specific workplace. The specific rhetorical tactics employed function, we argue, as a technical means for attempts at the shaping of conduct.

The empirical material consists of field notes taken by one of the researchers during 13 visits to the nursing home. These record the daily work of one of the work groups at the home, the work of the manager and staff meetings between the manager and her work groups. Thus, this material is not reporting on transcriptions of actual interactions taking place; rather, they are representations of the researcher about the interaction that takes place. Thus, the material does not allow for interrogation of direct language interactions as might be carried out in a formal conversation analysis, for example. Rather, we draw on a governmentality approach combined with elements from Potters' (1996) rhetorical analysis in order to provide a space from which we can speak about how activation of workers as particular kinds of workers is being done discursively and with what effects.

The specific technique we identify, explored in the first three sections of this chapter, is the technique of invitation. Techniques are the technical means by which we are governed and govern ourselves. A technique of invitation 'requires' as it invites the worker to be active and is mobilized by the manager. This technique draws on rhetorical tactics that do a number of kinds of work: they build the entitlement of the worker to have particular knowledge and speak knowledgeably on specific topics; they build responsibility for this; they internalize specific problems as those of the worker; and they build the worker as a particular object or 'thing'. In the fourth and fifth sections of this chapter, we theorize this characterization and analysis of technique and tactics in terms of some of the wider elements that constitute a regime of practice of elderly care in this context. The chapter ends with some reflections on the significance of this kind of analysis in considering practice.

## Working Through Practices of Invitation and Rhetoric

The exploration of a technique of invitation and rhetorical tactic that affords care workers an entitlement to speak knowledgeably on a particular solution to a problem begins with the following field note taken from the research study. The manager, Donna, has received a phone call from a trustee about one of the residents. The message is constituted by her as a problem that needs a solution:

> Directly after a phone call from a trustee who wants to have a lamp installed for his resident, Donna walks straight away to the unit to discuss with the care workers how to solve this problem. She asks them – 'how can we solve this?'
>
> (Field note from Observation 2)

By asking the care workers this question ('How can we solve this?'), Donna invites her care workers to join her – 'you' and 'I' together as 'we' – in finding a solution to the problem. This effects a positioning of them as already having ideas about solutions. It is a rhetorical tactic that affords, as it builds, the 'category entitlement' of these workers to have knowledge of solutions. Category entitlement is 'the idea that certain categories of people, in certain contexts, are treated as knowledgeable' (Potter 1996: 133). But, at the same time, even though some people – such as doctors or lawyers – may be treated as knowledgeable in specific instances, category entitlements can also be built up and undermined in interaction, in specific ways. In this example, a specific category entitlement is being built up.

Positioning her workers with entitlement to have knowledge and to speak of the solutions to this problem has several interrelated effects. First, it invites the workers' acceptance of that entitlement and knowledge. Second, it invites them to take up responsibility for solving the problem. Third, it invites them to pool their knowledge and work together on finding a solution. We can see how this invitation is taken up by these employees:

> After posing the question to the employees, a discussion emerges, while the manager is occupied with a resident. When she returns to the employees she agrees with their suggestion of solution to the problem.
>
> (Field note from Observation 2)

This technique of invitation and tactic in affording her workers' category entitlement is effective in two discrete ways. First, the language acts in and of itself – it works to position the workers in a particular way and make them responsible. Second, we can see that the language has effects in producing action on the part of the workers. By leaving the scene, the manager avoids any participation in the discussion that ensues. By this move, and by agreeing on her return with the workers' solution, she reinforces the reality of their responsibility in solving the problem that she has set.

This technique of affording category entitlement through invitation is mobilized again by Donna when she is in conversation with her administrator (Darlene) at the nursing home. Each Wednesday, she and her administrator have a meeting concerning staff who have been ill or applied for vacation and so forth. Here, Donna invites her administrator to elaborate problems as well as solutions. We can see in both the example of invitation with the carers (above) and with Darlene (below) that the

technique effects immediate action as well as leading to further specific activity. First, it positions workers as knowledgeable and responsible and affords them category entitlement. In this, it is what this language interaction does in building a specific reality of category entitlement, and how it works to build this, that is significant. Second, the workers respond to their positioning with action.

In the example below, the aim of the meeting and the interplay that builds and shapes Darlene's action in the interaction is revealing:

> Donna and Darlene have a meeting concerning the staff situation and about how the employees handle the organization of their days off. The meeting is a bit slow, but then Donna takes charge by asking questions of Darlene. According to Darlene, work team A only has one person who will have time off during Christmas, she thinks that work team B need to be better at planning their work days – 'They should be able to finish by half-past two during the day'. Donna agrees with this, and says that they should therefore keep those times!
>
> (Field note from Observation 5)

The administrator is positioned with category entitlement to specific knowledge of other employees and responsibility over judging how best to organize them. The invitation, steered through Donnas' questioning, is one that 'requires' an internalizing of the exercise of power by the self. The administrator is invited to work on her knowledge and herself, to activate and regulate herself, and she does this. By accepting her administrator's analysis and solution, Donna positions Darlene as responsible for this analysis as well as for the solution that she proposes. This is a specific activity for the analysis of problems and judgements over the best ordering of workers in space and time.

The cumulative effect of such regularities of language interaction in the workplace may well be the acceptance by the workers of the different category entitlements that they are afforded together with the knowledge and internalized exercises of power on the self that these entail – they may 'learn' to act in this way. At the same time, the differential entitlements appear to organize them hierarchically, channelling power strategically through differential entitlements to improve the effectiveness of combined activity. The care workers, on the one hand, in the first example, are invited to work together to solve a problem identified by the manager. The administrator, on the other hand, in the second example, is invited to analyze and resolve a problem in organizing the care workers more efficiently. In both cases, the manager exercises power through her invitation and the rhetorical tactic of affording specific category entitlements in the identification of problems and solutions of specific kinds.

A similar example can be seen in the following field note from a meeting in work group A. This is a problem over poor interaction between three of the 'residents':

> A discussion about a conflict between three residents emerges. These three are often nagging each other, or excluding one another from their social interactions. 'How can we solve this, can we help those who feel excluded?' Donna asks. In connection to this, and as part of the solution, another discussion emerges about how to refurbish the common room by changing dining tables between two floors. 'What do you think, should we suggest a change? What do you think the residents would say? Who will argue against this? Is there an argument we can use for changing the tables? We all need to have the same story', Donna says.
>
> (Field note Observation 10)

Once again, we can see how the care workers are invited by the manager to refine problems and propose solutions. They are again afforded the category entitlement and the knowledge and responsibility to do so. The care workers take up the invitation in their ensuing conversation. These invitations can also be seen as a way of shaping the carers into problem solvers who are able to both define and solve problems. They are to become self-reliant (cf. Peters 2001) and through this an active and entrepreneurial self emerges.

There are various further details that are rhetorically interesting in this field description. Donna again constitutes herself as a member of the group through her use of 'we', even though she continues to steer the conversation through questioning. This helps constitute the 'facticity' of the group through her repetition of the word 'group' in her language. Through this, she leads the workers to construct an account of change that is to be rhetorically organized to be convincing to the residents. An account constructed by thinking through the potential support and opposition that a change may receive prior to its deployment is much more likely to be convincing to an audience than one that has not had this treatment. The account is then to be constructed a priori so as to better persuade the audience to support it. This is quite a sophisticated rhetorical practice in the constitution of 'reality' that she is asking of her carers. It requires them to build a convincing argument, considered for its 'reasonableness' to the residents, where any future potential undermining has already been anticipated and the argument crafted so as to be protected from this possibility. In this case, it is to be an account that is shared by the work group in order that it might be more persuasive. Implicit in this suggestion then is a capacity for the construction of an account through rhetorical organization. The aim is not to tell the residents that they are not to exclude each other, but to get worker agreement over a 'story', through which resident agreement to a change in the layout of the tables becomes potentially likely. 'Reality' here is to correspond with the most useful argument in constituting agreement. It is the clients who are to be invited to agree, and this positions them as having 'knowledge' of a sort and related category entitlement to agree or disagree with the workers' suggestions.

## Internalizing Problems and Solutions

We turn our attention now to a further setting where knowledge of problems and their solutions is afforded and built. This time, the rhetorical tactics that we focus on are those of the 'internalization' and 'externalization' of the problem. By reframing the problem that is discussed so that it becomes internal to the group, the manager invites the group to learn to work on themselves so that they might be more effective. This kind of internalizing of the exercise of power involves the workers learning, through repetition, to work on themselves in specific ways.

Here, Donna, the manager of the elderly care home, invites her staff to staff meetings. Every fourth week, she holds a staff meeting with each work group. During these meetings, carers are invited to raise issues. Between meetings, the

group of workers list issues on a board in their office. This is then compiled into an agenda for each meeting. During the meeting, the carers' issues are first on the agenda, and the manager adds her items last. One of the carers chairs the meeting and another writes the minutes/takes notes. The framing of the meeting itself draws on the technique of invitation that we have noted earlier in its effects in the constitution of category entitlement, concomitant knowledge and the cultivation of responsibility. By asking the employees to define the agenda and having one of them chair the meeting, they are invited to be active, knowledgeable and responsible in defining the issues at stake. Mobilization of the technique of invitation is clearly illustrated during these meetings. In the following field note, the manager positions herself again as the one who asks questions and asks the carers this time to define both problems and their solutions:

> A few minutes into one of the meetings with work group B, Donna asks what items the work group wants to add to the agenda.
>
> *Work group member:* Our work schedule - how are we supposed to have time to do everything [?] We're worried we'll get back to the stress levels that we had before. It's ok now, but we're concerned about how this might end up
>
> *Donna* acknowledges their worries and promises to follow up on the [question of the] new work schedule herself.
>
> *Work group member:* We don't have time to do what we should as contact person.
>
> *Donna:* What do you do for a resident in your role as their contact person?
>
> *Work group member:* We take them for walks. We also do a lot of shopping for them.
>
> *Donna:* You shop for a total of twelve residents if I'm not mistaken.
>
> She asks them if it is possible to coordinate the shopping.
>
> *Work group member:* Yes, we do. But you can't shop for five to six people at the same time.
>
> *Donna:* Is five too much?
>
> *Work group member:* Yes, three is enough if you're by yourself.
>
> *Donna*: Is it possible to do [coordinate] the shopping in another way?
>
> *Work group member:* Shop for everyone at the same time
>
> *Donna*: Have you looked at how other nursing homes do it? Not everyone is as close to a shop as we are.
>
> *Work group member:* In Home Care they have a car.
>
> *Donna*: Maybe it's possible to borrow their car sometimes?
>
> The discussion continues and at the end Donna summarizes the problem and reflects about how it might be solved. As an observer, I felt that Donna was trying to get the care workers to reflect about solutions to the problem they raised. She agrees both with their definition of problems and solutions.
>
> (Field note Observation 3)

Here, we can see the rhetorical tactics of internalization and externalization at work. The workers initially identify the work schedule as the problem – they have

too much to do within the time available. This is a rhetorical move of *externalization*, which is a common device that acts to construct the problem as 'fact', but in a specific way. It puts the responsibility for the problem as outside the agency of the workers who are accounting for it (Potter 1996). Donna implicitly accepts the initial externalization as the problem through her initial promise to look into the work schedule herself. However, she quickly steers the conversation so that the problem becomes externalized in relation to herself and *internalized* as a problem of the worker. This is a defensive tactic, which turns worker attention onto themselves and their work organization as the problem to be solved.

The effect of this tactic is powerful. We can see this when we look at the tactics commonly drawn upon in empiricist descriptions to attribute agency to facts that are externalized. This is a common feature of the empiricist rhetorical repertoire that allows attribution of 'the data' with agency: 'the results show', 'the data support' and so on (Potter 1996: 157). Here, the reverse is happening: the workers want to attribute the work schedule with agency, but the manager reverses this move and attributes the agency to the workers.

At the same time, in the example above, the role of the worker as 'contact person' is being worked up, constituted as 'factual', 'real' and as able to be *categorized* in this way. This building of the worker as some specific object, some 'thing' is important to explore in some detail, as it begins to reveal the significance of the way in which categories of people are identified as this or that kind of worker.

## Building the Worker as Some 'Thing'

The categorization of the worker as contact person and internalization of the problem as within the agency of the worker are rhetorical tactics that both work to build the reality of the 'contact person' as it is described in the example above but only in so far as it is understood and treated as such in the practice of this interaction. 'Formulating *as* something brings the things into being only in so far as it is understood or treated as such in a particular interaction' (Potter 1996: 177, italics original). However, where this kind of invitation is repeated, it is reinforced, and the workers may come to view themselves in this way.

The category 'contact person' here is devoid of relational content – the person is a 'contact', a generalized object, rather than a 'friend', 'carer', 'companion' and so forth – and this may help keep the workers' subsequent descriptions of their work free of this kind of relational detail. If, by contrast, the worker is called 'carer', then the question would logically follow as to what care means in this context. How people are categorized is in itself a powerful rhetorical tactic. By beginning a description with certain objects already constituted within it, discussion over their legitimacy *as* objects becomes difficult (Potter 1996). Objects and the activities that flow logically from them can then become the focus of discussion, although not to the point that they can easily be questioned. The point at which this description starts and focuses attention is thus rhetorically highly important – the contact person,

here, takes people for walks and shops for them. Narrative accounts are generally organized in local detail in this way. We are already familiar with this technique within discourses of pedagogy. For example, in shifting the orientation from the object 'teacher' to the 'learner', the focus of attention shifts to the latter in a way that is difficult to argue against.

By constituting the 'contact person' as a generalized object, the effect is the constitution of individuals as a population, and tasks are afforded that are similarly individuated and generalized (Nicoll 2007). This is significant, as it is through just this rhetorical device of constitution of the individual as a member of a population that an individual is then able to be made subject to the norms of a population. A population is quite distinct from a group. The former indicates a number of individuals with shared characteristics, and the latter a number of people who work together or have relationships for some purpose. This rhetorical device provides for the intersection of biopower with disciplining power. These two forms of the exercise of power are the dual mechanisms for discipline and regulation that Foucault identifies as intrinsic to the exercise of power in our time. Regulation is achieved through the exercise of a biopower that operates through the constitution of populations that are normalized, and disciplinary power individualizes in order that it may subject (Dreyfus and Rabinow 1982). Subjects are made available for supervision and administration.

In the case we are examining above, although this is a simplification, it is biopower that is exercised through a categorization of the worker and identification of a set of job tasks. Discipline is exercised through other rhetorical tactics that are regularly drawn on by the manager in a range of situations (as we have seen). It is through both these that the care worker and contact person can be normalized. Insofar as the workers are categorized as a population, individuals may then be afforded category entitlement, and the disciplining practices of language interactions position workers to engage in particular kinds of internalized activity. The individual constructed is disciplined through the requirement for discussion at staff meetings and elsewhere and afforded entitlement and responsibility to speak knowledgeably in particular ways that constitute the hierarchical relationships that we have seen. This process culminates in the constitution of the subject within a generalized population through which it may then be regulated.

## A Regime of Practice of Care and the Activation of Workers

An analysis of a regime of practice in terms of governmentality analysis includes several aspects. Here, rather than focusing on the historical emergence of a regime or the elements that constitute the regime or processes by which these are brought together, we have focussed on identifying some specific knowledge made possible through this regime in one site and on specific techniques through which the regime operates and reaches its goals in this time and location (cf. Dean 1999). From this perspective, it has been possible to consider rhetorical tactics mobilized in the

shaping of subjects and the knowledge produced through and, to a lesser extent deployed, in such work in this location.

We have illustrated how the manager at this elderly care home mobilizes what we have called a technique of invitation and the appropriate rhetorical tactics to invite employees to activate themselves and be responsible. These we suggest as micro-tactics within a wider regime of care aimed at the activation of workers. Rhetorical tactics are, we have demonstrated, amenable to analysis in that it may be relatively stable within language and available for description (Potter, in Nicoll 2008). They show how language acts specifically in these interactions, as part of practices of governing, to make the constitution of active subjects more possible or even likely.

The rhetorical tactics and technique of invitation that operate to activate workers in the site studied here connect up strategically with elements within a wider regime of care. This regime of practice cannot be reduced to a set of specific relations or problems, as it is multiform, consisting of multiple and heterogeneous elements with different historical trajectories. At this time, however, it is clear that national and international policies for the activation of workers are key in contemporary attempts for reform through the mobilization of workers. The problem identified in European and national policies on employment and education is that of the activation of workers. Such activation is represented as vital in creating a workforce which can contribute to the economic growth of a region or country (European Commission 2001; Ministry of Social Affairs 2007). In-service training and workplace education are positioned as essential in this. These wider policies connect up with those concerned with elderly care in Sweden. They are shaped through discourses of new public management (NPM). They link up strategically as elements within a wider regime of care for the activation of workers. This regime is polymorphous in its relations as it bears upon a range of differing problems, for example, the challenge to meet the demands of care in the future with an ageing population, the challenge to take care of people with disabilities, care of traumatized children, care of inmates in prison, etc.

The regime of care as it emerges as a particular ensemble in Sweden is a specific example. Policies for elderly care are aimed at the activation of workers and link up with a discourse of new public management (NPM). NPM is a model drawn on in business theory which has been taken up and extended into the public service. Its aims are fiscal constraint, goal-oriented governance and making people responsible (cf. Dahl 2009). This model can be seen as guiding changes taking place within elderly care work in Sweden during the last decade in connection to downsizing and reorganization (Johansson 2008). Inspired by NPM, a purchaser-provider model was introduced in the 1990s, and the delivery of care in Sweden became privatized. Public providers now compete with private providers for contracts. Connected to this, a new managerialism has emerged. Where care administration was previously integrated with the task of caring, today, it is separate (Andersson 2008). The focus has shifted towards meeting budget targets and fiscal constraint. At the same time, there has been a shift in policies towards the training of employees in elderly care. But since the changes in the 1990s, there has been no or little investment in in-service training. The underlying assumption has appeared to be that learning is to be carried out by individual health care workers in their daily work (Fejes 2012).

In Sweden today, policies have shifted. According to policy texts, Sweden is facing a future where there is a projected shortfall of 200,000 health care workers in elderly care by 2015. Measures have been taken by the Swedish government to make elderly care work more attractive and raise the level of competencies among those already employed (Ministry of Social Affairs 2007). These measures include programmes for recognition of prior learning (RPL), in-service training and the introduction of new working methods for enhancing elderly care practice (cf. Fejes and Andersson 2009; Sandberg 2011). One method taken up, for example, has been that of 'learning conversations', where the idea is for workers to discuss and reflect on work activities with a supervisor (Fejes 2011).

In Sweden, NPM has increased the focus on in-service training and the competence development of elderly care workers within a new discourse of managerialism. Policies for the activation of workers work together to support and constitute a regime of practice of care coordinated in part through elderly care homes in Sweden. Within such a regime, and based on the above-mentioned 'problematization' (Dean 1999), political reason is understood to be problem oriented. The creation of an active worker is constructed within policies as essential to meet the challenges of the future. This construction of 'the active worker' operates through the practices of work and might even be taken up by the workers themselves as desirable. Some authors, with whom we agree, have argued that similar kinds of changes as described above contribute to the shaping of entrepreneurial subjectivities (cf. Rose 1999; du Gay 1996) who are asked to become active and responsible in relation to their work tasks. It is a shift from a 'culture of dependency' to 'self-reliance' (Peters 2001). Detailed analysis is needed to gain understanding of how these elements are interconnected, to consider what forms of subject are supported as their effect in differing sites and locations and how such constitutive work is attempted. This kind of analysis has been our ambition in this chapter.

## Discussion

A regime of practice can be identified when there is a relatively stable correlation between characteristic and taken-for-granted forms of seeing, mentalities, technologies, techniques and agencies, focused in relation to a particular problematization (Dean 1999). In Sweden, we might therefore feel the urge to argue such a correlation in relation to the perceived problem of care and the activation of care workers. In relation to care, we could argue a correlation between discourses of NPM, a new managerialism, a strategy of activation, a technique of invitation and various micro-tactics of rhetoric in language, which, in their focus on care and the shaping of active care workers, have become relatively correlated and taken for granted. However, this is not our specific argument as the regime has a wider dispersion. It is connected to other kinds of practices and a wider problematization of care that is not limited to elderly care work. Rather, the regime of care operates within a wider range of institutions, including the prison and schools, but worksites more generally,

where techniques of activation are mobilized in differing forms. In prison, this might be done through, for example, dialogue techniques where inmates are confronted by their victims (Petersson 2003). In schools, dialogue techniques for the activation of pupils are used in the relation between the educational counsellor and pupil (Fejes 2008b), and activation is the aim in cognitive behavioural programmes deployed in schools (Dahlstedt et al. 2011).

At work sites, in-service training programmes are variously mobilized with arguments of benefit for the individual employee and workplace (cf. Fejes 2010). Employees are increasingly positioned as responsible for their own work development (Townley 1994), and this is done through different techniques, for example, through the use of performance appraisal (Townley 1993) or the use of teamwork (Sewell 2005; Knights and McCabe 2003). Prospective employees may learn how to perform themselves as active subjects in writing a CV (Metcalfe 1992). Employees may be required to position themselves as not only active but as 'loving' their organization (Andersen and Born 2008). These differing techniques are aimed at activation, but at the same time, they are mobilized as techniques of care. By becoming active, workers are construed as being cared for at the same time as they care for themselves and their organization. This is a powerful relation as activation is positioned as good for all and desirable. Activity draws on the capacities and the freedom of the worker in that it is invited rather than coerced or forced on the worker.

We can now see how a regime, although pointing to relatively stable and routine ways of doing things, is not identical to the practices of any institution. Neither is there just one problematization. A regime of care makes different problematizations possible in relation to elderly care, workplaces more widely, and in relation to prisons and schooling. This dispersion of practices and problematizations is one of the characteristics that makes a regime effective in the shaping and moulding of subjects for the governing of active conduct.

The kind of rhetorical practices that we have identified here quite possibly suffuse the regime, but we have no empirical evidence for this here. Through alternative analysis, this invitational work might well have been categorized as a kind of 'informal teaching', inviting 'informal learning' as workplace practice. In the elderly care home that has been studied here, it is through the rhetorical work of language that workers are afforded category entitlement to particular roles and responsibilities, invited to develop their knowledge of and responsibility for the identification of problems and solutions and work on themselves as a specific form of active entrepreneurial worker. This activity affords at the same time a category entitlement to those cared for and inscribes a hierarchy of care between categories of carers as it inscribes particular relations between them. These rhetorical resources are thus significant in their construction of practices.

In asking how these practices of activation and regime of care come into being and operate through institutions, we can turn again to Dean (1999). He argues that, in contemporary times, practices, structures and values of the market are 'folded back' into areas of provision that were previously public so as to reconfigure them as quasi-markets. The elderly care homes in Sweden are perhaps currently undergoing

this kind of reconfiguration at the intersection between discourses of NPM and a new managerialism, where workers are shaped as entrepreneurial and active subjects. This is seen not only as a measure aimed at efficiency but a mechanism for the reformulation of conduct towards that of enterprise and the consumer. Structures and values of the market become drawn on in previously public services, and a regime of practice governing private sector institutions is extended out into the public sphere. Neo-liberalism no longer conceives of the government of society, as it no longer makes a division between the state and society. And it is through such extension, and the reconfiguration of particular forms of practices, including those that support the activation of particular forms of worker that governing at a distance is achieved. In this chapter, we have seen that particular forms of rhetorical practice are implied in support of such activation. Here, any further transformation for Dean (1999) would require the invention of new forms of advanced liberal government and government of the social. For us, local transformations might involve a questioning at the micro-level of any stabilization of rhetorical practices and technique of invitation at particular sites.

To have focused in this chapter on effects through the work of language has been worthwhile. For in understanding the means by which the regularities of language work to discipline the worker and at the same time construct a population available for the exercise of biopower, we begin to reveal specific practices through which individuals are made active in particular ways that can then be subjected to scrutiny. There is then a circularity of effect in the regularities of the rhetorical practices used by the manager in her communication with workers in this work site. Workers are disciplined as active entrepreneurial workers and at the same time made subject to a description of their work through which they become available as a population for further individualization, supervision and administration. This is a regime of care within which people are caught up in the exercise of disciplinary and biopower in part through particular rhetorical practices.

Identifying rhetorical tactics as amendable for analysis in the way that we have here requires reflexivity on behalf of the authors. Writing a text, such as this one, does something, both in producing the 'thing' of which it speaks and as it draws on tactics of rhetoric through which it aims to convince the reader. Our analysis is critical insofar as it has aimed to reveal something of the 'how', the means by which practices of government as micro-tactics of language support specific effects. In doing so, our intention has been to provide a narrative that is quite different from ones we perhaps take for granted in our everyday life of work or through other forms of research so as to create a potential to do things differently. This does not, however, mean that we argue that the practices of the manager in this instance are good or bad. Instead, we argue that power is channelled through specific regularities of rhetorical tactic used in language interactions, which attempt specific effects in language and in shaping subjectivity. So, even as we attempt a critical reading, we are at the same time reifying 'activation' and 'rhetoric' as things that do some kind of productive work, even though this has not been our intention. We mobilize our own regularities of rhetoric, focussed on convincing the reader that our text speaks of the real and is persuasive.

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# Chapter 12
# Learning Professional Practice Through Education

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## Introduction

In this chapter, we discuss a case of professional learning in higher education with a particular focus on health care. We focus in particular on what aspects of professional education become visible if we shift our viewpoint from a cognitive learning perspective on professional education, which has been the dominant conceptual framework for problem-based learning, to a practice theory perspective, viewing this case of professional education as a practice, or a set of practices, in itself.

We have chosen the field of health care as the context of our attention because it is rapidly changing. Communication and collaboration with both the patient and with other health-care professionals have become even more important capabilities than before, not least when it comes to providing safe, high quality care. There are increasing demands on health professionals' abilities to participate knowledgeably in these changes, as well as in the development of their professions and professional education (Frenk et al. 2010).

Introducing a practice theory perspective on pedagogy on professional health-care education might allow a new gaze on a field that for a long time has been

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dominated by cognitive discourses about how to improve students' learning in higher education, where many attempts are made to reorganise and rethink educational design in order to prepare students better for professional health-care practice and to reduce the 'theory-practice gap'. Research on learning in higher education, which has often been used to argue for such reform initiatives, has to a large extent emphasised learning from a cognitive perspective, focusing on students' understanding of central concepts within their field of study. A tentative conclusion to be drawn from this research is that universities have not been overly successful with regard to the impact on students' learning. Several studies have shown students' understandings of central concepts in their disciplines to be weak (Marton et al. 1984), and the transition to work life has many times been described as a 'practice shock' (Stokking et al. 2003). Fenwick argues that traditional approaches for most current pre-service education and training do not take into account recent practice-based understandings that recognise that knowing emerges in action with settings, people, activities and objects (Fenwick 2009, 2010).

Against this backdrop, our starting point is the need for professional educators to understand how, and if, professional education in higher education can be arranged to support the development of learning outcomes that reside in the realm of practice. A possible way of achieving this could be to alter the lens through which we view professional education. Instead of seeing professional education as *preparing* for practice, a perspective on professional education *as* a practice, or a set of practices, can possibly enable us to make visible dimensions that may be of importance for the arrangement of professional learning within the frames of higher education and to deconstruct the idea of a 'theory-practice gap'.

In this chapter, we seek to accomplish such a shift of lenses through the analysis of a case of professional health-care education from a practice-theory perspective. We will use Kemmis' (2009) synoptic framework for understanding and researching professional practice and also Schatzki's (2001, 2002) theorisations of practice to make visible the connections between the set-up of organisational, productive and communicative relationships embedded in the curriculum and health-care practice. We show how the curriculum connects to health-care practice and hangs together *discursively* by (a) using representations of practice as the very starting point for learning rather than beginning by teaching disciplinary concepts and (b) modelling the structure of the curriculum thematically rather than on a disciplinary basis and (c) enacting a common model of learning activities based on interaction and collaboration.

Further, we will discuss how the *socio-material arrangements* of the educational activities prefigure a practice of interprofessional collaboration between professional health-care workers-to-be. The authors have been participating in the development of the educational approach and in undergraduate teaching in the professional programmes, which in one sense enables an insiders' view on the educational arrangements. We also step back from the immediate context of health professional education to relate these insights to our experiences of research on student learning and the relationship between higher education and work life more generally (Abrandt Dahlgren 2010; Reid et al. 2011).

### *Setting the Scene: The Linköping Model of Professional Health-Care Education*

The context of our case is the Faculty of Health Sciences at Linköping University, Sweden. The reasons for choosing this case are that, since 1986, a common pedagogical approach has been used for all study programmes, including physiotherapy, occupational therapy, social care management, speech and language therapy, medical bioscience, biomedical laboratory science, nursing and medicine (Kjellgren et al. 1993). The case thus draws on a 25-year history of documented organisational and curriculum reform within one pedagogical framework: problem-based learning (PBL).

This pedagogical approach has been based on an integration of biomedical disciplines and clinical specialities and collaboration between students from different programmes in interprofessional tutorial groups. The interprofessional learning (IPL) activities are carefully staged and reoccur throughout and across the different professional programmes. Over the years, evaluations in national and international reviews of the programmes, for example, the medical and nursing programmes, have demonstrated favourable results (Swedish National Agency for Higher Education 2007; Antepohl et al. 2003; Faresjö et al. 2007).

The underlying conceptual structure of PBL as a pedagogical approach can be described as moments of understanding over time of how to improve student learning, with the pragmatic intention of moving the context of learning closer to the context of application of knowledge (Barrows 1985), drawing on cognitive theories of the function of human memory and its implications for learning (Norman and Schmidt 1992) and phenomenographic research on learning in higher education (Marton and Booth 1997). More recently, these perspectives have been supplemented with a social constructivist emphasis on the social dimension of learning, where meaning is constructed in interaction with others (Savery and Duffy 1995). Summarising these previous understandings of the rationale for the applied pedagogical approach, the dominant focus has been on the student, the thinking and learning processes and what can be done in terms of pedagogical arrangements in order to support learning.

## A Practice Theory Perspective on Professional Education

What then can a practice theory perspective on an educational approach contribute? If we recognise the materiality and local nature of knowledge production and knowledge relations in enacted professional activities, where professional learning is understood as a matter of negotiating different knowledge resources in the moment of activities, what consequences does this bring for professional education? What are the connections to health-care practice? How can enactment of professional activities contribute to the critical study of curriculum and to the conceptualisation of professional learning?

Kemmis (2009) suggests that the study of practice should think 'relationally on how the individual is made by the social and how the social is made by individuals, and how things seen from the inside appear from the outside and *vice versa*' (p. 21). Applying such a perspective means dissolving the dichotomies between the subjective–objective and making visible the connections that cut across these dimensions. Actions and interactions that make up a practice are always shaped by mediating preconditions that structure how the practice is realised in material arrangements (set-ups), words and discourse (sayings) and in how people act and interact in physical and material space-time (doings). The preconditions also mediate the networks of relationships between the people it includes and excludes (relatings). Our intentions here are to showcase some of the arrangements that have been developed and how the sayings, doings and relatings are connected in the practice of student learning within the context of PBL-based pedagogies. Of course, our viewpoint here can only be an outside observation of how the connections between sayings, doings and relatings are constituted by students – indeed, the lived experience of participation in this particular learning practice would tell a different story.

Historically, the rationale for PBL pedagogy has developed and changed meanings and theoretical frameworks over time, as we mentioned above. This development can be viewed as an example of how practice is always transformative (Kemmis 2009) and changes existing states of affairs in the dimensions of semantic space, (sayings), physical and material space and circumstances (set-ups and doings) and social space (relatings). Kemmis argues that practice is reflexive and develops and transforms in the light of critical reflection on those features in relation to a particular situation, particular participants and a particular moment in history.

If we look at PBL as a practice today, we can note that the emphasis on arrangements for collaboration, communication and quality improvement can be linked to a broader debate in health care that has greatly emphasised cooperation for quality of care and for patient safety. WHO has been an important actor in emphasising interprofessional education in 'Learning Together To Work Together For Better Health' already in 1988 (WHO 1988) and most recently (2010) in the report 'Framework for Action on Interprofessional Education and Collaborative Practice'. Quality in health care is ultimately about the patients' health and life and, it is argued, is dependent on collaboration between different actors in the health-care system, professionals, future professionals, patients and families. In the discussions about safety in health care, it has also been emphasised that the ever-increasing complexity and sophistication of the technical equipment used in health care has called for a corresponding specialisation among professionals. This is a development that calls for effective and safe interprofessional communication. Conditions relating to cooperation, learning and communication between different groups of professionals in health care have been cited as significant (Wallin and Thor 2008; Higgs et al. 2004). Interprofessional collaboration has also been emphasised as important in the ongoing debate about the everyday, practical quality work of health-care professionals that is usually described as 'improvement knowledge' (the ability to continually reflect upon and, if necessary, change the daily work routines and structures) (Batalden and Davidoff 2007; Hofseth Almås 2007). The international attention to interprofessional cooperation is currently

extremely high (Barr 1998, 2002; WHO 2010), not least in the context of patient safety issues linked to poor communication between professional groups (Wallin and Thor 2008; Bleakley et al. 2006).

In the following section, we will take a closer look at the 'set-ups' and 'doings' of the professional education practice of our case and discuss how the practice of health care is represented and enacted.

## *Using Representations of Health-Care Practice as the Starting Point for Learning*

One of the most typical 'doings' is that all study programmes use problem-based learning from day 1, working with health-care scenarios in small tutorial groups as their basic working form. The material arrangements that position students face-to-face around a table prefigure a practice where not only the content of learning but the practice of learning to work together are emphasised. Working with scenarios means that students work with various representations of professional practice, functioning as tools for their inquiry to formulate common and individual goals for learning. Green (2009) analyses and discusses the problem of representation of practice as a mentalistic and cognitive phenomenon, which presupposes an objectivist theory of knowledge, not embedded in practice. Green suggests there is a need of reformulating representation 'within, and as part for an adequate theory of practice'. If we bring this reasoning to the problem-based learning tutorial, the group of students discuss together what their understanding of the scenario is and proceed by problematising the case in relation to their present and common ability of making sense of the situation presented. The scenario contains no information or directives of what actions to be taken; the group needs to negotiate that among themselves.

These immediate 'doings' are clearly connected to the discursive dimension of the practice. There is a suggested model available of how to proceed stepwise to use each others' capacities in order to arrive at a more informed understanding of the case. They continue by formulating questions, in which they aim at self-directed inquiry into the basic medical disciplines as well as into the social and psychological issues necessary to understand the outlined scenario. The scenarios materialise as written short descriptions of a patient case, a video clip or a picture, interactive computer-based patient records, etc., all demonstrating practice-based, everyday scenarios and events that students are likely to encounter in their work as health professionals.

The connection between the 'doings' and the 'sayings' here can be described as a deliberate attempt at giving primacy to practice. Beginning the learning process in this way means that theoretical concepts are never presented up front, but instead discerned from their most common practice contexts, and also analysed and understood within the same practice. This is a pedagogical strategy aiming at deconstructing the gap between theory and practice that often gets prefigured through the idea of education, when theoretical concepts are presented in a decontextualised,

disciplinary structure, with the presupposition of later to be applied in practice. The use of scenarios, where patients/clients' stories are told, can also be seen as a way of introducing 'the voice of the life-world' as the starting point for learning into the realm of health-care education, where the 'voice of medicine' usually is the most dominating discourse. These two concepts were introduced by Mishler (1984), in his studies of patient-physician encounters in health care, where he noticed that the patients' lived experience of their diseases quickly became silenced and were instead translated into medical vocabulary.

There is, however, a risk that the idea of representing practice through scenarios might not work as the intended open-ended tool for understanding, if the connections between 'sayings' and 'doings' do not allow for the learners to explore and ask the questions they need in order to understand. Margetson (1998) has pointed to the fact that there is a variety in what role the problem/scenario plays in problem-based curricula. The problem might just be a 'convenient peg' on which students can hang their predetermined factual knowledge needed to pass the examinations. In such cases, there is actually no change in comparison with educational approaches that determine from the outset what theoretical concepts students should learn and later, supposedly, apply to practice. If the intention is to really give primacy to practice, scenarios need to be viewed as a 'growing web' of understanding, in which there is no predetermined right or wrong answer and which can change depending on what questions are asked and actions taken, just as in health-care practice itself.

## *Prefiguring a Practice of Collaboration*

In the process of discussing the scenarios, the students work from either a particular professional health-care perspective, or they work together in interprofessional groups to discern how the respective professional perspectives contribute to the understanding of the problem at stake. Lectures, resource events and different kinds of skills training sessions and laboratory work are also included in all programmes, but they are seen as activities to support the students' work to problematise and understand the scenarios, rather than as a curriculum that is taught up front. Analysing the pedagogy as a practice, we may argue two things: first, that the mode of working causes professional attributes such as communication skills and abilities to negotiate and handle conflicts to surface. These are to be seen as dimensions of health-care practice that cut across and can be enacted within the practice of health professional education. Second, representations of practice are used within the educational setting with the deliberate intention to prefigure and shape practices in health care, already from the outset of study programmes. In doing this, the pedagogy prefigures a health-care practice of collaboration and interaction, where different professional perspectives as well as the clients' perspectives are needed to accomplish safe health care with high quality. More research is needed to show how the students configure and enact the prefigured practice, as well as how the practice is reconfigured and transformed through their reflection on practice.

In this section, we began our analysis of how the 'doings' of our case of health-care education practice connect to the 'sayings' of the same practice. In the next section, we will inquire more deeply into the 'sayings' by examining how the preconditions structure and mediate the way the practice is constituted discursively.

## *Modelling the Curriculum on a Thematic Rather Than a Disciplinary Basis*

The professional curricula of our case have different foci, but share a common precondition, in that they have a thematic and spiral design, mediating learning from complex scenarios. The thematic structure of the curriculum means that complex body functions such as, for example, 'breathing', are studied through the integration of basic disciplines such as anatomy, physiology, biology, etc., instead of through sequencing and separation of the basic disciplines. The thematic structure could be viewed as a constructive alignment (Biggs 1999) with and connected to the use of scenarios as the starting point for learning. The spiral structure means that the themes recur over the course of time, but employ different perspectives. The themes are also closely related to health-care practice in different practice contexts, for example, the normal functioning of the human being, the disturbed functioning and the clinical manifestations. The different perspectives on the recurring themes throughout the curriculum aim at supporting students learning, through a process of iteration rather than simple repetition.

The rationale for what content is to be included in the curriculum is based on the idea of vertical exemplarity, rather than on horizontal representation (Dahlgren 1993). Vertical exemplarity means that the themes are dealing with problems that are the 'eternal problems' most commonly encountered in practice in order to make it possible for students to explore and enquire. Horizontal representation means that the curriculum is based on the idea that 'everything' should be represented, which by necessity will lead to a too crammed schedule, leaving very little room for students to problematise or explore.

The preconditions mediating 'relatings', that is, the people the practice includes, that are unique for our case, are the set-ups of the interprofessional learning events. These set-ups are part of the dynamic interplay between the policy level, the organisational level, the curriculum level and the activity level. The interprofessional learning events at the curriculum level follow a similar spiral structure as described above, in the iteration between different perspectives. In the early phase of the curriculum, the perspective of a common foundation for health-care work across professions is emphasised. In the middle phase of curriculum, the scope is the discernment of professional perspectives. The third cycle of interprofessional activities at the end of the curriculum emphasises the perspective of clinical collaboration. In all three cycles, understanding of the patient scenario presupposes relatings between different professional perspectives and includes the students, the clinical supervisors and the patients.

It is important, however, to understand another set of 'relatings', mediating and enabling these 'sayings' and 'doings' of the curriculum, and that includes other actors. These are the organisational structures and dynamics of the faculty, where a Board of Integration is a powerful actor given the responsibility and mandate for the planning and arrangement of the educational activities with interprofessional learning in focus across the faculty. The Director of Studies for the interprofessional curricula is also represented on the Board of Undergraduate Education, together with the directors of the different programmes. All decisions about interprofessional educational activities apply to all programmes, with the same learning goals, etc., meaning that connections across the different professional programmes are reinforced and thereby made sustainable.

At the policy level, an important mediating condition for the development and realisation of these pedagogical arrangements is the close collaboration with the County Council of Östergötland. County Councils in Sweden are the regional bodies which govern health-care practice. The Faculty of Health Sciences and the County Council of Östergötland have agreed on a common strategy with the aim at supporting excellence in health care, health-care education and research and collaborate in a number of groupings to accomplish this.

In the following sections, we will give some empirical examples of how the arrangements for interprofessional learning are embedded in the professional curricula and demonstrate how 'sayings', 'doings' and 'relatings' hang together in this practice. The three cycles of interprofessional activities comprise the course Health, Ethics and Learning, parts 1 and 2, and the final cycle comprises the Student Training Ward. We focus on how the socio-materiality of professional practice is realised within the curriculum of the professional programmes.

## A Socio-Material Framework for Curriculum Development

### *First Cycle: Health, Ethics and Learning, Part 1*

The first cycle, Health, Ethics and Learning, part 1 (HEL1), has been effective since the beginning of the Faculty of Health Sciences in 1986. It is a 7-week course that constitutes the very first learning experience for all undergraduate students when they arrive to the University. This means that the first experience of professional learning is actually an interprofessional one, a set of arrangements and doings, attempting at recognising that knowing emerges in action with settings, people, activities and objects. The rationale is 'learning together to enable working together'. The students come together in interprofessional study groups, and at this early stage, the professional identification is primarily built on expectations, rather than experiences of a professional perspective.

The aim of this first interprofessional event is therefore not to discern differences between professional perspectives, but to learn the common and fundamental concepts in health and disease, how to work to promote health and not least create a common ground of values by becoming aware of ethical dilemmas in health care.

Following the idea that a common set of values may also be claimed as essential interprofessional competencies, Wilhelmsson (2011) describes five domains of meta-knowledge that are addressed at this early stage of interprofessional collaboration. These are (1) team work and group processes, (2) reflection and documentation, (3) communication, (4) a general common knowledge base and (5) ethics, all of which are central to collaboration in health care. Adopting a practice theory perspective, these domains actually constitute and realise the socio-materiality of health-care practice within the professional curriculum in a tangible way. The domains mentioned above cut across the practices of education and learning and are here enacted in curriculum practice. For all of these, particular learning activities are arranged. To give one example from the domain of communication, learning activities can comprise of video-recording the enacted interaction in the tutorial group. The expected learning outcome of that activity is to learn about one's own roles and functioning in groups.

Another example is the verbalisation and discussion of differences in professional cultures, languages and actions in the group. The expected learning outcome of this activity would be to create an awareness of the need of a common language between professionals (Wilhelmsson 2011). In 2008, and as a response to the broader discourse about health care, safety and quality, quality improvement was introduced as a new domain of meta-knowledge. This new domain was introduced as a new set of 'doings'. The students undertake a personal improvement project where they make use of basic tools for quality improvement of an aspect of their everyday life. The projects are presented and evaluated at the end of the course and make up an important foundation for the coming interprofessional quality improvement projects later in the programme. The first experiences of interprofessional collaboration end after 7 weeks of the undergraduate programmes, as the students start their profession-specific studies.

In the next section, we will focus on the second cycle of interprofessional 'doings' in the curriculum, connected to the 'sayings' about discernment of different professional perspectives as the expected core learning outcome.

## *Second Cycle: Health, Ethics and Learning, Part 2*

The second module of the interprofessional curriculum is the course Health, Ethics and Learning, part 2 (HEL 2), which runs over a total of 3 weeks towards the end of the undergraduate programmes. At the time of HEL 2, students have to some extent developed a professional identity through their specific programmes, and the idea of the second cycle is to make visible and support their professional development by emphasising the significance of interprofessional skills. Learning about, from and together with other professions, as defined by Centre for Advancement of Interprofessional Education (CAIPE 1997) in the health-care team, is viewed as crucial in the formation of a professional identity (Barr 1998, 2002). Dahlgren (2009) has suggested that learning about others can be seen as a way of decentering from one's own perspective and better knowing those of others. Learning from others, Dahlgren suggests, is a way of expanding the professional competence both laterally, by

becoming acquainted with and appropriating the perspective of others, and vertically, through deepening your own professional competence in relation to this. The third aspect of interprofessional learning – learning together with others – Dahlgren sees as important for establishing a common base for joint action (Dahlgren 2009).

Adopting a practice theory perspective on the idea of learning about, from, and together with other professions, changes our focus to, in Schatzki's words (2002), how the nexus of actions hang together and are integrated in practice. Encountering other professionals in the common enterprise that is constituted by health care makes visible how the doings and sayings composing this practice are linked through (1) practical understandings, (2) rules, (3) a teleoaffective structure and (4) general understandings.

The discursive arrangements for HEL 2 are teamwork and quality improvement work, enacted in clinical practice. Through the shared general understandings of the need of quality improvement in health care between the County Council and the Faculty of Health Sciences, a practical understanding emerges of what kind of projects/problems in need of quality improvement can be suggested by staff in the clinical practice settings and made available to the students to work with. During the work, problems in quality improvement are approached from different professional perspectives among the participating students. In this process, new practical understandings of the problem emerge, and the students encounter differences in the rules that direct the respective professional perspective. The chosen courses of action reflect the teleoaffective structures in use, what actions are purposive and make sense to take.

The material arrangements for working are the conditions of health-care practice itself. The students make site visits to work with the 'problem', using tools for quality improvement work, such as the PDSA-cycle (Cleghorn 1996). Cleghorn suggests that the Plan-Do-Study-Act (PDSA) cycle lies at the heart of continuous improvement and is a redefinition of the scientific method for application to the world of work. The students in Linköping use the PDSA cycle to define areas to investigate and finally suggest intervention/s based on evidence from the literature.

Examples of quality improvement projects that the student teams have been working on are (a) multi-seekers in primary health care, (b) accessibility for COPD (chronic obstructive pulmonary disease)/asthma patient to PHC (primary health care) and (c) the use of proper search terms in electronic medical records. The result of the students is applied in the clinic and evaluated, both from a health-care perspective but also as a learning experience for the employees. Staff and students create a learning practice with novices and experts, junior and senior professionals and teamwork between the professions.

Our experience is that, during HEL 2, students are able to take on interprofessional perspectives on health-care issues and to contribute to formulating and solving problems with contributions from their own professional groups. The introduction of techniques for quality improvement into the interprofessional curriculum rests on the assumption that students need to realise that professional practices are not stable, but changing, and that they need to be able to induce change in their professional work as part of their professional responsibility. This assumption brings with it the requirement

for students to be trained to observe the need for change in practice and to be able to stage and carry out processes of change, which is important, not the least from the perspective of enhancing patient safety. There is still a lack of systematic knowledge about what long-term consequences these techniques might bring to professional practice in health care, bearing in mind that quality improvement techniques are a way of thinking that originates in ideas of industrial management, rather than health care.

HEL 2 also introduces a new way of viewing students as change agents in clinical practice while learning about the systems, processes and ways of improving safety and value for the patients. This is a reorientation of the practice of health-care education that challenges previous practices where the general understandings of education assume it to be a tool for socialising students into practice. The alternative idea of students being immersed in practice during their training, working with change, together with their peers and with older generations of health-care professionals, might have the potential to shape a new idea of professional learning within the frames of higher education.

## *Third Cycle: The Training Ward*

The third cycle of the interprofessional curriculum comprises 2 weeks of clinical experience at a students' training ward, towards the end of their studies. The training ward is part of an orthopaedic or geriatric clinic and comprises eight beds. One resident medical practitioner and one nurse make up the ordinary staff during daytime. Students from the programmes in medicine, nursing, biomedical analysis, physiotherapy and occupational therapy come together to work as health professionals in the training ward. Typical teams comprise one medical student, two nursing students and one student from the biomedical, occupational therapy and/or physiotherapy programmes, respectively. Student teams work in shifts that overlap to permit reporting between shifts.

The students' tasks comprise all the care for the patients, including medical care, nursing, administration, medication, planning, training and rehabilitation. The students are responsible for general as well as profession-specific tasks. The former comprise, for example, meals, bed making and hygiene. This means that the students have to work together as a team to take care of all aspects of care. Here, the 'doings' of the third cycle of the interprofessional curriculum are clearly connected to the 'sayings' of the first cycle, where the aim was, among other things, to establish a common set of values for professional health-care work among the health workers-to-be. In the common work together with the patient, these values are enacted.

The aim is to acquire and practice collaborative and interprofessional skills in doing health-care practice. The students manage the whole process around the patient and are supervised by specially trained staff. The material arrangements of the ward include a special room, designated for the activity of analysis and reflection on the day's work, in the team together with the supervisor and equipped with a round table and chairs for discussion, plus a white board for making notes. The

students work with the task of clarifying how their respective professional role and practical understanding of the caring situation will contribute to the team and ultimately to general understanding of the welfare of the patient. From students' evaluations of the third cycle of the interprofessional curriculum, it seems that there they have difficulty in linking the practical understanding of caring for the patients' basic needs to the general understandings of the welfare of the patient. The expected learning outcomes of the training ward are that the students should develop their capacities to collaborate effectively. The collaboration should take into account the patients' needs of care and rehabilitation. Finally, the students should be able to reflect on and identify their own professional role and to adjust their own courses of action to the common health-care teamwork. When caring for basic needs is not identified as part of the responsibility of a specific professional perspective, the practical understanding that the socio-material arrangements produce seems to conflict with the students' general understanding of health care.

Discerning the contributions of one's own and other health professionals' knowledge to manage a particular patient scenario can be necessary to achieve and improve quality and safety in health care. Knowing what other professions can contribute to help becomes as important as knowing the repertoire of a particular health profession.

Edwards, Daniels, Gallagher, Leadbetter and Warmington (2009) describe this particular feature of interprofessional learning in their study of improving interprofessional collaborations in social work as the development of a 'relational agency' (p. 41), meaning the competence to work flexibly and responsibly, utilising the distributed expertise that the participants bring to the group. In learning this competence, Edwards et al. (2009) suggest that the use of *boundary zones,* where the collaborating professionals together can reflect on the work with particular cases, is helpful to articulate the contributions from different professional perspectives and to learn about others. The arrangement of providing a particular room in the ward, where the group of students share their experiences from being immersed in practice under guidance of a supervisor, interprofessional student groups as in our case, could be viewed as the materialisation of such boundary zones, where the relationship between the professional and interprofessional competences can be understood.

## Concluding Reflections

This chapter has argued that there is a need for rethinking educational arrangements for professional learning in higher education. The underlying problem for professional educators is to understand how, and if, professional education in higher education can be arranged to support the development of professional and interprofessional skills. We have suggested that a possible way of achieving this understanding could be to alter the lens we are viewing professional education through, from a cognitive one to a practice theory one.

In our previous research, we have identified a number of dimensions critical for identification with professional cultures from the students' and the professional

educational perspectives (Abrandt Dahlgren et al. 2006; Axelsson et al. 2010; Reid et al. 2008; Nyström 2009; Abrandt Dahlgren and Hammar Chiriac 2009). The conclusions draw on empirical findings from three different longitudinal research projects, building on interviews with students in a variety of professional programmes. Our results show that the perspectives of knowledge and learning embedded in the educational professional programme will have an impact on how the educational approach is apprehended and enacted by the students (Abrandt Dahlgren 2010). In a meta-analysis of two international research projects focusing on learning for the professions, we show students holding what we term either *rational* or *ritual* relationships to learning and knowledge for the professions. A rational relationship means that the content of learning is understood to be meaningful and relevant to the coming profession. A ritual view means that the content of learning is seen unconnected to future work, but necessary to graduate. We have argued that these different relationships to learning and knowing are of importance for their professional identity formation through and engagement in their educational programme (Reid et al. 2011). One interpretation of the example of the conflicting understandings of caring for the patients' basic needs, as in the training ward, that this previous research can give is that students conceive of this educational content as ritual and not rational to their coming profession. Shifting the lens to a practice theory perspective on the same example allows us to see that the socio-material arrangements of the training ward produce a break-through in the linking between practical and general understandings of professional health-care practice.

Our practice theory perspective has also drawn attention to how the relations between different sets of actors are connected, both as important mediating conditions through broader societal discourses, national legislation, local institution and organisation, as well as in terms of how everyday educational practice is enacted. We can notice how sayings about the PBL approach have changed over time in response to different discourses and now seem in line with the global discourse of changing health care and the different kinds of practice that is needed. Our case demonstrates examples of how connections between 'set-ups', 'doings', 'sayings' and 'relations' are aligned in practice.

Taking an educator's perspective, a practice theory perspective highlights the importance of how material arrangements are set up in different ways to allow a collaborative practice to unfold. This highlights the need for serious consideration of how to use the material arrangements in the educational setting to enable articulation and understanding of how the practice hangs together in terms of practical understandings, rules, teleoaffective structures and general understandings.

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# Chapter 13
# Learning to Practise, Practising to Learn: Doctors' Transitions to New Levels of Responsibility

**Miriam Zukas and Sue Kilminster**

## Introduction

The challenge set by the editors of this book is to investigate the role and significance of learning in conceptualising practice. They ask us specifically how different theories of learning expand, or restrict, understandings of practice in the context of specific empirical and conceptual investigations. In order to address these questions, we draw on our research about doctors' learning in transitions to new levels of responsibility. We are interested in theorising doctors' learning in transition generally and their learning to make transitions specifically, not least because such transitions are more frequent and critical in medicine than in many other professions: they form an essential feature of doctors' careers. They are also of particular concern because, during the transition, we would expect, and indeed have found, that learning in authentic practice is in the foreground; doctors working on hospital wards are expected to care for patients from the moment they enter the transition.

Beginning with an explanation of the context for doctors' learning and an outline of the underlying assumptions about learning policy in this arena, this chapter will draw on a collective case study of doctors' learning in transition[1] to show that different ways of explaining learning in practice (e.g. situated learning and learning cultures) cannot fully account for what happens on the ward. Although Hodkinson et al.'s (2008) theories of learning cultures and cultural theories of learning were helpful in

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developing an alternative understanding of learning in transition, we have identified the need to develop further ideas to theorise practice. We suggest how this might be done in two ways. First, we will draw on Thévenot's (2001) notion of pragmatic regimes of practice to show how most approaches to doctors' learning focus on the public regimes of justification and regular action; transitions, however, always involve regimes of familiarity which are usually ignored. Second, we will introduce our notion of doctors' transitions as *critically intensive learning periods*, in order to explain particularly the interrelationships between learning, practice and regimes of familiarity.

In order to ground the discussion, three specific scenarios will be explored: clinical practice with people, with people and artefacts and with artefacts. These examples also serve to illustrate how practice involves animate and non-animate actors and how non-animate actors are not just background or contextual features but centrally implicated in practice. We will use our analysis and interpretation of these scenarios to examine the theoretical and practical implications, particularly in respect of learning local practices (regimes of familiarity). The case study will also make a contribution to our understanding of the role of learning culture in supporting the integration of practice as both service and learning.

## Understanding Doctors' Learning

### *Dominant Assumptions About Doctors' Learning*

Internationally, training for initial registration as a doctor is university based; doctors are then required to work, whilst undertaking further training, before they can be licensed to practice independently as a hospital consultant or general practice principal (family doctor). In the UK, newly registered doctors are enrolled in a 2-year foundation programme (designed to provide generalist training); subsequently, trainees enter specialty training for at least 3 years. Each stage of training has a structured programme with formalised requirements which include explicit expectations that trainees will have clinical training in a range of practices and procedures and regular, formal educational sessions. Trainees are required to have a designated educational supervisor, to sign a training/learning agreement at the start of each post and to maintain a logbook and/or a learning portfolio.

A number of implicit assumptions about learning emerge from this brief outline of the pedagogic support for doctors. First, learning tends to be understood mainly as a cognitive process (Sfard 1998; Saljö 2003; Mason 2007). For example, the notion of 'preparedness' for practice is prevalent throughout the medical education literature (Lempp et al. 2004, 2005; Illing et al. 2008; Nikendei et al. 2008; Matheson and Matheson 2009; Cave et al. 2009) in the formal training requirements, in employers' practices and amongst education providers. Whilst there is recognition that learning is facilitated by practice, the notion of preparedness separates learning from practice because it privileges learning as occurring before and outside practice.

Second, context is seen as separate from the learner with the learner enveloped by context (Edwards 2009). Issues of work organisation, power and wider social and institutional structures are generally excluded from consideration (e.g. Unwin et al. 2009). This critique may be taken one step further: because learning is seen as an individualistic, internal and mostly cognitive process, people and artefacts (the socio-material world) are also separated from the learner and learning/knowledge-making processes (Nespor 1994; Knorr Cetina 2001; Fenwick and Edwards 2010). This both ignores learning as an embodied process with practical, physical and emotional aspects as well as cognitive ones and fails to take into account the claim that learning in practice and elsewhere is relational. Consequently, the response to any problems with doctors' transitions almost always focuses on more and better 'preparedness' (located within the doctor) and rarely considers the material and social world of practice.

## *Situated Learning, Apprenticeship and Communities of Practice*

In contrast, socially derived understandings of learning within the work environment emphasise practice as the basis for learning. There are many versions of these understandings, but within medical education, Lave and Wenger's (1991) work on situated learning is most frequently cited (e.g. Bleakley 2005; Dornan et al. 2005). In this account, learning is viewed as engagement in legitimate peripheral practice under the guidance of experienced practitioners. Learning is understood as a form of 'becoming' in which knowledge, values and skills are not separate from practice. However, as we found in conceptualising our research, there are immediate problems when these ideas are used to explain doctors learning, particularly during transitions.

First, the transition itself is not an apprenticeship; there is frequently a disjunction between one level of responsibility and another; for example, overnight upon qualification, doctors acquire the responsibility to prescribe. Second, responsibility does not necessarily increase in a linear fashion through transitions and over time; levels of responsibility vary between settings and specialities, and a trainee may find they have less, rather than more, independence in some settings than others, despite being more experienced in terms of time served post qualification. Furthermore, legitimate responsibility may change significantly depending on other factors such as the time of day (night) and/or who else is present – if the most experienced practitioners are absent, trainee doctors are no longer peripheral participants but full members.

There are other aspects of practice which do not fit Lave and Wenger's notion of apprenticeship. Clinical teams (to which doctors belong) are not stable communities because the structure of much clinical practice involves shift working and other changing work patterns. Further, clinical workplaces are populated by intersecting – even competing – communities of professionals (doctors, nurses, pharmacists, other health-care workers). There may also be competing values and practices between old-timers and newcomers, as newcomers bring changing practices with them. Finally, practices themselves transform constantly, whether because of

changes in policy and regulation, technological transformation or responses to evidence; hence, the notion of an old-timer in relation to these new practices may be questionable. Thus, whilst it is clear that doctors' learning and practice in transition are inseparable, the understandings derived from the literature on communities of practice do not account for the particularities of clinical practice. This critique also has resonance for practice in other professions where service demands of newcomers require high levels of performance and responsibility.

## *Theories of Learning Cultures and Cultural Theory of Learning*

We initially turned to Hodkinson, Biesta and James' (2008) theory of learning cultures to formulate and interpret our research. They argue that most situated learning theorists focus on either a theory of learning cultures, or a cultural theory of learning. They also argue that we need both theories in order to circumvent some of the dualisms (e.g. mind/body and individual/social) which occur in the literature. This argument attracted us to their ideas.

Learning cultures are not equated with learning location but are understood as 'the social practice through which people learn' (Hodkinson et al. 2008:34). Such practices are constituted by the actions, dispositions and interpretations of participants in a reciprocal process in which 'Cultures are (re)produced by individuals just as much as individuals are (re)produced by cultures, although individuals are differently positioned with regard to shaping and changing a culture …' (p. 34). So, for example, different wards have very different 'feels' for new participants, constituted through the social practices on the wards; different participants 'fit' specific learning cultures to a greater or lesser extent.

Learning cultures are not ephemeral: they have histories and endurance through a range of phenomena. Hodkinson et al. suggest they function through the actions of individuals who themselves operate through 'systems of expectations' (p. 34) – that is, the expectations they bring to the learning culture and the expectations that others have both of the learning culture and of them. Importantly, Hodkinson et al. contribute the concept of 'scale' (p. 34) in the consideration of learning cultures. By scale, they mean the different levels of measurement used in map making; research is often focused at one scale or another – the ward in our case; but the notion of learning culture invokes much more than the specific ward – in considering our doctors' learning in transition, we also have to take into account the specialty, the hospital, the Trust, the National Health Service, the field of healthcare more generally and so on. And of course, learning culture is also affected by macro-political fields and power broking by, for example, health policies including targets, the economic interests of the pharmaceutical industry and private healthcare; and all interpenetrated by gender, class, ethnicity, sexuality, etc.

Turning now to a cultural theory of learning, Hodkinson et al. (2008) suggest that the individual is not just 'jetted in' to the learning culture (as implicit in dominant perspectives in medical education). Instead, they are part of the field too. Individuals

both influence and are part of learning cultures just as learning cultures influence and are part of individuals. Learning therefore exists in and through interaction, participation and communication in the learning culture. Drawing on Bourdieu's (1977) concept of habitus, they argue that the impact of each individual within the learning culture depends on a combination of their position within the culture, their dispositions towards the culture and various types of capital (social, economic, cultural) possessed by individual and valued in relation to the field (which operates at the scale of individual interactions as well as at the macro-scales described above). (However, certain conditions in the field can determine the impact of the individual over and above their position, dispositions and capital. For example, understaffing on a ward might necessitate a much quicker immersion of the trainee in responsible practice, regardless of who they are.)

Finally, Hodkinson et al. (2008) argue that each individual has their own horizons for learning which are not fixed but are relational. Opportunities to learn depend on the nature of the learning culture and individual's position, disposition and capitals in interaction with each other. In summary, Hodkinson et al. argue that a person learns through becoming and becomes through learning. Such learning may be deliberative with explicit purpose, and/or it may be contingent, but learning as becoming transcends individual situations and learning cultures. Nevertheless, it is always situational.

## *Conceptualising the Transition Itself: Going Beyond Learning Cultures and a Cultural Theory of Learning*

Doctors' work and training is characterised by frequent transitions between levels, sites, specialty, etc., which disrupt somewhat this metaphor of 'becoming'. For example, each time a doctor moves to a new setting and is immersed in a new learning culture, there is a process of unbecoming because the relationship between habitus and field is dynamic, not unidirectional – capitals may decrease as well as increase. For example, in elderly medicine, where patients' conditions are often complex, trainees in transition to (and from) this speciality frequently find they need to revise their clinical practices accordingly. This could be explained by the concept of horizons for learning, but it does not adequately account for the intensity of clinical settings and clinical practice which demand a more nuanced approach to the relationship between learning and specific practices.

Particular issues about the socio-material also need addressing. Medical practice encompasses notes, files, machines, bodily fluids, patients, drugs and stethoscopes. Although these are acknowledged as part of the learning culture, and learning is regarded as embodied, practical and social, artefacts and other material aspects of practice remain theoretically in the background, whilst participation and communication is foregrounded. Other accounts of learning and practice from the actor-network theory stable (e.g. Nespor 1994) would not privilege the human over the non-human actors in this way.

Other features of doctors' learning in transition need to be taken into account. First, there is an indeterminate time frame during which an individual is able more or less successfully to become part of the field; this involves being able to act in concert with the learning culture and being able to influence it in minor ways. If, within that time frame, an individual does not appear to have learnt sufficiently well, their horizons for learning will be curtailed. For example, nurses will not ask trainees to carry out certain procedures or to intervene with patients if they think they are not 'safe'. The less nurses ask of trainee doctors, the fewer chances there are to learn in practice. Second, because the focus of learning is usually patient-centred, other aspects of the learning culture (relationships with others, work processes, practical issues) may be opaque and/or even invisible for new doctors in transition. Some doctors are much better at making transitions because they have come to understand the significance of the first few hours/days/weeks working with others. Third, because it is assumed that learning is cumulative and that the more transitions a doctor has made, the more they are likely to have 'become', in some specialties and certainly after the first transition or two, little allowance may be made in the practice setting for 'becoming'. Fourth, understandings about 'horizons for learning' are helpful but do not articulate the intensity, urgency and time-bound nature of transition periods in clinical settings.

We therefore conceptualise doctors' transitions as *critically intensive learning periods* (CILPs) to draw attention to these issues. We use the term 'critical' in the sense of 'critical period', a term derived from developmental psychology which refers to a limited time in which some event can occur, usually resulting in some kind of transformation; by 'intensive', we mean to suggest the immediacy invoked by the immediate requirement to deliver patient care; and by 'learning', we mean 'an integral part of generative social practice' (Lave and Wenger 1991: 35). The trajectory of the CILP for a doctor transitioning to a new ward is dependent, not only on the interrelationships between habitus and learning culture, but also on the practices of the learning culture in relation to transitions and the doctor's own understanding of the transition as a learning period. Most importantly, doctors' primary focus in practice is on patient care; this heightens the pressure on doctors who know that all their (in)actions have the potential for harm. This moral dimension is crucial – and the reason why we turned to Thévenot's (2001) ideas about pragmatic regimes of practice. These enable us to refine our understanding such that the trajectory of a specific CILP is dependent on a dynamic relationship between different pragmatic regimes and to attend to moral and socio-material elements of the transition.

## Pragmatic Regimes

Thévenot (2001) recognises the usefulness of the concept of 'practice' which he defines as embodied, situated and shaped by habits without reflection; he contrasts this with models of 'rationally calculated action' (p. 56). However, he argues that

the very breadth of the concept of practice is a problem because it makes it difficult to elaborate different types of agency. For him, there are two main problems with theories of practice such as Bourdieu's: they do not provide 'good accounts of our dynamic confrontation with the world' (p. 56) nor do they account for the moral element in practice which 'shapes the evaluative process governing any pragmatic engagement' (p. 57).

Thévenot accounts for the dynamic aspects of practice – movements of actors, the ways the environment responds and ways actors take this into account – with the notion of pragmatic regimes. He argues that some force – values, norms, beliefs, interests and dispositions – 'some conception of the good' (p. 59) exists which differs from one regime to another although all regimes are grounded on a notion of the good. This moral element is critical because it both drives the agent in their conduct and determines how other agents make sense of this conduct. Thévenot is concerned with practice which is not regular and stable (as is the case in clinical settings, particularly in transitions); his concern with the dynamics of material engagement and the moral element of practice offered us a way of accounting for the imperative of patient care within accounts of learning.

Pragmatic regimes are different ways of engaging with the world in practice. Thévenot employs an engaging and thought-provoking example of how we inhabit our spaces to explain the notion of *pragmatic versatility* or different modes of engagement with the environment. Imagine a room in one's home which we inhabit in ways of 'personal and local convenience'. For example, we might place items on the stairs to remind us of something, or we might use a chair to house our clothes. He suggests that this involves both body and environment – the human and the non-human – for our local convenience. Someone else seeing our usages might think them strange, but after a whilst, they might adopt the practice as their own in a process which 'involves weaving and extending the web of all these idiosyncratic linkages with an entourage'. Such usages can be difficult to speak about because they are so embodied.

Now consider inviting someone to do a house swap. We would have to tidy up the reminders on the stairs, the clothes on the chair, despite their usefulness. We have to exchange our idiosyncratic local conveniences for 'conventional utility'. This ordering might not accord with what others do – for example, our grocery supplies, whilst orderly, may not be stored within the same categories as others – but now everyday language suffices for such arrangements.

Next, consider renting one's house: suddenly we need a better understanding of 'good working order'. We are subject to different tests applying to different things – say, gas appliances or smoke alarms – terms such as defect and misuse become conventionalised through legislation and other formalities. Thévenot calls these legitimate conventions of qualification.

These three forms of pragmatic versatility map onto different pragmatic regimes or particular ways of engaging with the environment: they '…govern our way of engaging with our environment inasmuch as they articulate two notions: a) an orientation towards some kind of good; b) a mode of access to reality' (p. 67). Thévenot defines three main regimes: familiarity, regular action and the public regime of justification.

Within a *regime of familiarity*, human and non-human capacities are intertwined. In the same way as possessions on the stairs serve as an extension of human memory – as a visual reminder fashioned by personal use – artefacts and people are enmeshed through historical practice in an 'accustomed dependency with a neighbourhood of things and people' (p. 68), for personal and local convenience. Thévenot says that such a regime, whilst social, moves us away from an orientation towards others; instead, it invokes the material. He argues that, whilst Bourdieu (1977) was interested in the familiar, his notion of habitus (and subsequent ideas) omitted any consideration of the 'personalised and localised dynamics of familiarity' (Thévenot 2001: 66). Similarly, Hodkinson et al.'s (2008) theories can be criticised for underdeveloping socio-materiality in practice.

A *regime of regular planned action*, in contrast, involves both agents and the world in a 'joint elaboration of both intentional planning agency and instrumental-functional capacity' (p. 70) such that we move away from the classical view that agents are the only elements with planning capacities. Instead of thinking about 'good' as located within human action alone, this enables to understand that pragmatic requirements sustain individual agency– 'it is the good of a fulfilled planned action' (p. 70).

A *public regime of justification* entails collective conventions of the legitimate common good (smoke alarms installed) in some kind of codified way. The 'qualified' person who engages in a codified regime is the agent of practice. By qualification, Thévenot means that people and things have to have certain capacities that can be tested in relation to different orders of worth.

Returning now to our doctors, we will argue that these concepts serve two functions: first, they enable us to speak in more detail about the dynamics of practice, and, second, we can now understand why most approaches to doctors' transitions falter. The regime of familiarity is under-recognised. Instead, the focus is on public regimes of justification and regular action, as illustrated in the requirements for doctors' training outlined earlier.

We will now summarise our study to show how doctors' transitions always involve regimes of familiarity and then focus on three scenarios which show how regimes of familiarity may involve artefacts, people and people with artefacts.

## Background to the Study

The original study (*Learning responsibility? Exploring doctors' transitions to new levels of medical performance*) sought to understand the links between transitions and medical performance both empirically and conceptually (Kilminster et al. 2010). Briefly we drew on Stake (2005) to develop a 'collective' case study of doctors in order to focus on the interrelationships between individual professionals and complex work settings and to take into account the layers of complexity and diversity. We analysed relevant regulatory and policy requirements in order to understand the case study contexts. We then investigated aspects of transition at four regulatory

levels – the individual, their clinical team (and the site in which they were located), their employer and the regulatory and policy context. We used a combination of desk-based research, interviews and observations. We focused on two main points of transition: from medical student to foundation training (F1) when doctors begin clinical practice (see above) and from foundation training or generalist training to specialist clinical practice/specialist training (ST).

We concentrated our study on doctors working in elderly medicine because it involves complex patient care pathways and decision making. Drawing on the same specialty across the study also facilitated exploration of the significance of differing individuals and differing local working practices, within broadly similar overall contexts. This maximised the strengths of the case study approach. Participants were based in six UK hospitals (two university teaching hospitals and four district hospitals).

We conducted focused interviews with 10 F1 doctors (9 women and 1 man) and 11 STs (7 women and 4 men) near the point of transition; most participants completed a second interview 2–3 months later. As well as interviewing, we invited participants to be observed on the ward, near the beginning of the transition, but after the first interview. Whilst F1 doctors were willing to be interviewed, they were reluctant to be observed in practice, possibly because they lacked confidence in having their performance/work scrutinised. In contrast, most STs were willing to be observed. Because STs frequently work with F1 doctors, we were able to make some indirect observations of F1s. We undertook 13 supplementary interviews with professionals in elderly care working with F1s and STs in the study sites.

## Three Scenarios

### *Regimes of Familiarity: Artefacts*

Extract from observation notes:

It is 8.10 p.m. This is Sarah's second night on the elderly admissions ward … she tells me that she had not had any induction the night before, nor received any paperwork. A nurse turns up and asks Sarah her name. Sarah goes to see her first patient (a job handed over from the earlier shift), consults with the Nurse, and then takes a blood sample from the patient. We [researcher and Sarah] go off to get blood analyzed in a nearby room. Sarah explains that the night before she could not find the machine and was banging doors open and shut; she also spoke about how some machines on other wards had passwords protecting them, making it impossible for new users.

The patient's results were 'all over the place'; Sarah was convinced that the problem was the machine, rather than the patient, because she had a similar problem on her first night the day before; she consulted the registrar (senior doctor) who had arrived on the ward, and decided that we needed to find another machine. We ran

down corridors and stairs to the Accident and Emergency department of the hospital where she had worked in her previous rotation; she therefore knew the password. We ran because bloods need to be analyzed within a short window after they're taken. The results looked much better.

## *Regimes of Familiarity: People*

Jane, working at ST level, was a general practice trainee undertaking her hospital-based training. She had recently made the transition to working on an elderly medicine ward at a District hospital with numerous organisational and staffing problems. Working conditions on this new ward were particularly difficult because one of the consultants was off sick 'so we've all had to group together' and 'we're just trying to get through each day.' Jane was acutely aware that they had a relatively junior team of doctors and that she was the most experienced of that team; although she felt more confident talking to families, she did not feel sufficiently knowledgeable in terms of elderly medicine. Jane had thought a lot about transitions because she really did not like making them and believed they had negative effects on relationships. She talked about how, on her first day on the ward, she had seen a lot of patients on her own to help 'conquer the fear'; for her, actually engaging in clinical practice was a relief.

Jane knew in advance that this ward was quite disorganised because she had spoken to the person who had been doing her job previously who had 'absolutely hated it'. Jane had therefore concentrated on establishing relationships:

> I made an active effort to go and introduce myself if I'd not seen someone's face before. Especially the nurses because I definitely think it … gets you off on the right track and they are more likely to give you respect if you respect them. They are used to having so many different doctors as well. So I think if you say I replaced so and so this is who I am then they know my name; they are asking me to talk to families. They are *treating me totally as if I've probably always been there*. (Emphasis added; Interview 1)

As Jane had been warned, the ward was particularly disorganised so that, during her third day, Jane realised she did not know which doctors were present and which patients they had seen: 'I felt quite unnerved about it'. Jane worked with the other doctors to develop some organisation:

> I found what I like to do is I like to decide between us what everybody is doing and to know what everybody is doing – as in who is in that day? How many patients have we got to see? Then we can join together and we can do a plan. (Interview 1)

Jane was observed about a month later. By now she had established strong relationships with two other doctors who liked to work together: 'we are on each other's wavelength'. There was another doctor present who did not fit easily in this team and who was left to go and see the outliers (patients on other wards in the hospital). During the morning, the three doctors, the physiotherapists and the occupational therapist working on the ward frequently met together at a whiteboard with all the patients' names on it. As they consulted the whiteboard and talked, they generally

exchanged information about the patients. However, on this ward, the nurses were conspicuous by their absence both physically and on the board. There were some problems with nursing care, and the board to indicate which nurse was working with each patient was empty; the other professionals all worked around this.

### *Regimes of Familiarity: People with Artefacts*

Sam, an ST, who had started that week on the ward, explained when I arrived that he was looking for a kit to drain someone's chest. The patient was an outlier and therefore 'his' responsibility, so he was going to be carrying out the procedure on another ward. He went into a room full of equipment and asked a nurse there for the appropriate kit. A second nurse became involved in searching. A consultant from the ward arrived and, seeing that the nurse she wanted was involved in a search, asked what Sam was looking for. When he explained, she said that they usually made a home-made 'kit' to do the same procedure, describing how it would work. Sam asked several questions to clarify, and then began to gather up some of the necessary equipment.

When we arrived on the patient's ward, with which Sam was not familiar, Sam found some of the equipment he needed already set out on a trolley in the corridor. He went into the sluice room to prepare a bit further and a nurse came in scolded him, saying that he shouldn't prepare in such an unhygienic environment. When he asked where he should prepare instead, he was told that, on this ward, preparations usually took place in the corridor. (Taken from observation notes)

## Understanding Regimes of Familiarity

These scenarios show how regimes of familiarity operate in relation to individual doctors' transitions. In the first instance, Sarah 'worked around' the unsatisfactory blood readings she obtained from the ward machine and the problems of password-protected systems by finding another machine with which she was already familiar. This machine was some long way away but already part of Sarah's practice. In the second instance, Jane found ways of engaging with both fellow doctors and with nurses to ensure better organisation and integration within the idiosyncratic practices of that specific ward. In the third, Sam found himself immersed in an unfamiliar world of practice assembling artefacts (chest kits) and spaces (sluice rooms and corridors) to come to grips with regimes of familiarity. These examples enable us to develop a more nuanced understanding of doctors' transitions, particularly in respect of learning. The pragmatic versatility of these regimes of familiarity is significant in practice: and a doctor's ability to negotiate such regimes dictates not only whether or not they are able to care adequately for patients but also how they will be judged by others.

For relatively long-standing professionals (and artefacts) on the ward, everyday practice is settled practice with regimes of regular action and familiarity operating implicitly. New doctors in transition, although a regular occurrence, unsettle that practice. There are, of course, expectations that doctors should be familiar with ('prepared for') life on the ward. Some of these expectations are formalised in the requirements of the regulatory bodies, education providers and employers – the public regime of justification. And clinical teams expect to familiarise doctors with regular planned action such as care pathways or other explicit aspects of local practice. There is some recognition of learning in transitions, although it is very much concerned with the public regime of justification, for instance, in requirements about health and safety training, trust training for basic life support, protocols and so on. But, as our three scenarios show, day-to-day practice involves regimes of familiarity which are harder to disclose or talk about because they are accretions of accommodations, workarounds, idiosyncracies, avoidances and so on. Crucially, some regimes of familiarity may contradict public regimes of justification. For example, the preparation of clinical equipment in an open corridor would contravene infection control regulations. Also, as for those storing their reminders on the stairs, such 'local conveniences' can be difficult to identify because they are so embodied and embedded in practice.

Trainees, too, need to be able to insert themselves into these ever-changing regimes. In the second example above, Jane understood this as she showed in her comments about being recognised and asked by the nurses to take on tasks; her engagement in the local practices also afforded her further opportunities to develop her practice. However, Jane's colleague who was manoeuvred into working with ward 'outliers' because he did not fit in to the local team had fewer opportunities to learn the local practices and thus to make a successful transition. Sam did not pick up on the local practice of preparing clinical equipment on a trolley in the corridor and complained about the fact that he had to prepare a chest drain kit, rather than being given a complete package.

But trainees need also to develop their own practices which are able to accommodate other regimes of familiarity: Sarah quickly worked around the problem of the local ward machinery when she realised it did not work (although why she had not reported its malfunction the night before is mysterious). Her actions were embedded in her historical relations with the artefacts for analysing blood. And Jane realised that, if the ward was disorganised, she would have to invent her own routines to ensure that patients were seen efficiently. These examples demonstrate that as well as learning in transition, trainees have to learn to make transitions. Jane, in particular, demonstrated her own pragmatic versatility to respond to her dislike of making transitions.

So, to return to the relationship between the trajectories of CILPs and these pragmatic regimes, although public regimes may be learnt beforehand (ideas about preparedness and education for practice can encompass the public regime very well), and to a lesser extent even regimes of regular action can be made explicit for new arrivals ('this is how we do it here'), there is no way around the necessity of learning regimes of familiarity in practice. The moral purpose – the good governing the interaction – does not change but its manifestation does.

## Conclusions

### *Implications for Understanding CILPs*

We have tried to show that our conceptualisation of transitions as CILPs is important for several reasons. First, small actions during the CILP are often treated as symbolic of a trainee's ability to carry out tasks. Those small actions often require trainees to have picked up on ('learnt') the regimes of regular action and familiarity speedily; the more they seem to have done this, the more they are afforded new opportunities for learning. But the more experienced the doctor, the less leeway they have to learn 'how we do things round here', sometimes being expected to practise immediately without any period for learning.

Second, the intensity of the CILP comes about not only because of the pressure of clinical care which cannot be overemphasised but also because others need quickly to make judgements about capability in order to assure patient safety. The CILP might involve the introduction of new regimes, as in the example above of Jane 'getting organised'. Third, the extent to which the specific learning cultures of the clinical workplace (at ward and at institutional levels) recognise transitions as CILPs contributes to or inhibits the performance of new doctors. Some aspects of the CILP are sometimes recognised and institutionalised in practice in a few specialties such as emergency medicine due to specific working practices and expectations. This involves a markedly different learning culture from the ones we witnessed within elderly wards and suggests that a different approach is possible. Of course, on some wards, some aids to learning were offered – handbooks, for example, or being shown around. But this was not, by any means, standard.

### *Implications for Understanding Learning and Practice*

Existing ways of thinking about practice do not suffice when it comes to doctors. Although all practice is governed by some notion of 'good' as Thévenot argues, some practices – doctors' for example – may be more highly charged than has been written about in much of the literature. Further, whether or not junior doctors are treated as newcomers in their transitions to new areas of work and levels of responsibility, the nature of the work itself and the conditions for work mean that such doctors may at times have to be experts, required to act with full responsibility in the absence of expert others. Whilst the problem has been recognised by developing the notion of 'preparedness', this does not suffice, because the idea relies on an underlying conceptualisation of the trainee doctor as a cognitive, a social, a historical being. Here, we have shown that clinical practice involves different pragmatic regimes: familiarity, regular action, and justification. Transitions which involve doctors caring for patients necessitate engagement with all three regimes. The regimes of familiarity on which we have concentrated are relational in that new doctors have

to be accommodated and new doctors have to accommodate other people's regimes of familiarity. There is no preparation for such accommodation, although learning that such regimes exist – that such accommodation is to be expected – would certainly contribute to a better understanding of learning in transition.

## Endnote

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# Part III
# Practice, Learning and Change

# Chapter 14
# Why Do Practices Change and Why Do They Persist? Models of Explanations

**Silvia Gherardi**

## Introduction

Innovation can be studied using different disciplinary approaches and according to numerous conceptualizations of what constitutes innovation and then according to which of its dimensions should be analyzed. When one looks back on innovation studies, it is evident that by now distant is the time when anthropology and sociology were the humus for development of the debate on innovation diffusion processes. It appears nostalgic to look back to the agricultural practices of the farmers of Iowa and the hybrid maize that the rural sociologists Bryce Ryan and Neal Gross studied in the 1930s, (Ryan and Gross 1943), thereby initiating analysis of the diffusion process and the relative S-shaped curve,[1] although these are topics which still fascinate scholars.

In the contemporary literature, if we refer to the moment of the discipline's institutionalization as being, for example, *The Oxford Handbook of Innovation Studies* (Fagerberg et al. 2005), we see that it has been dominated by evolutionary economics[2] and that the conceptualization of innovation has changed. Knowledge, not corn, has become the object and the resource to innovate: it is the production and circulation of knowledge that are considered the determinants of the capacity of firms to innovate (Kogut and Zander 1996). Innovation has been defined by various authors in terms of the generation and application of new knowledge in the creation of products, processes or services to be placed on the market (Dosi and Marengo 1994; Davenport and Prusak 1998; Van de Ven et al. 1999).

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Innovation is preferentially conceptualized as an 'innovative system' (national, regional and sectoral, i.e. product specific) made up of networks of actors and relationships. These concepts were first introduced by Freeman (1982), Nelson (1993) and Lundvall (1992) and thereafter developed by Malerba (2004) and others. The actors usually considered are governments, research institutes and firms (as well as the various hybrid forms of their associations), but the central actor is always the firm in its various configurations and with its leadership. For strategy studies, in fact, the key determinant of innovation in organizations is the tension between new and old knowledge (Leonard-Barton 1995): what has been called the 'paradox of novelty', that is, the tension between what has worked in the past and what could work in the future; a tension between exploitation of the knowledge already possessed and exploration of new fields of knowledge (March 1991). Relations among such actors are equally diverse, ranging from competition through collaboration to strategic alliances.

The key point is that knowledge – defined mainly within the economics of knowledge as a 'new' resource that flanks the traditional means of production – performs a key role in systems of innovation. Access to knowledge, its accumulation as well as its application in relation to changes in the operational environment and to internal creativity constitute the most common representation of organizational learning, although it is a somewhat reductive one. It implies, in fact, that all the actors in an innovation system learn, and that the aim of the system is constant growth, with scant attention paid to aspects such as social productivity (the reduction of poverty) or relations with developing countries amid globalization (Cozzens et al. 2008).

When the attention of scholars shifts from the mainstream and problematizes the concepts of knowledge, learning and innovation using a socio-organizational approach, the panorama changes radically, and the view deriving therefrom can either be complementary to the previous one or an alternative to it. Consequently, contrary to evolutionary economics, which considers the knowledge possessed and not the processes of knowing, a social (practice-based) approach to knowing processes emphasizes that knowledge is produced as situated and sociomaterial practice within an intra- and inter-organizational network (Nicolini et al. 2003; Gherardi 2011).

In the sections that follow, I shall adopt a practice-based approach to innovation that conceptualizes it in processual, incremental and continuous terms, rather than static and discontinuous ones. Innovative processes will consequently be analyzed as situated in the everyday activities and practices of organizing, so that innovation is conceptualized as neither separate nor separable from learning, working and organizing (Brown and Duguid 1991). When one starts from this point of view, knowledge becomes a collective activity which takes place within work practices and is enacted by a community of professionals who possess and develop the knowledge necessary to work, organize and innovate. From this perspective derives a dynamic view of innovation as the constant refinement of practice within an ecology of sociomaterial relations.

## Innovation as a Continuous Process in the Practices of a Community

What is meant by innovation as a continuous process based on practices can be conveyed by the following quotation from Weick (1979: 247):

> If an organization updates itself on a *daily* basis then it's possible for that organization to maintain a close fit with its surroundings (italics in original).

In other words, innovation is not just the result of deliberate activities that introduce discontinuities in working practices; it is also produced on a daily basis by all those who engage in routine work practices in their jobs. It is this assumption that has induced scholars such as Brown and Duguid (1991) to employ the concept of 'community of practice' in order to bring into focus the canonical and non-canonical practices of a group of people who work and, as they do so, develop, conserve, re-elaborate, transmit and innovate the knowledge necessary for what they do.

Within social studies on organizational learning and knowledge management, this has allowed the shift from knowledge (knowledge as an object) to knowing (knowledge as a process and a collective activity) and therefore from an epistemology of possession (Cook and Brown 1999) to one of practice – to a conception, that is, of knowing as a collective social activity contextual to work practices (Gherardi 2001).

The first studies to use the expression 'community of practice' (Lave and Wenger 1991; Orr 1996) were interested in understanding how learning is tightly interwoven with the development of a collective identity and then in how such a community could be 'cultivated' so as to support the creation and sharing of knowledge (Wenger et al. 2002). Brown and Duguid considered a community of practice more specifically to constitute a particular locus for continuous and incremental innovation in so far as it enables its members to insert spaces among canonical (i.e. predetermined) practices in which to develop non-canonical views – that is, ones richer and more flexible and subject to constant change. Within these spaces, there develops and is preserved a situated knowledge which becomes a collective asset and the source of idiosyncratic power. Brown and Duguid's contribution has given rise to a set of studies, still relatively little developed, that seek to understand innovating as a situated activity.

The assumptions on which innovation may be considered as a continuous process situated in work practices are the following:

- Knowledge is produced through participation in a set of practices.
- Participation in work practices leads to the development of a collective identity.
- Participation in a practice entails legitimate participation in the negotiation of the meanings of those practices and the ethical and aesthetic criteria for evaluation of practice. What constitutes a good (beautiful) practice or a bad (ugly) practice is subject to continuous discussion and negotiation among the participants.

- Innovation as a continuous process is produced through continuous refinement of practices by those who have created them.

From these assumptions arises a view of knowledge as not a simple 'object' that can be transferred from person to person or from one organization to another; on the contrary, it is something that emerges from participation in a practice (Blackler 1995; Orlikowski 2002; Tsoukas 2003) and it is practical activity in itself (Gherardi 2000). Practice is therefore the locus of production of knowledge, and practising is a constant source of innovation.

A first step in development of this conceptual framework has been made precisely by the criticism of the concept of community of practice (Gherardi 2009a) which has reversed the two terms to speak of the practices of a community – instead of community of practice – the purpose being to stress that knowing, doing and innovating interweave. The proposal that the emphases on the two terms should be reversed has been present in the literature for some time (Gherardi et al. 1998; Brown and Duguid 2001; Swan et al. 2002; Roberts 2006), and it has recently given rise to a broader debate which has rediscovered the heuristic value of practices in organization studies and presaged a 'practice turn' in the social sciences (Schatzki et al. 2001). However, it should be borne in mind that, besides the idea of the constant improvement and change of practices by members variously motivated to innovate, a community may also be a barrier against learning and innovation (Amin and Cohendet 2004; Tagliaventi and Mattarelli 2006).

In the case of radical innovations, for example, the community of practice may prove unable to fit practices to the logic of continuous innovation. In a critical rereading of the literature on communities of practice, Roberts (2006: 630) points out that radical innovations require new communities: 'Radical change may be very difficult to bring about within existing communities and may be more easily introduced through the destruction of old communities and the emergence of new ones'. Moreover, in an organization conceived as a 'community of communities',[3] continuous innovation may not be desirable when the organization comprises a multiplicity of heterogeneous communities (Swan et al. 2002). In fact, whilst it is true that communication flows more easily within a single community, that same community creates barriers to communications among different communities. It may be difficult for knowledge locally produced within a single community to be transmitted and shared beyond its boundaries precisely because that knowledge is specific to the context of production and the group of people who have produced it by acting together in that context and at that time (Yanow 2004: 10). Innovations may therefore be at risk of being trapped within a system of idiosyncratic relations so that they do not participate in innovative processes that traverse the boundaries of the individual community.

These considerations should induce us not to romanticize the community of practice as the privileged loci of innovation but rather to bear in mind that continuous innovation is indeed a type of innovation but it coexists with other dynamics of innovation that may introduce discontinuities. Moreover, continuous innovation may not be a good in itself when an ecology of learning is considered. Let us

therefore extend the treatment to interaction among several communities from the perspective of an ecology of knowledge (Star 1995) so that we can consider both the level of local practices and that of interrelated practices.

## The Organizational Texture of Practices

The practices of a community are almost never confined within an organization, and the theme of boundaries and boundary relations assumes specific importance when one considers that communities extend beyond the confines of the single organization or that they exist independently of an organization and may perform an important role in the creation and transfer of knowledge. Moreover, the practices of a community may not have distinct geographical boundaries; on the contrary, as Amin and Cohendet (2004:12) suggest, they occupy spaces of 'relational proximity' and they constitute 'one spatial form of knowing through communities'. If, for example, one thinks of the collaboration among virtual communities engaged in scientific and technological research, one gains an idea of how practices of innovation production are based on geographically dispersed communities identified more with the profession that with the organization.

Given that the concept of network is also widely used in evolutionary economics and the model of distinctive competences (resource-based view), it should be stressed that it has a social, dynamic and not structural connotation in the sociology of practice. To furnish intuitive understanding of this difference, we can draw on the striking image provided by Owen-Smith and Powell (2004) of how network learning has been studied on the 'resource-based view': networks are viewed as containers of knowledge and network relations as tubes which convey knowledge from one place to another.

Similarly, as will be illustrated in this section, the relations that connect practices and extend them beyond the boundaries of an individual organization, or among heterogeneous communities within the same organization, are conceptualized not as structural relations but as connections-in-action.

The notion of boundaries – or better, the fluidity of boundaries – is crucial for understanding innovation as a continuous process both within an organization and within an organizational field. In this regard, mainly three interpretative concepts have been developed which have both notable similarities and significant nuances. I shall compare the concepts of a network of practices, of an epistemic community and of the organizational texture of practices.

The term 'network of practice' was introduced by Brown and Duguid (2001) to denote social networks whose members are not necessarily physically co-present but engage in common practices and accordingly share a tacit knowledge that gives rise to learning processes in the network. Consider, in fact, that the heterogeneity of opinions and specialist expertise is an important source of innovative ideas, and that collaboration among functional units is necessary to accomplish innovations.

The dynamics of innovation within the network derive from the propensity of its participants to transfer knowledge among different professional communities or among different functional groups. This is therefore a largely spontaneous social dynamic fuelled by trust and driven by 'soft' coordination mechanisms (Faraj and Sproull 2000). It is precisely for this reason that networks of practice pose a dilemma for managers and the management of knowledge 'from outside': on the one hand, managerial control is necessary so that the organization can reap the advantages of dispersed networks; on the other, the emergent and spontaneous nature of networks formed by the desire of professionals to share and discuss their working practices means that they tend to evade managerial control (Agterberg et al. 2010).

On the one hand stands the conviction that the majority of innovations occur on the borders between disciplines or specializations (Leonard-Barton 1995); on the other, the awareness that knowledge is both a source of innovation and a barrier to it. In the medical field, for instance, it has been found that networks of practice are responsible for both the diffusion and non-diffusion of innovation, especially when the professionals work in a mono-disciplinary community (Ferlie et al. 2005). To be noted in this regard is that, in the case of networks for the development of innovative products, such networks of practices are formally constituted and involve a group of 'developers'. Specific organizational forms supervise networks of practices located on the boundaries between developers and users, and they constitute important loci of innovation (Hasu 2001), especially in relation to technological innovations where the users possess the knowledge necessary for the development of the relative innovative technologies, as is typically the case in the medical and healthcare sector (Hyysalo 2010). Conversely, a different organizational form concerns the organizational interactions and procedures of those networks of practices formed on a voluntary basis. Typical examples are the Linux community and various open-source practices, or the participation by patients in the collaborative production of medical knowledge about rare diseases.

Networks of practices may then have more permeable boundaries, both because the participants can take part in numerous networks (Handley et al. 2006) and because it is not always easy to establish where the boundaries lie.

The literature comprises three main interpretations of the management of knowledge across boundaries: the interpretation based on information transfer which considers knowledge to be an object that can be conserved and transferred without alterations, the interpretative one which emphasizes the social processes of sensemaking and meaning production and the political one which stresses that the sharing of knowledge is opposed by the interests of various actors. These three interpretations of knowledge transfer processes have been integrated into a common framework (Carlile 2004: 563) which identifies three levels of sharing: syntactic, semantic and pragmatic. On studying the development of a new product, Carlile pointed out three specific modes of knowledge transfer corresponding to each level: a syntactic competence, relative to the development of a shared vocabulary, which operates in the transfer of the specific knowledge of each subunit; a semantic capacity, relative to the development of the shared meanings necessary to identify novelties, which operates in the translation of specific knowledge; and a pragmatic

competence, relative to the development of exchanges, negotiations and common interests, which operates in the transformation of the knowledge of each subunit. Hence, transfer, translation and transformation are three processes that govern the transfer of knowledge at the boundaries among different communities participating in a network of practices.

On a relational and dynamic view of networks, therefore, their boundaries should therefore not be taken as given. On the contrary, as Østerlund and Carlile write (2005: 95), 'The boundaries of the community are not given by the definition of the term itself but by the community participants' empirical practices'. In other words, membership or otherwise of a community and the boundaries of that community are constantly drawn and redrawn by the interactions among participants and by the biography of the object that the network produces. I therefore propose that such boundaries should be considered as transitory, permeable and in constant construction and reconstruction, according to the interpretative negotiation of the meanings of practices and the duration of the participation.

I conclude by pointing out that the expression 'network of practices' has been mainly employed in relation to the transfer and sharing of knowledge across boundaries of various kinds and in relation to product or service innovation. When the specific object of the network's practices is knowledge, the expression 'epistemic community' has been used.

The expression 'epistemic community' was taken up by Knorr Cetina (1999) to denote communities deliberately engaged in the production of new knowledge, either within research and development departments or within an international group of scientists or a temporary community taking the form of a task force. An epistemic community consists of people working on a set of knowledge issues deemed important and whose organizational principle is a procedural authority functional to the pursuit of a common enterprise (Cowen et al. 2000: 234). Epistemic communities may have a highly codified stock of knowledge (scientific manuals, laboratory protocols, computing methods); but paradoxically, this knowledge remains tacit and is not discussed until a controversy arises. The distinctive feature is that epistemic practices are focused expressly on the production of new knowledge, with scant *a priori* knowledge of the possible domains of its application. Unlike the communities of practice in which autonomy and identity are important for the group's development, in epistemic communities the group's creativity is more important because participation in the community makes it possible to envisage future opportunities. Given that the participants are heterogeneous, the explicit community's purpose is the production of knowledge (though not always encoded) and its circulation. In such communities, there is an emphasis on producing codes of behaviour and shared practices in that the participants cannot rely on shared values.

Epistemic communities have been mainly studied in relation to the organization of scientific projects and forms of collaboration which traverse the boundaries of individual laboratories. The 'invisible college' therefore constitutes the arena of participation, with the consequence that professional identity, and therefore the problem of boundaries and the transfer of knowledge across them, assumes features different from those of network of practice.

Finally, if one changes perspective and assumes a processual view whereby only the connections during the practice are subject to analysis, the term 'organizational texture' of practice can be used to refer to ongoing interactions and connections. In so doing, we abandon the idea of boundaries since both the research on networks of practice and on epistemic communities have proved the weakness of the operation of closure around either a network or an invisible college. Instead of focusing on separations and distinctions and only later asking for how to overcome them, we may focus on how connections are established and developed over time, stretching the texture of the practice accordingly.

The idea of organizational texture (Strati 2000) did not arise directly in the field of knowledge studies but rather in relation to how the boundaries of an organization dissolve when researchers assume the temporal and processual perspective in following an object's course of action, trajectory, biography or becoming (Appadurai 1986; Langley and Tsoukas 2010). Connections-in-action are also important for interpretation of how an innovation 'travels' in time and acquires definitive form.

Innovation is the product of connections. Callon (1999, cit. in Amin and Cohendet 2004: 68) effectively expresses the concept thus:

> Innovation is by definition an emergent phenomenon based on gradually putting into place interactions that link agents, knowledges, and goods that were previously unconnected, and that are slowly put in a relationship of interdependence […]. What marks innovation is the alchemy of combining heterogeneous ingredients: it is a process that crosses institutions, forging complex and unusual relations, the market, law, science, and technology.

The term 'organizational texture' is based on the idea of connection-in-action which illuminates the constitutive character of texture: that is, endlessly interweaving relationships. To interpret how a texture is composed, one must have the wisdom of the weaver in following the pattern of its warp and the weft. The researcher thus puts him/herself in the place of the weaver to follow how the threads are woven and knotted together to form a thicker or thinner texture. Practices are taken in a web of unending coreferential processes: a practice is formed by the overcrossing of other practices.

This concept allows us to interpret organizing and innovating as social processes in which distributed knowledge is activated through establishing connections-in-action and giving them specific forms within a situated practice.

The three concepts should be used appropriately, however, and especially when considering what managerial tools and organizational forms are best suited to each aggregate of practices. To clarify this point, I cite as an example a case study on an English charity – Macmillan Cancer Relief – which has established a texture of learning practices (Donaldson et al. 2005). Although these authors do not use the concept of texture, they describe how the organization mobilizes the knowledge deriving both from work groups of the job and from patients and caregivers. Put briefly, this organization has created and sustains a certain number of groups and communities that rotate around its organizational structure and extend the range of its organizational action well beyond the organization's boundaries. Because these groups are not part of the organizational structure, they cannot be managed through the organizational practices usually employed for work groups. Their management

therefore comes about in other ways: conversations, the sharing of stories and the construction of a common understanding materialized in tangible mechanisms such as documents, standards and action programmes.

In conclusion, we may say that the concept of practice underpins an approach to the analysis of innovation in which not only the boundaries between the organization and innovation systems are permeable and constantly traversed, but a texture of organizing is produced and maintained by connections. Instead of boundaries that separate, a practice-based approach seeks to determine how boundaries are connected in courses of action and how the micro social merges with the macro in a texture of practices. From this point of view, therefore, continuous innovation is the specific dynamic of practice change; it is a constant process of practice refinement.[4]

## Continuous Innovation as the Refinement of Practices

The continuous refinement of practices can be better understood in light of the concept of the community activated by participation in a practice. At the beginning of the chapter, I recalled the heuristic value of practice as a unit of analysis which allows adoption of an ecological model of interpretation; a model in which no element (either human or artificial) has ontological priority over the others. Hence, action does not start from the actors and their intentionality; rather, it 'takes place' in the sociomaterial relations (Orlikowski 2007) that connect those elements together. It is on this assumption that practice can be interpreted as the locus of working, organizing and innovating (Nicolini 2011).

A further specification is necessary to understand the dynamic of practice refinement as a continuous process of innovation. Practice, in fact, should be considered not only as a system of activity but also as a social relationship between the practice and those who create and support it. When work practices are viewed from the standpoint of the practitioners, that is, 'from within', what is of interest to the researcher is the intellectual, passionate, ethical and aesthetic attachment that ties subjects to objects, technologies, the places of practices and other practitioners.

There has developed within the sociology of translation (or actor-network theory, ANT) an interesting theory on the subjective attachment to action that problematizes the way in which the subject is conceived and how it relates to the object and the context. Just as in ANT studies, 'objects have been turned into networks and thereby radically redefined, an analogous project is now starting to take shape: the study of subject-networks' (Gomart and Hennion 1999: 220). This is a project that centres its theoretical and empirical inquiry on the attachment of subjects to the objects of their passion and asks how practitioners are able to put their passions into practice (Gherardi et al. 2007) and how practising their passions may contribute to the development of a field of practices and to the elaboration of an aesthetics of practice leading to innovation and/or persistence of practice.

Attachment is defined as the reflexive result of a corporeal, collective and orchestrated practice regulated by methods that, in their turn, are ceaselessly discussed

(Gomart and Hennion 1999) within the community of practitioners. The attachment to the object of practice – be it of love or hate – is what makes practices socially sustained by judgements relating not only to utility but to ethics and aesthetics as well. The relationship with the object exemplifies a relation in which the practitioner is an 'amateur' – somebody who cares about the object of his/her work/profession – and he/she is indeed active, that is, deploys a set of situated practices in order to use and enjoy the object of his/her passion individually and collectively; but he/she is also passive, in that he/she deliberately, and in 'cultivated' manner, abandons himself/herself to the effect of the object in so far as he/she predisposes the material conditions for the enjoyment of what is collectively done, and socially shares this passion within a community of amateurs.

The problem of the attachment that ties the practitioner to his/her practice and its object, as well as to his/her identity as a practitioner and to other practitioners, is a problem of a passionate and pleasurable or painful relation both shared and collectively elaborated. Attachment is not only the relation with the object and the deliberate production of the desired effect, but it is also the effect of the collective formation of the taste (taste-making) at the moment when the aesthetic judgements supporting the practice are formed. Taste-making has been defined as the process of giving voice to passion and negotiating aesthetic criteria that support what constitutes 'a good practice' or 'a sloppy one' and 'a beautiful practice' or 'an ugly one' within a community of practitioners (Gherardi 2009b). It is formed within situated discursive practices. The aesthetic judgement is made by being said – and therefore it presupposes the collective elaboration and mastery of a vocabulary for saying – and it is said by being made.

We can draw an interpretative scheme from the sociology of attachment which enables us to consider practitioners in a wider way: not for what they do and their competence in doing, but also for their attachment to the object of their practices, as 'amateurs' of what they do. We shall thus see emerging in the practitioner-amateur the figure (and the lexicon) of the critic, he/she who formulates aesthetic judgements on practice.

The continuous innovation of practice therefore springs from the constant elaboration of the canons with which the community appraises and judges the object of the practice. Dissent is therefore an element that drives the constant endeavour to refine the methods and meaning of the practice for those who derive identity from it. The pleasure of practising and sharing that pleasure, passion as attachment to the object of the practice, and mediation with the tools of the practice are further elements that sustain reproduction of the practice and which make it possible to answer the questions as to why a practice continues to be practised and how it changes by being practised.

The attachment of practitioners to the object of practice is constructed in the moment and in the space of the practising, in intuitive knowledge. Judgements on the correctness or otherwise of the practice are not external to its practising but are formed within the action and are not only *sustained* by practice but *constitute* it. Internal appraisal of performances, conducted from 'within' the community, fashions the vocabulary of taste necessary to refine practices whilst skilfully repeating them. And, within repetition, to share the pleasure of doing is also to share of the pleasure of being.

The analytical elements that enable empirical investigation of the innovation process as the continuous refinement of practice can be summarized thus:

(a) The mobilization of sensible knowledge (the bodily ability to perceive and to taste), the sharing of a vocabulary for appraising the object and the object in place. Developing a vocabulary of appraisal enables the community of practitioners to communicate about sensible experiences, to draw distinctions of taste and to spread them through the community.
(b) The mutual constitution of the subject and the object within practice. Taste-making crafts identities and knowledgeable communities at the same time, and sharing an aesthetic provides the feeling of belonging to a specific community within a community.
(c) The aesthetic of imperfection accounts for the continuous refinement of practices and their historicity in relation to past practices and their continuation in future ones. If we use Kant's definition of aesthetic judgement as a judgement on perfection/imperfection, we can see in the formation of taste, both its dependence on aesthetic judgements made in the past and embedded in current practice, and the aesthetic of imperfection that through repeated attempts and the inner dynamics of the critical aesthetics constantly refines the practice.

This dynamic that enables the reproduction of practices as a constant process of refinement has been aptly defined by Béguin and Clot (2004) as 'répétitions sans répétitions' (repetition without repetitions) or by Gomart and Hennion (1999: 238) as 'hyperesthesia', a particularly developed competence to perceive, practise, combine and elaborate the object of the practice. Also in Heidegger (1927), repetition is not repetitive, it is a kind of redundancy which improves practices.

## Conclusions

For some time now, innovation scholars of various interpretative persuasions have called for greater attention to be paid to phenomena such as conflicts, interests and interactions when innovation is studied as a process. Thus, asserted is the need to integrate the classic view of innovation as a rational process which proceeds by stages, with approaches more oriented to process analysis, more sensitive to the contextual conditions of innovation and more attentive to phenomena related to power and conflict, as well as to the institutional dimension.

This redefinition of innovation studies has therefore opened specific space for a more micro, more sociological and more interpretative approach. The so-called practice turn in the social sciences has led to rediscovery of the interpretative power of the concept of practice, and 'practice-based' studies on organizational learning and knowledge management have furnished the vocabulary and the interpretative framework that enable innovation to be conceptualized as a continuous phenomenon situated in work practices.

If practice is conceived as a situation in which human and non-human agents constantly interact, the distinction among working, learning and innovating as

distinct and separate activities disappears. Practices may thus qualify as the units of analysis in study of how old and new knowledge can coexist in their constant tension and of how innovation can be a continuous process that, not in discontinuity but continuity, constantly carries forward a dynamic refinement of practices through the production and mobilization of situated knowledge. Practising a practice not only leads to stability through habituation but also to diversity, brought by the unstable structure of practices themselves. There is always an ambiguity, and undecidability in practice, as in an open text.

A practice-based approach to the innovation process is enriched when analysis of the more structural dimensions of the context and the circulation of knowledge originating externally to the organizational texture of practice is flanked by consideration of internal cultural dynamics. Innovation is driven by utilitarian and instrumental purposes; but it also comes about because the object of a practice is socially important for those who bring it into being, so that the endeavour to refine the practice proceeds *pari passu* with development of its practitioners' identity and with the symbolic dimension of the activity.

When innovation is viewed as a continuous process, the concern is to describe the sociomaterial mechanisms that enable innovation to travel within the course of action of a practice extended in time and space and through a host of heterogeneous actors. In this way, it is possible to describe how innovation results from both deliberate and unforeseen or improvised processes according to a 'fuzzy' logic, following numerous routes, generating a multitude of ideas and establishing numerous connections-in-action during a constantly changing process.

A practice-based approach therefore furnishes a specific point of view on innovation and change because it shows how the subjective relationship between practitioners and the object of practice comprises a distinctive dynamic of innovation based on continuous refinement of that practice. This process of innovation by refinement may be spontaneous and emerge from the community of practitioners, but it may also be sustained organizationally and institutionalized as a learning practice.

## Endnotes

1. The graph of the distribution of the adopters of an innovation resembles an S, where the *x*-axis is time and the *y*-axis is the number of subjects that adopt the innovation.
2. This theory began with Nelson and Winter (1982). It considers organizations to be the containers of knowledge embodied in routines. Its evolutionary principles are variety and selection, and organizational routines constitute the building blocks of distinctive competences, that is, the firm's abilities to integrate and rapidly reconfigure internal and external knowledge so that it can adapt to changes in the environment. Unlike the strategic approach, it does not assign a particular role to management.
3. According to Brown and Duguid (1991), an organization can be conceived as a collective of communities, not simply of individuals, internally to which experimentation is legitimate, and differences of perspective among communities may be amplified through interchanges among them. This comparison and competition among ideas may produce the sudden impulse that

sparks off organizational innovation. In this way, even large organizations, if they are structured reflexively, may become highly innovative and able to deal with discontinuities. The necessary condition for this to happen is that internal communities must have a certain degree of autonomy and independence from the dominant vision of the world. Brown and Duguid suggest that large firms can compensate for their traditional handicap in regard to innovation by adopting a philosophy of support for communities of practice able to foster innovation.

4. I wish to stress that the concept of refinement has no ameliorative connotations; rather I use it to point to the endogenous process of change within a practice from the point of view of its practitioners, whatever the consequences might be.

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# Chapter 15
# Learning Organizational Practices That Persist, Perpetuate and Change: A Schatzkian View

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## Introduction

In our recent study of contemporary learning practices in organizations (Boud et al. 2009: Chappell et al. 2009; Price et al. 2009), we sought to examine ways that learning occurs through everyday work practices, how learning is influenced by these practices and, in turn, how learning influences these practices. We have been seeking to appreciate the learning features of work without the burden of using the conceptual apparatus of educators or trainers, which can tend to assume that workplaces are merely sites for learning to take place. The purposes of organizations are manifest in the work that they do and what they produce; learning is a necessary and intrinsic part of that work, but work cannot be subordinated to learning.

Our focus was on what we termed integrated development practices (IDPs). These are organizational practices that (a) facilitate learning in a way that is embedded in work practices, (b) are independent of formal training programmes and are not defined explicitly in terms of training and education and (c) are managed or implemented by people whose primary job function is not training and learning (Chappell et al. 2009). In other words, we were interested in what might be called learning integrated with, and driven

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by, work, as part of ongoing organizational processes to deliver purposive outcomes. In this chapter, we focus on one particular aspect of our research findings on learning: how workers learn to perpetuate and change the work practices of an organization.

We see the apparent paradox of continuing to enact practices while also choosing to change those enactments, as a conceptually important issue for learning and one that challenges conventional theories of organizational change and notions of organizations as desirably stable entities. In examining this nexus between change and learning, we have found it fruitful to look to practice theory (Barry and Hansen 2008; Nicolini et al. 2003; Schatzki et al. 2001) and, in particular, to the theoretical concepts of Schatzki (1996, 2002, 2005, 2006). A Schatzkian view of practice conceptualizes an account of practice that imbues enactments of practices with indicative guides for future enactments. At work, people perform work and interact with others for specific purposes and in ways that set up possibilities for different future actions. Workers learn to carry forward practices in ways that reinforce similar past enactments (i.e. those practices persist and perpetuate) and adapt them for contextual factors (i.e. those practices change).

We first describe the value of using Schatzkian practice concepts in contrast to some conventional theorizations of change that favour discreteness and stability. We then draw upon empirical data from an Australian utility company to contextualize one example of IDPs – safety practices – to draw out the implications for how workers learn when they perpetuate and change practices. We show that workers' safety practices carry forward the cultural values, purposes and outcomes of organizational work. At the same time, through emergent and interactional understandings, these practices are also enacted in variable and sometimes unanticipated ways, thereby changing them and creating a practice that has elements of similar past practices together with new elements. Further, we show that for this utility company, the learning that arises from these kinds of enactments goes beyond the specifics of safety compliance to alter interrelated organizational practices such as project management and relationship development. We conclude by making some observations about the value of linking theories of workplace learning and change for practice-based research.

## Theorizing Practice in Organizational Work

### *Schatzkian Practice and Organizing*

As earlier chapters have discussed, a contemporary shift in theorizing organizations is occurring through the current proliferation of research studies that embrace the 'practice turn' to organizational studies (Barry and Hansen 2008; Nicolini et al. 2003; Schatzki et al. 2001). The notion of practice has been linked to knowledge (Antonacopoulou 2006; Kemmis 2005; Orlikowski 2002), learning (Gherardi 2000; Schulz 2005) and change (Schatzki 2002, 2006; Staudenmayer et al. 2002; Tsoukas and Chia 2002) with greater consideration given to dynamics and spatiotemporality than prior discussions on activity, acquisition, transfer and stability (Engeström et al. 1999; Sfard 1998; Tuomi-Gröhn and Engeström 2003).

A practice orientation goes beyond recognizing the importance of activities or the agency of people who perform them. Rather, it focuses the analytic lens on the nature of the associations connecting people and artefacts in interactive ways that give rise to understandings of a relational theory of action (Emirbayer 1997). Such associative understandings provide explanatory power when examining, for example, innovation practice (Dougherty 2004), strategy practice (Jarzabkowski 2004; Whittington 2006), teaching practice (Dunne 2003) and more general understandings of professional practice (Green 2009).

For Schatzki (2006: 1863), organizations are 'bundles of practices and material arrangements' that continually unfold, influencing outcomes, actions and motivations for actions and their consequential effects. Practices are 'structured spatio-temporal manifolds of action … that have two basic components: action and structure' (Schatzki 2006: 1863–1864). Structural elements include (1) know-how concerning the actions or the 'how-to' of practice, (2) rules that specify guidance or instructions, (3) teleo-affective structuring that explains the purposes or emotions that cause people to act towards possible ends and goals, and (4) general understandings that may be relevant, for example, the nature of a job. Practice actions are human performances that draw from these embedded structural elements. Practices often interrelate with other practices (i.e. organizations are a portfolio of practices) and embody materiality including artefacts, people, organisms and things (Schatzki 2006: 1864). Thus, practices entwine people, technologies, spaces and artefacts; through embedded structures and material arrangements, they frame future action possibilities for individuals and the organization.

Practices persist (i.e. continue) and perpetuate (i.e. prevail) in organizations because they are carried forward within what Schatzki (2006: 1867) refers to as the practice memory of an organization. Organizational practice memory encompasses the structural elements of practices that exist even when those practices are not specifically being carried out. Further, organizational practice memory exists beyond the aggregate memories and understandings of any one individual (i.e. the collective nature of practice as being more than the sum of individual actions and actors). Practice memory is commonly captured in organizational documents such as procedural manuals, in the design of organizational infrastructure that enables practices to be performed, or in a company's lore and cultural history. Such memory perpetuates in tacit and explicit ways through the retelling of stories that are passed along by existing and new employees and through their everyday performances.

In this sense, practices are not simply actions or activities carried out by workers. Rather, practices are enacted, that is, workers engage in 'doings and sayings' (Schatzki 2002: 81) that bring together combinations of know-how, rules, purposes, personal investments and general understandings relevant to their job. In doing so, workers carry practices forward through these enactments; at the same time, they may vary those practices in some way. This is because, consciously or unconsciously, they carry with them particular understandings of similar practices from other contexts (e.g. previous jobs, prior experiences and/or knowledge). In enacting organizational practices, workers' understandings of those practices become enmeshed with previous understandings of similar practices from other contexts. To perform work, workers perpetuate the practice needed to achieve the practical and context-specific purposes of work.

Schatzki's theorization of practice shares conceptual similarities with structuration theory (Giddens 1979, 1984) and actor-network theory (Callon 1986; Law and Hassard 1999). Where we believe Schatzki provides a more textured understanding of organizations through his practice concepts is in (1) his foregrounding of social phenomena and (2) his treatment of time and space. For Schatzki (1996, 2002), practices and organizations are, in essence, innately social phenomena and examples of social life. Human activity can be structured, classified and abstracted but at its heart, it is the site of the social where practices are a 'nexus of doings and sayings [that are] spatially dispersed and temporally unfolding' (Schatzki 1996: 89). Thus, doings and sayings are linked in certain ways (i.e. according to the structural elements) that may generate causal connections that can be determined or may have unanticipated effects.

When practice actions unfold temporally, they can be observed during chronological time (e.g. certain activities or events that occur before or after others in an organization). However, Schatzki also conceptualizes the notion of 'teleological time' that continually justifies current actions as responses to the past, yet also motivates workers towards future ends: 'a joining of the teleological past, present and future' (Schatzki 2006: 1871). Teleological time, he argues, explains the rationale for why workers may choose to apply something they perceive as relevant (or not) from their prior experience in perpetuating or modifying a particular practice enactment. Having enacted a practice in a particular way, workers then, explicitly or implicitly, structure the ways they may choose to enact such practices in the future. This teleo-affective character that imbues a Schatzkian view of practice is why 'an organization *as it happens* is not simply the organization's happening' (Schatzki 2006: 1866, our italics). We next examine the importance of temporality from the perspective of various theorizations of change.

## *Organizing as Both Stable and Changing*

The notion that organizations can be recognized and enacted by multiple others with regularity, yet potentially be enacted differently and modified, challenges much of the conventional organizational change literature. In such literature (e.g. Armenakis and Bedeian 1999; Waddell et al. 2007), stability rather than change is maintained as the starting point and/or target state. Change is often described as an externally driven, staged, discrete and change agent-led phenomenon that represents an exception to that stability. For example, change, in the form of resistance (Ford et al. 2002), cultural attitudes (Alas and Vadi 2006) or prevailing ideology (Diefenbach 2007) needs to be 'managed' or 'eliminated' to revert to stable understandings of organization.

A growing number of researchers draw attention to the problematic nature of this deterministic and causal view of change that focuses on the sources and outcomes of change (e.g. Chia 1999; Marshak 2002; Sturdy and Grey 2003; Tsoukas and Chia 2002). For example, Chia (1999: 57) calls this synoptic approach to the study of

change limiting in that it fails to capture the 'distinguishing features of change – its fluidity, pervasiveness, open-endedness and indivisibility'. Tsoukas and Chia (2002) suggest that breaking down change into discrete or static stages takes away the very essence of its dynamic, emergent and unintended elements.

In contrast to deterministic and causal views of change, Tsoukas and Chia (2002) propose viewing change as a natural, ongoing process: an orientation towards 'organizing', rather than an explanation of the outcomes or effects on a stable entity called the 'organization'. Thus, this process is more about 'organizational becoming', an ongoing attempt to make sense of emergent processes that are constantly in flux (Tsoukas and Chia 2002: 570) where both stability and change mutually co-exist. The accomplishments must be stable enough for actions to proceed and outcomes to be achieved. But at the same time, they are recognized as temporary, changing in response to different contextual factors, the differing experiences of workers who enact them or other factors.

In theorizing the concept of organizational routines, Feldman and Pentland (2003, 2008; Feldman 2000) have similarly suggested that change and stability co-exist. Their focus on organizational routines is described here and related to our use of Schatzkian practice theory. Drawing upon Bourdieu's practice theory (Bourdieu 1977, 1990) and Giddens' structuration theory (Giddens 1979, 1984), Feldman and Pentland critique the conventional definition of organizational routines as 'repetitive, recognizable patterns of interdependent actions, carried out by multiple actors' (Feldman and Pentland 2003: 95). They favour routines theorized as more improvisational with both 'performative aspects [that are] specific actions taken by specific people at specific times and places' (Feldman and Pentland 2003: 101) and ostensive aspects that are 'subjective understandings of diverse participants … that allow participants to see different things and also to see the same thing in different ways' (Feldman and Pentland 2003: 101; Feldman and Pentland 2008: 303). Both performative and ostensive aspects are 'mutually necessary [but] changing one does not necessarily lead to a change in the other' (Feldman and Pentland 2003: 103, 115).

For Feldman and Pentland (2008), the juxtaposed term *routine dynamics* captures the apparent dilemma of how both stability and change can be achieved as a phenomenon from within the enactment of the routine itself. Our understanding of practices and Feldman and Pentland's theorizing of routines appears to share similar philosophies in conceptualizing change as actions that are provisional (i.e. temporary and able to be revised again in the future) although our units of analysis differ. Both terms (practice, routine) have commonplace everyday meanings. Despite Feldman and Pentland's desire to reposition routines more substantively, everyday language use reinforces their repetitive and procedural interpretation.

The notion of practice seems to us a richer account than routine, and to do more conceptual work, because practice includes a sense of ethics and ongoing stewardship that we do not perceive in current discussions of routines. Schatzki (1996) draws his philosophical inspiration from the writings of Wittgenstein (1968) and MacIntyre (1981). The ethics and stewardship of practice are imbued in MacIntyre's (1981) concept of the standards of excellence in practice (which can certainly encompass the rules of practice but are not limited to only rules) and in a theoretical

concept MacIntyre calls 'internal goods of practice' that can only be experienced through participation in practice (e.g. see discussion of MacIntyre's goods of practice by Antonacopoulou 2009). Similarly, Schatzki's (2002) concept of teleo-affective structures resonates with MacIntyrian virtues and the narrative unity of life (MacIntyre 1981) as well as with Wittgenstein's (1968: para 19) concept of language as a shared 'form of life' that contributes to Aristotelian human flourishing.

A practice-based perspective recognizes the historicity of past enactments or 'ways of living that have preceded [current practitioners]' (Kemmis 2007: 125). These past enactments prefigure and form the current standards for how that practice is understood and performed today and how those understandings and performances will continue to shape the dynamics of practice into the future. In essence, change has an additional contribution other than marking out difference from prior conditions: change also contributes to notions of learning. We discuss these notions of learning in the following section.

## *Learning and Change from 'Inside' Practice*

The domain of workplace learning theories continues to be contested in terms of what constitutes learning and what changes in behaviour or understandings can be counted as learning in organizations (Easterby-Smith et al. 1999; Elkjaer 2001; Solomon et al. 2006). In organizations, learning is considered to contribute beneficially to the development of competitive advantage (Moingeon and Edmondson 1996), knowledge (Gherardi 2006) and competence in people (Hager 2004; Smith 2005). How learning is implicated in change is usually discussed in terms of a progressive framework that recognizes change as development, a phenomenon that occurs over time. This understanding is evident in the stages of competence framework originally developed by Dreyfus and Dreyfus (1986) and constitutes the basis for numerous competency-based training and learning approaches (Mulcahy and James 2000; Vorhees 2001).

In enacting practices, there are many relations of difference where learning and change or learning as change is juxtaposed to open up possibilities. For Schatzki (2006: 1868), learning occurs through 'teaching and transmitting', that is, by individuals examining and questioning others about practice. This questioning can challenge how practice is generally performed (e.g. general safety principles) or how a particular practice is operationalized in an organization (e.g. safety practices performed in Company X). But this practice knowledge is not just replicated from partial communications of organizational practice memory. Rather, people bring with them prior experiences and persistent understandings of similar practices from other contexts that they see as potentially relevant. They 'acquire knowledge-in-action' (Gherardi 2000: 214) by interacting with others before, during and after performances that contribute to revised inferential understandings (Beckett 2004) about how practices could be performed in the future.

It is workers who enact performances that enable practices to persist and perpetuate – to be recognized by others as a particular form of practice (i.e. safety

practices rather than customer service practices). But within each enactment, workers constantly re-contextualize and re-form practice knowledge, thus contributing in small and large ways to changing understandings about what these practices are and how they should be enacted. Knowledge remains in motion (Nespor 1994), changing practices and altering organizational practice memory (e.g. how we now perform safety practices after we learned from the incident where two workers were injured). In such ways, practices affect what is learned, how it is learned and by whom, in dynamic ways. Next, we illustrate the dynamic character of practice by discussing findings from our research on safety practices with a utility company.

## Safety Practices and Safe Working

### *Methodology and Research Site*

Our research on IDPs explored the conditions under which organizational practices designed for work (and performed for the achievement of organizational goals) can also provide opportunities for the learning and development of individuals and the organization. Our practice orientation, grounded in Schatzki's practice theory as previously discussed, directed the focus of our research methods by combining observations of practice (practitioner *doings and sayings* observed and recorded as field notes), elicited stories (practitioner talk using semi-structured individual interviews and focus groups based on narrative inquiry methods) and extant stories and documentation (representations of *organizational practice memory*). All interviews were digitally recorded, professionally transcribed and reviewed by multiple researchers. We used inductive analysis to surface practice themes and then re-analyzed these themes and supporting data to highlight learning implications.

For *Utility*, a pseudonym for the organization we discuss here, we found a range of practices where learning emerged from the practice of work. For purposes of illustrating our approach, we focus mainly on safety practices, although we briefly raise the value of linking safety practices to other organizational practices. In our research at *Utility*, we conducted over 30 h of site observations of which 10 h focused on safety practice activities (e.g. safety days, toolbox talks, depot work preparations). We interviewed 28 workers across hierarchical levels and functions to ascertain workers' re-told experiences of how they enacted safety practices. We reviewed safety practice material arrangements such as safety policies and procedures, safety compliance forms, hazard and risk assessment forms and safety indicator reports, as well as annual reports and corporate plans. We built our understanding of the organizational context, its priorities, the cultural ways of working and the role of safety practices through reviewing the artefacts of practice and combining our understandings with the ways workers talked about experiencing and enacting safety in interviews and through our own researcher observations.

*Utility* is a state-owned public utility that performs as a network operator (linking to the national system for energy) and as a distributor of customer services. It supports over 800,000 customers and maintains a grid of 2,400 km over the

fringe suburbs of a state capital city as well as smaller towns in regional areas. The organization employs over 2,500 employees across three regions. Our research focused within one of these regions and researched the practices of a cross section of two operational units and three support units. Each unit performs distinct functions that must coordinate to provide integrated services to customers. These functions include construction and maintenance, project management, administration, depot support and customer relations.

## *Worker Doings, Sayings and Learning About Safety*

*Utility* operates a hazardous business where concern for human safety has been long embedded in its history and culture. Safety is a corporate value reflected in its mission and through operational priorities. It is a legal requirement with accountabilities for regular reporting as measurable performance indicators (e.g. lost time, injury frequency rate). At *Utility*, safety has a visual impact with notices posted across nearly every prominent surface. Safety practices include mandated work activities where workers are required to perform safety audits (SAs) or safety observations (SOs) and participate in safety day (SD) forums. Workers are required to understand safety policies and to fulfil safety compliance requirements by completing safety forms and documenting the findings from safety observations. During our fieldwork, workers talked, unsolicited, about safety at every interview as well as during informal breaks including lunch times. They also required us to wear safety vests and hard hats when walking through hazardous areas. At this organization, safety in its variety of manifestations is always visible – it is something people know about and do.

As hierarchically imposed and compliance-focused investigations of safety practices, SAs have been a long-term enacted work practice. In recent times, *Utility* significantly changed its safety practices. The catalyst for making changes originated from two interrelated features. First, in the context of comparative industry performance, *Utility* recognized that it was lagging behind. Second, not being at the forefront of industry, safety practices had translated into human costs – increased lost time injury rates and a number of serious accidents. To facilitate its move to a new safety approach, *Utility* engaged an external firm (we use the pseudonym *SafetyMax*) with a reputation for safety best practices to assist with initial training and implementation advice. Now, a few years into its implementation, the positive impact of the new approach is being acknowledged within the region; however, there is a belief that more can still be done:

> We've been on a safety journey for a couple of years, we had a couple of accidents and we needed to do something a bit different … need to improve our safety statistics … industry's miles ahead of us. So we went down a path, we brought in an external consultant … there has been an improvement … we're down [in lost time injuries and in accidents] to better than we've ever been, but we're still just ticking along (Brian, Regional Manager).

> There have been a lot of improvements but I would have thought that an organization with the profile of *Utility*, they'd have been a lot further along the journey (Shawn, Project Manager).

The new approach to safety did not completely replace existing safety practices. Rather, some existing safety practices such as SAs were retained while new practices such as SOs and SD forums were introduced. New and old safety practices became embedded together in the organization in a number of ways. First, there was a formal development programme where the contextual characteristics, interrelationships between new and existing practices and the structural and action elements of new practices were taught and transmitted to workers:

> [Safety] … started when *SafetyMax* came into the organization. We were trained to do safety observations and we'd go out and observe our teams and just go through what they're doing (Paul, Field Officer).

Second, workers learned about safety practices from organizational documents such as safety policies and hazard notices. This learning was reinforced in organizational rituals such as team meetings and toolbox talks and in organizational artefacts such as bulletin boards and daily emails. These documents, rituals and artefacts represent the organizational safety practice memory that exists beyond the collective memories and understandings of individual workers practising safety:

> Every day you get some sort of safety alert (Mitch, Technical Officer).
>
> Ninety percent of [the monthly] team brief is safety issues (Tony, Field Officer).
>
> I think I had a look at [a Safety Bulletin Board] yesterday … I looked at [an alert] on things that lock in the safety harnesses (Eddy, Environmental Coordinator).

The gradual enmeshing of existing and new safety practices and the cultural and operational embedding of this new safety approach are reflected in changing safety discourses within organizational documents. In the 2000–2001 Annual Report, safety was talked about in terms of the 'Occupational Health and Safety plan' and 'safety audits'. The representation of safety was expressed in outcomes such as 'the plan' and 'the audit'. In the 2005–2006 Annual Report, the awareness of safety risks raised the need for more proactive action: 'We cannot continue to learn about safety by having accidents'. Existing safety practices were understood as important but not yet sufficient.

In the following year, there was a shift in *Utility*'s organizational safety discourse. Since 2007, while safety 'audits' remained for legislative compliance, they have been replaced by new doings and sayings as the predominant tool for safety culture development. A new discourse and practice of 'observations' has emerged, signalling a shift to processes needed to become a safer organization. Explicit references are now made to ongoing learning. SAs have not disappeared; rather, there is a gradual enmeshing of existing and new practices reflected in the commitment 'to build on past safety practices'. Evident in the 2007–2008 Annual Report is a commitment to 'continuing to implement the safety observation program'. Now, safety is understood as a cultural value that is embedded in the practices of 'safety observations [and] depot safety days'. The ongoing shifts in discourses and practices open up new future possibilities at *Utility* – safety is always 'becoming' (Schatzki 2002: 237).

Over a 4-year period, SOs have become a pivotal practice in the organization's new approach to safety. SOs are one way workers learn about safety together.

Through practice feedback and interactions, workers are experiencing how their own practices impact the practices and learning of others at work:

> We've got some young fellas with not a lot of experience… I can go out and do an observation and I can see where somebody might be performing a task where I think they could do it … a safer way (Peter, Field Officer).

> We couldn't get [Jim] to put his sleeves down [while out in the sun, then someone said] 'You're dealing with apprentices a lot of the time … don't you think it'd be good if you could set the example [so] they won't have melanomas like you've got if they have their sleeves rolled down?' You could see the brain tick and he thought about it, and the next minute he rolled his sleeve down (Robert, Manager).

Workers continually look to elicit meaning and to make sense from their understandings of how safety observation practices and material arrangements fit together to deliver the purposes of work. They learn to co-construct new meanings and acquire knowledge-in-action:

> Everybody has got a slightly different style … I walk on site … talk to the guys … tell them what I'm there for … go through it and at the end … tell them what their … positives were and then perhaps what their learnings would be. They'd never see me write down on [the SO form] … I think we've managed to convince them that we're genuinely interested in their welfare … two staff had commented to me: 'we really like you coming onsite … because we are so immersed in what we do, we don't necessarily get to stand back and have a look at our overall safety'. [I] think the attitudes have changed (Nigel, Engineering Manager).

## *Learning Beyond Safety Practices*

Our previous section provided examples of worker doings, sayings and material arrangements that contributed to various understandings and enactments of safety practices at *Utility*. The enmeshing of practice elements surfaces pressures for stability and change that vary by worker, context or other factors. First, the characteristic of *stability* helps to perpetuate a practice. Similar to SAs introduced earlier at *Utility*, SOs have recognizable processes, rules, structure and materialities that other workers, who may not have ever performed a safety observation before, can take up and learn (with or without the training support provided by *Utility*). Workers can recognize a safety observation when it is being performed, as it may be similar to others that were performed in the past: it has a 'family resemblance' (Wittgenstein 1968: para 67). Second, the characteristic of *change* modifies the practice according to who carries out the practice (e.g. Nigel: 'everybody has got a slightly different style'), how the practice is experienced (Robert recounting another person's persuasive communication style to convince Jim to comply by rolling down his sleeves), material information (e.g. Eddy's unanticipated learning from the bulletin board about safety harness locks) or industry context (e.g. Shawn's perception that *Utility* should have been further ahead on safety, based on prior or comparative experience).

Inherent in the notion of a practice is the engagement of those involved 'inside' the practice. Learning about a safety observation is an interactive phenomenon, affecting, for example, both Peter as the instigator of the safety observation and the

workers being observed for safety compliance. Here, revised understandings about safety observations emerge from interactions and enactments, whether the worker is doing, experiencing or observing the process. As our data illustrates, learning is implicated with change through various practice enactments that continually influence workers' performances.

Our empirical data also surfaced an additional aspect of Schatzkian practice theory that given the scope and purpose of this chapter, we can sketch only briefly. Organizations use a portfolio of practices to achieve their organizational purpose and outcomes. *Utility* as an organization does not just consist of safety practices; it includes many other organizational practices to manage work and to manage people, for example, the work of construction, maintenance, customer service, financial management and performance management. Our interviews highlighted how workers enact safety practices using knowledge-in-action for purposes that extend to understanding other practices, such as strengthening cross-functional relationships:

> I actually think [SOs] are an opportunity to create relationships with your staff. I think also the culture has changed … I think that was a learning from how we approached it and how the staff have approached it (Nigel, Engineering Manager).

> I've found [SOs] really good… the guys respond to it, the guys in the field, if you were doing an audit on them, they'd be like 'Oh god, not another audit', but you walk up and they go 'Are you doing a safety obs today?' and you'll be going 'I wasn't going to' and they go 'Well can I tell you something anyway?' and they'll actually tell you things (Dorian, Engineer).

Our data suggests that there is a growing awareness at *Utility* that safety is not just an accountability for those who perform SOs; such experiences encompass a broader notion of what it means to be a safe worker at *Utility*: a Schatzkian notion of 'some way of being' (Schatzki 2006: 1871). This developing sense of identity enables workers to connect to, and interrelate, various practices important to the organization, for example, the ways a project designer verifies how his own job for improving project design and management practices is being experienced in the field or how an environmental coordinator aims to engage the organization in becoming more supportive of new environmental practices:

> These days I'm supposed to do safety observations…whether I do them correctly or not for all the right reasons, it gives me an excuse to go and interact with people in the field … I think it's important … it's something we lose focus on … that's the problem with project managers often becoming process managers … they look too much at figures and reporting, rather than *actual jobs* and *what's happening on jobs* and who's doing jobs and *how they're doing it* (Sam, Project Designer, emphasis by participant).

> [I also do SOs] … You make observations and recommendations basically [if opportunity arises] I include [environmental issues even though that is not a requirement of the observation]… [my goal as Environmental Coordinator is] to try and make environment up there with safety to make them the same sort of thing … we're starting to do that. We're tacking onto the back of the safety days … we're borrowing a bit of the safety day's time to [discuss] environmental issues … I've had my eye on a few of the [Safety] bulletin boards around the place as well to put some [environment] things up (Eddy, Environmental Coordinator).

The emerging value of safety observations as operationalized by this organization is seen in the open provision of another practitioner's perspective, one that is not

necessarily embedded in what can often be regarded as the 'tunnel vision' of daily practice. The value of the information picked up through conversations and workers' enactments of safety observation practices typically exceeds the formal requirements that these practices require (i.e. completing the forms for compliance reasons). It provides for new learning and knowledge-in-action that facilitate the persistence and perpetuation of target practices (safety) while also enabling other work practices (in this case, project design and management practices and environmental practices) to emerge and change.

## Conclusion

In this chapter, we have unpacked the apparent paradox of organizational work that is performed repeatedly with regularity, yet is altered to accommodate changing requirements. Using a Schatzkian practice perspective, we have argued how doings, sayings and material arrangements are structured in ways that enable the practical matters of everyday organizational life to be accomplished. When workers perpetuate practices, they signal the continuing relevance of their prior understandings of practice. When workers adapt and vary practices for local circumstances or from interacting with others, they transform their performances into enactments that suit the practicalities of everyday work life. In such ways, workers open up learning spaces to consider alternative future possibilities for action that may improve or extend what they now call their current practice.

We believe our conceptual linkage between Schatzkian practice concepts and more continuous notions of change contribute to more explicitly linking practice, change and learning in practice-based research. Further, our approach highlights the nature of workplace learning as interactionally developed and emerging as organizations happen. In summary, rather than adopting a conventional educational conceptualization of learning, our Schatzkian usage of practice theory has provided a useful way to research and explain the fluid and continuous nature of learning and its dynamic relationship to organizational change.

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# Chapter 16
# Collective Learning Practice

**Paul Hager and Mary C. Johnsson**

## Introduction

The social and collective character of practice contrasts sharply with the dominant tendency in learning research literature to focus on the learning of individuals. In researching how learning and practice are interrelated, we suggest that learning by individuals, who are often situated in social contexts within organizations and workplaces, is only one side of learning. This chapter seeks to address the relatively neglected topic of collective learning as a different type of phenomenon. It proposes a theory of collective learning that views it as a holistic relational complex that is irreducible to the sum of its parts, whilst drawing on specifiable and non-specifiable aspects only obtained through engagement in practice. This challenges common assumptions about the character of collective learning and its influencing conditions. These claims are supported by our empirical research studying groups in three diverse vocational settings.

We prefer the term 'collective learning' rather than the more commonly used 'group learning'. We do not deny the value of 'group' as a category label, but our theorization of collective learning is based centrally on understandings of relations and interactions that emerge among practitioners, rather than the prevalent focus on the characteristics and properties of groups of which practitioners are members (e.g. functional teams, project teams, communities of practice). Thus, we recognize in the 'collective' label a complex patterning of relational, interactional and situational effects that conditions this form of learning, one that goes beyond the limitations of analyzing generalized or structural factors of groups as entities.

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Our use of the term ‘collective learning’ emphasizes the core idea that the group as a whole, the collective, learns, with collective learning being something other than the sum of learning by the respective individuals. Our usage places the analytical attention on the ways that knowledge, processes and activities are not only *shared* (as in common outcomes or shared understandings) but also *distributed* in organized collective ways (Orlikowski 2002). We strongly reject other connotations that are sometimes carried by the term ‘collective’, that there is a sameness or uniformity about the members of the collective or that the collective acts mechanically in ways prescribed from above. Typically from our experience of collective learning, there is diversity in the kinds of knowledges, experiences, understandings, habits and skills that individual members bring to the collective.

Our understandings of collective learning centre on three principles that can be stated at the outset in order to frame the subsequent discussion. First, we deploy the three principles to highlight the limitations of received theories of group learning. Next, the significance of these principles will be established by discussing findings from three empirical case studies. Finally, the principles are discussed as influencing conditions for theorizing collective learning. The three principles are as follows:

- *Holism* (Principle 1) – Collective learning practice is not about a focus on individual learning, then summing up or aligning such individual knowledge for common purposes. Rather, it focuses on how groups orchestrate forms of sensemaking that remain holistic and irreducible in character.
- *Indeterminacy* (Principle 2) – Collective learning practice goes beyond participating in a practice. It requires committed engagement that is configured by situated and temporal circumstances that are not necessarily causally determined. Such engagement is always social and socially constructed; however, these are necessary but not sufficient conditions for collective learning practice.
- *Emergence* (Principle 3) – Collective learning practice involves relational dynamics that emerge in complex and unanticipated ways that cannot be normatively prescribed. At best, their conditions may be identified or partially facilitated.

We next summarize our understandings of existing accounts of collective learning and discuss our conceptual connections with and points of departure from these literatures (retaining the term ‘group learning’ where other authors have used it).

## Limitations of Previous Accounts of Collective Learning

The performance of work requires the collective efforts of multiple individuals that, in various ways, contribute to desired outcomes. In organizations, these outcomes may be organizational products, services or outputs that are tangible or intangible and that are considered instrumental to that organization’s sustainability as an ongoing enterprise. This particular kind of learning, often called group learning or team learning (Kasl et al. 1997), is valued for contributing to work performance (Katzenbach and Smith 2001; van Vijfeijken et al. 2002), enterprise competitive

advantage and sustainability (Moingeon and Edmondson 1996), or community benefits such as social action (Kilgore 1999) or social capital (Kilpatrick et al. 1999). It can occur at higher levels of aggregation, for example, learning as an organizational entity (Argote et al. 2001; Dechant et al. 1993; Sessa and London 2008) or inter-organizationally through networked learning (Knight 2002).

Researcher understandings of group learning have been premised on what is group learning (particularly how to represent the phenomenon) and how groups learn (processes and conditions through which this form of learning occurs). We believe that, in striving to adequately represent this phenomenon, researchers have tended to objectify, isolate, simplify and categorize through taxonomic approaches that also influence the ways they theorize underlying processes and conditions. Much of the group learning literature relies on a worldview that atomistic objects or entities have primacy. Objects are the core building blocks from which other derivative concepts can be created; further, they are separate from other objects and from their environments. According to this worldview as it affects learning, it is human objects who learn and human objects who must utilize material and non-material means to create the outcomes that deliver performance, productivity and long-term sustainability.

The simplicity of a level- and category-based taxonomy has been used to argue how individual learning (humans as objects who learn) generates group learning (groups of humans as objects who learn) as an intermediate, higher-level phenomenon with organizational learning (specific groups of groups as objects who learn) as an enterprise-level phenomenon. This level is used to denote the extent of aggregation – individual (none), group (simple combination), organization (unique combination of combinations) – whereas categorization denotes a relation of membership (e.g. depersonalizing Jane, Sue, Mark and Bob as the collective 'marketing group'), reinforcing a prevalent Weberian (1964) organizing principle by specializing similar labour resources.

As Kim (1993: 37, 43, italics in original) suggests, since '*individuals' heads are where the vast majority of an organization's knowledge (both know-how and know-why) lies* … individual learning advances organizational learning [through a process of transferring and aligning shared mental models, whereas] a group can … be viewed as a *collective individual* [or] groups themselves … can be treated as if they were "extended individuals"'. Therefore, one implication of this taxonomic approach is to ignore the configuration and dynamics of the group as its own phenomenon in favour of what Garavan and McCarthy (2008: 461) depict in their typology as 'individual learning within the collective'. Here, the individual-based emphasis focuses on diffusing knowledge and skills (Tompkins 1995), converting explicit and tacit forms of knowledge (Nonaka and Takeuchi 1995; Mittendorff et al. 2006) or reconciling conflicts ('boundary crossing') across multiple activity systems (Tuomi-Gröhn and Engeström 2003) as ways to move towards the collective.

Alternatively, those who research groups specifically (e.g. Barrick et al. 1998; Katzenbach and Smith 2001; van Vijfeijken et al. 2002) have focused on the correlation between structural characteristics (e.g. size, composition, team tenure), task characteristics (e.g. task diversity, task interdependence) or psychological traits

(e.g. member personality) with group outcomes (usually group performance or productivity), as if normative relations can be prescribed independent of individual actions by group members or the contextual circumstances governing their collective choices for actions (Cohen and Bailey 1997 being a notable exception). These limitations have been pointed out by situated and sociocultural learning theorists (e.g. Brown et al. 1989; Lave and Wenger 1991; Rainbird et al. 2004) who argue that local, social and experiential factors influence groups in their learning beyond their structural configurations or objectified representations.

However, it is not only a matter of social learning from and with others. de Laat and Simons (2002) suggest that collective processes that result in collective outcomes generate a different learning dynamic that is not explainable by analyzing underlying components or isolated characteristics. (This is the basis of our *Principle 1*, *holism*.) Often, linear conceptions of time tend to oversimplify the dynamics of group learning by characterizing behaviour as progressively learned (e.g. the stages of group development as discussed by Tuckman and Jensen 1977) or causatively determined (see critique by Johnsson and Boud 2010). We believe more nuanced conceptions of temporality are needed to characterize the indeterminate nature of learning generally, and for the type of learning where knowledge, processes and actions are organized, distributed and acted upon by multiple others. (Our *Principle 2*, *indeterminacy*, counters such assumptions of causality.)

We join others (Mead 1932/1959; Orlikowski and Yates 2002; Shotter and Tsoukas 2007; Schatzki 2009) who prefer alternative perspectives of temporal structuring and axiological approaches to engagement as more helpful in understanding the dynamics of organizational practice. For example, Mead's (1932/1959) 'philosophy of the present' and Schatzki's (2009) notion of 'timespace' collapse past and future time into an emergent view of the present that remains the locus of reality. When multiple individuals collectively enact practice to perform work, they integrate past experiences as relevant (or not) into current actions whilst simultaneously signalling teleological future actions that could be taken. Such engagement may certainly involve participating to generate shared mental models or to ensure closer bonds of community and identity. Importantly, however, engagement requires axiological commitments 'of the will, rather than of the intellect' (Shotter and Tsoukas 2007: 8) since agentic individuals can always 'choose to do otherwise' (Giddens, cited in Orlikowski and Yates 2002: 688). In the public affairs of work, enacting practice with others means human actors must live with the irrevocable consequences of various collective acts. Such acts at each instantiation may be provisional in that they can be modified again by subsequent actions. However, each instantiation irrevocably alters and re-weaves the conditions for interdependent relations and situational circumstances that surround and encompass actors as implicated participants.

This complex patterning of effects is relational-responsive (Cunliffe 2008; Kyriakidou and Özbilgin 2006) in character. Practice-based learning moves forward as a consequence of cues, signals, responses, choices for actions and acts that are informed by current and prior practice understandings, but such learning cannot be prescribed in advance. (This is the basis of our *Principle 3, emergence*.) It is akin to a process of distributed sensemaking (Maitlis 2005) that unfolds holistically; it is

partially able to be orchestrated but not fully controllable. This mode of sensemaking requires not only individual inferences about what is significant, urgent and important in a particular contextual circumstance, which requires personal responsibility and commitment. Critically, it also requires collective and collectively generated inferences that are deemed salient (Kemmis 2005). Once practices are enacted, these ongoing accomplishments become embedded in current practice understandings that affect anticipated future actions. How groups learn together is therefore more complex, emergent, relational and dynamic than simplified representations of collective learning would suggest. We next illustrate through empirical research how collective learning conditions and effects might be understood in workplaces.

## How Musicians, Chefs and Corrections Staff Learn Practice Collectively

### *Research Scope and Approach*

Over a 2-year period, we researched the learning practices of groups in three different vocational settings as part of an Australian Research Council-funded research project investigating the various manifestations of informal workplace learning. These vocational groups performed paid work that required individuals to apply their professional knowledge (whether acquired from prior education, prior experience or on-the-job) in work contexts with others to generate shared outcomes. Whilst individual performances can be differentiated and observed, the research issues dealt with in this chapter concern the conditions and circumstances through which practitioners learn how to perform and adapt work with others, how they experience this phenomenon and the literal or symbolic means (through (inter) actions, talk and judgement-based inferences) from which they collectively determine how to proceed.

In the qualitative research tradition (Silverman 2009), our approach used researcher observations of groups 'in action' performing daily work in their natural settings. These group observations were documented through field notes or audio recorded where practical and supported by researcher review of organizational documents and materials used by the groups. As soon as practicable after the group observations, we followed up through individual and group interviews to obtain participant views on how the unfolding activities and events structured their understandings or experiences of learning. In creating additional collective opportunities for reflection, we paid particular attention in these forums to how the process of collective sensemaking unfolded and what patterns of shared understandings were constructed – implicating us as both researchers and learners. Table 16.1 summarizes the scope of our research with these groups and organizations. Across these three exemplars, we logged over 70 h covering a total of 40 discrete instances observing or interacting with approximately 150 individuals arranged in various group configurations (note: this excludes our time spent on documentary analysis).

**Table 16.1** Research scope

| | Case exemplar 1 | Case exemplar 2 | Case exemplar 3 |
|---|---|---|---|
| Contextual organizational scope | Professional and developing musicians performing concerts together as part of an orchestral development programme | Professional and apprentice chefs working together in commercial cookery to deliver à la carte dining service for customers | State government programme to rehabilitate drug offenders using a new model of therapeutic jurisprudence[1] in corrective services |
| Observed group interactions (size)[2] | • Group practice in rehearsal (~50)<br>• Group in concert performance (6) | • Restaurant lunch service (12)<br>• Function preparation (3 groups of 6)<br>• Café lunch service (4) | • Morning briefing (10)<br>• Community meeting (~40)<br>• Programmes integration meeting (8)<br>• Barbecue lunch (~40) |
| Reflections on learning[3] (size)[2] | • Small group interview (2)<br>• Individual interviews (1) | • Focus group interview (4)<br>• Individual interviews (1) | • Small group interview (2)<br>• Individual interviews (1) |
| Document reviews | • Music scores; concert programmes<br>• Programme design history and participant guidelines<br>• Past participant survey feedback | • Recipes and menus<br>• Organizational profiles<br>• Trends and statistics on the Australian commercial cookery industry | • Weekly schedule of staff programmes with offenders<br>• Case procedures operating manual (draft)<br>• Minutes of inter-agency activities and meetings |

*Notes*

[1]'Therapeutic jurisprudence' refers to a theory based on the assumption that the law should be at least neutral if not positive in its impact on individuals – see Wexler and Winick (1991)

[2]Size denotes number of research participants in the group; in most cases, two researchers were additionally present.

[3]For exemplar 3, additional reflections on learning were only obtained from corrective services professional staff and not from the offenders due to the conditions of our ethics approval. The group observation of the community meeting did include staff interactions with offenders with prior consent.

## Learning Relationally What It Means to Work Collectively

At first glance, performing symphonic music, producing restaurant meals and rehabilitating drug offenders seem vastly different examples of work that depend upon distinct knowledge disciplines, learning processes and practice experiences. Yet when examining enactments of practice as collective processes that generate holistic patterns, we believe these case exemplars share commonalities that provide useful insights for theorizations of collective learning.

In practice exemplar 1, we observed an orchestra consisting of experienced and novice musicians rehearsing a concert programme that they were due to perform later that evening. The rehearsal consisted of interrelated combinations of (1) actions (sound and body movements) when the orchestra played certain symphonic passages or musicians made markings on their scores, and (2) talk when the conductor provided interpretive guidance or the musicians chatted within their instrument sections during short breaks. There was analogous collective activity in the cookery context (practice exemplar 2) where a group of chefs (including one apprentice) was servicing *à la carte* lunch orders at a restaurant. Chefs typically prepare a separate item on the same order and must coordinate workflow by using short verbal statements (e.g. a warning by the sous-chef in charge: 'two minutes to the blue eye [fish being ready]!'), closely watching where other chefs are relative to the progress of their own work and performing a series of parallel actions.

In practice exemplar 3, we observed the learning of interdisciplinary collective work by staff that was atypical from process hand-overs or disciplinary-based informed consultation. Rather, the new model of offender rehabilitation being trialled at the centre was based on staff learning how to integrate individual behavioural change (offender self-initiated therapies) with organizational change (staff and offenders collectively modelling desired behaviours). Staff had to step out of their taken-for-granted 'usual' individual roles to experiment with new roles (e.g. custodial officers in 'helping' roles rather than traditional 'control/security' roles or custodial and parole staff co-facilitating induction programmes). Due to lack of established operating procedures governing this approach to rehabilitation, staff had to redesign processes 'on-the-fly' (e.g. changing the existing urine testing procedures after offenders identified loopholes in the system) or to reinvent new ones (e.g. a leave pass system for weekend access to the community, where previously the norm was total incarceration). Such experiences at the centre changed how the staff as a collective unit understood the needs for collaboration as extending beyond disciplinary coordination.

Table 16.2 summarizes how we interpreted the patterns of relational understandings generated from practitioners working together across these three exemplars. In these kinds of collective practice, we were surprised at the extent of holistic adaptation that needed to be 'sensed' as well as the practitioner awareness of interdependence with others that was always anchored in the pragmatic considerations of how to proceed next. Space permits us to expand only on practice exemplar 2 in more detailed analysis, although further details on learning implications for case exemplar 1 are discussed in Johnsson and Hager (2008) and Hager and Johnsson (2009a), and for case exemplar 3 in Hager and Johnsson (2009b).

In Fig. 16.1, we illustrate a small extract from practice exemplar 2 where we observed three chefs working together to deliver a particular table order – two orders of a main course (lamb shoulder with baby vegetables and pea purée) and one entrée of the green bean salad with aged balsamic. In this exemplar, the apprentice chef (AC) is responsible for all cold orders, the sous-chef (SC) for all grill orders and to direct the completion of orders and the executive chef (EC) oversees the kitchen flow and quality and helps out tactically where necessary.

**Table 16.2** Learning through relational understandings across three practice exemplars

| Practice exemplar | Contextualized collective processes | Examples of relational understandings in practice (researcher interpretations with practitioner comments) |
|---|---|---|
| Learning orchestral musician work | Rehearsing Tchaikovsky's fourth symphony in the City Recital Hall:<br>• Conductor guidance on style<br>• Watching others, especially mentors<br>• Musicians marking musical scores<br>• Musician talk during breaks | '*Embodied adaptation: becoming a whole musician*'<br>• Coordinated and proficient sensing<br>– Musicians imitating similar body language movements across instrument sections during performance<br>– 'Watching out of the corner of your eye' the movements of your neighbour, section principal and conductor<br>• Unity of sound and interpretation<br>– 'Everyone's heightened, thinking… we've got to get it right … do it up on the C-string on this part of the bow … so the sound is more unified'<br>• Responsive adaptation<br>– 'Our [brass] sound depends on the size of the string section. For this size orchestra here, we're probably too loud, let's tone it back a bit' |
| Learning commercial cookery work | Preparing a series of customer à *la carte* lunch orders:<br>• Performing own work<br>• Watching others directly or peripherally<br>• Coordinating workflow movements and timing | '*Discovering together the ways it works for you*'<br>• Embodied sensing<br>– Executive chef constantly surveying the kitchen as a pattern of dynamic flows: 'I'm always watching what other people do. It makes everyone responsive and ready at any one moment – it's about looking at the whole picture and where everybody is in that picture'<br>• Multi-interaction adaptation<br>– 'The whole idea [with the apprenticeship] is to work with as many chefs as you can, see how many different ways there are to do things, and then just pick pieces that work for you' |

| | | |
|---|---|---|
| Learning drug rehabilitation work | Designing new rehabilitative therapies:<br>• Custodial officers making milkshakes as rewards for good offender behaviour<br>• Custodial and parole staff co-facilitating offender induction programmes<br>• Weekly programmes integration meeting to discuss holistic treatment approaches<br>• Fixing the loopholes in urine testing procedures<br>• Designing a new weekend leave pass system | '*Stepping out to work in the overlaps*'<br>• Acknowledging shared humanity and interdependencies<br>• Staff and offenders interacting informally during a barbecue lunch (atypical in traditional jails)<br>• '[It's] the common interest, someone might have a little bit more experience with mental health [or] homelessness and developmental disability… So coming together, we're having a lot of input with information and learning'<br>• The vulnerability of going beyond disciplinary roles<br>• 'It was hard for some officers to make an inmate a milkshake … because … it comes down to this power thing [but] we explained to them that traditionally [custody has] always been the punisher, now we're trying to change that'<br>• Practical and creative design 'on the fly'<br>• 'We've had to make up stuff as we go along … like the leave pass system is outside [the rules] that is normal for a minimum security works release centre … we had to … create … basic common sense rules … we learned as we went along' |

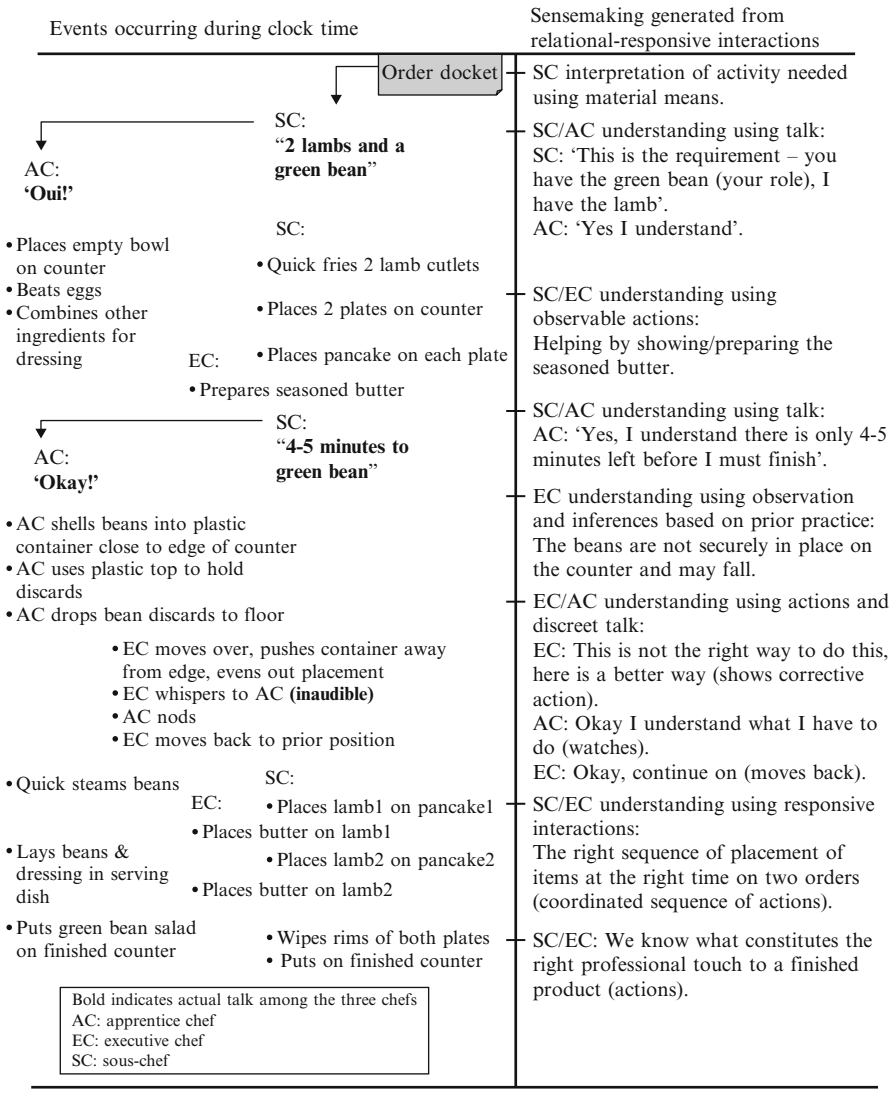


**Fig. 16.1** Relational understandings occurring during practice exemplar 2

As noted in the second column of Fig. 16.1, there are various forms of sensemaking used by the participants to signal collective understandings. Relationality is the key feature of these forms of sensemaking:

- Talk is a common relational-responsive mechanism, that is, a question conventionally expects an answer. In the two examples noted in bold text in column 1 of Fig. 16.1, the abbreviated talk confirms work understandings between the sous-chef and apprentice chef that they are 'practising in sync' and are coordinating

their relative efforts to reach a collective outcome at an imminent future time. But also embedded in what is *not* said, but clearly understood by the apprentice chef, are relations of *power* ('in our practice and kitchen, the sous-chef directs the orders') and *hierarchy* ('but if the executive chef overrides him, I know whose orders to follow') and *prior practice understandings* ('I know how to prepare the green bean salad because we trained on that last week').

- Observable interdependent actions that involve coordinated collective judgements. For example, in 'plating up' the finished main dishes (e.g. presenting the lamb on top of a pancake), the sous-chef and executive chef acknowledge a relational understanding between them by adjusting the timing of their physical actions relative to each other without the need for talk. The two chefs build upon prior practice understandings, chefing protocols and past repetition to perform in the present.
- However, these chefs might also vary their actions if they then make different judgements that dynamically change their contextual circumstances or expected responsive actions. So, for example, if the executive chef had noted that the apprentice chef was behind in her green bean salad preparations and, *in that moment*, chosen to assist her to complete her task to assure coordinated completion of both the lamb and green bean items, the sous-chef would have inferred a different anticipated action and adjusted his own actions to complete the plating task by himself. Thus, certain responses trigger others to occur that cannot always be predicted in advance. The momentum of the kitchen dynamic depends upon all three chefs sensing how the practice is flowing at each enactment and signalling that they are all connected in a shared situation that dynamically reconfigures through each responsive interaction.

As this small extract illustrates, talk, actions and observations feed into moment-by-moment inferential judgement-making about 'how to go on'. As circumstances alter (e.g. changing clientele, novel menu items, unexpected accidents in the kitchen), new kinds of workplace interactions emerge, requiring workers to continually refine and develop their judgement-making capacities. As Beckett and Hager (2002) and Hager and Halliday (2006) note, this constitutes a significant, yet often unacknowledged kind of ongoing workplace learning.

In the interview that followed this particular practice observation, the executive chef clarifies how important the process of embodied sensing is to him and how to interpret the actions we observed during the green bean episode when the apprentice chef dropped her bean discards:

> Me casting my eyes over so constantly is one of my biggest tools to know what people do … without actually going up to them and saying: 'What are you doing?'. So I can see someone: 'You've been on the beans for 45 minutes: you need to pull your finger out'. I may not be physically talking to them, but I can actually see how they're going about their work, what they're up to, the state of their bench and just simplistic things like that. And I'll go up to them and say: 'You need to keep on top of your bench, you need to do this, and you need to do that' but subtly not so it's broadcast in front of all the other chefs.
>
> It's discreet – I come up to them and say, just keep your eye on the bench, just like the broad beans with [the apprentice chef] … rather than saying [loudly]: 'Hey, go and grab a few bowls!' … it's constructive feedback [and] it doesn't make them feel uncomfortable in front of a group of senior members of the kitchen.

This same chef went on to echo the views of other experienced chefs we subsequently interviewed that becoming a professional chef was more a discovery process to find *the ways that it can work for you best*. Mechanistically imitating expert others does not develop a professional chef who can master both the explicit and tacit aspects of practice. Paradoxically, working collectively is needed to produce an outcome that no one individual can produce solely in commercial cookery, yet the experience of working collectively also generates the diverse options from which choices about preferred individual working styles can be made. In essence, both (1) individual and collective and (2) sameness and difference mutually constitute each other.

Our three exemplars illustrate that collective practice is experienced and learned as a flow of mutually constituting transactions (Dewey and Bentley 1949) that are meaningful in both practical and social understanding ways. First, it is practical because responses take place, anchored by the specific contextual circumstances of work that demands judgements to be taken regarding the next step. Second, it is also meaningful as the means for social understandings because actors, circumstances, rules and prior understandings form changing patterns of interpretive effects that get untangled, rewoven or confirmed through subsequent configurations of human cues and responses. Practice provides the learning forum for generating interactionally based collective competence (Boreham 2004) for the 'here and now'. Working together builds upon practice understandings that can be repetitive or habituated, but under certain conditions that are not always specifiable, offer the possibility for novel creative actions to emerge.

## Towards a Relational Conceptualization of Collective Learning Practice

Conventional learning literature often highlights objects that pervade our lifeworld and our places of work in visible material ways. When we research learning, it is simpler to focus on *what* people learn (knowledge), *who* the people are (learners), *where* learning occurs (place and context) and *when* learning occurs (clock time) in order to determine *what* results (outcomes). Hidden, or at least less visible, is *how* learning occurs, particularly how meaning and meaningfulness are generated in the practice and performance of work. The significance of cross-dialogue, interactions, symbolic inferences, attributed motivations, body language and other forms of sensemaking that construct the ways people learn together are often undervalued and under-analyzed in learning research.

Our discussion of findings from researching groups of musicians, chefs and corrections staff suggests that collective learning practice has an orientation that is more relational and emergent than conventional learning literature has previously embraced. The three principles that we asserted in the Introduction are illustrated by our three exemplars to differing degrees (Table 16.3).

**Table 16.3** Exemplar-principle fit

| | Principle 1: holism | Principle 2: indeterminacy | Principle 3: emergence |
|---|---|---|---|
| Exemplar 1: Collectively performing a symphony | *Strong*<br>A symphony is appreciated and sensed as a whole, even when interdependent parts can be differentiated | *Strong*<br>Musical scores guide recognizable technical interpretation, but each performance must be adapted to numerous conductor, composer style, orchestral, venue and local conditions | *Medium*<br>Learning during performance can also be conditioned by emergent audience responses, which enhances understandings of orchestral musician practice beyond becoming proficient orchestral players |
| Exemplar 2: Collectively preparing a customer meal | *Strong*<br>For a dining experience to be holistically appreciated, interdependent parts, preparation and service must fit efficiently *and* creatively together | *Medium*<br>Consistency and uniformity of output are indicators of quality yet must be adjusted for temporal events and the kitchen 'in the moment' | *Strong*<br>What characterizes commercial chefing practice cannot be fully specifiable through individual attributes or kitchen collaborative capacities. It encompasses many tacit elements that only creatively emerge under testing conditions |
| Exemplar 3: Collectively rehabilitating drug offenders | *Strong*<br>Strands of rehabilitation work and motivation to change must interlock and integrate to generate successful offender rehabilitation | *Medium*<br>Operating procedures are only guidelines that are adapted by judgements made for specific human behaviour or situational circumstances | *Strong*<br>Pragmatically remaking an interdisciplinary practice requires applying collective learning to experiment legally, ethically and creatively in emergent ways |

As illustrated by all three exemplars, learning that utilizes awareness of holistic effects is particularly meaningful for practitioners. For example, in practice exemplar 1, we observed the brass players dynamically adjusted their sound volume relative to the orchestra's strings section and for the size of the playing venue rather than accurately and proficiently playing what is written in the composer score or what is the norm for that instrument. When attention is directed to patterns formed in practice, different kinds of collective understandings develop among practitioners that remain part of a holistic sensory experience.

This chapter has argued for the vital importance of relational notions for understanding practice, learning and the ways practitioners learn collectively. It seeks to

characterize collective learning practice as a holistic relational complex that moves forward as changing patterns of human connections in ways that are indeterminate but not necessarily random. It recognizes how practice is rhizomic (Chia 1999) in that new understandings can arise from certain situational conditions that are structured from prior understandings, but such conditions are not always specifiable and may result in creative variations. The importance of adopting a relational ontology in organizational research is increasingly recognized because it overcomes several weaknesses of earlier theorizing. Prominent weaknesses have included the separatist tendencies in representational philosophies and dualisms (Simpson 2009), viewing time and space as discrete (Emirbayer 2002; Schatzki 2009) and the well-known tensions between individual and social agency (Billett 2008; Gergen 2009). Methodologically, constructing relational research remains a practical challenge, and we need more advances in relational research methods such as those previously discussed by Bradbury and Lichtenstein (2000) and Heron and Reason (2006).

## Concluding Observations

We note two additional observations shaped by our collective learning research that relate to this book's positioning of practice in the world of work. The first concerns the nature of engagement that is only obtainable from *within* practice. To reiterate, engagement crucially goes beyond participation to include judgement; it requires an embodied, committed form of relational responsivity that implicates others who must be similarly committed. Navigating using only a practice map is insufficient. Metaphorically, one must engage with the unknown territory of practice, embracing a 'withness' experience that only comes from walking the streets of a new city and discovering the landmarks using all the human senses (Shotter 2006; Shotter and Tsoukas 2007: 21).

From a collective learning perspective, engagement requires practitioners to acknowledge the experience as longitudinal in consequence and creatively novel: it involves known and unknown others upon which practitioners are vulnerably dependent (MacIntyre 1999). Whether it is an evocative interpretation of Tchaikovsky's fourth symphony, generating a dining experience *par excellence* or the personal satisfaction of enabling a drug offender to productively return to the community, the experiences of learning together often continue to influence in unanticipated ways long after the memories of such experiences have faded.

The second observation addresses understandings of the social in practice. The social has often been positioned as a counterpoint to individual concepts or to stand in for all that is *extra individual* (Fenwick 2008; Kim 1993). Our research supports a more textured understanding of the social that goes beyond describing the relevance of organizational settings, group dynamics or the building block effects of organizing the many. The concept of practice that we have elaborated in this chapter decentres individuals not to exclude them but to *resituate* them as constituting dynamic patterns of relations that are socially (re)produced through material and non-material means.

The concerns of the enterprise of work may use the rules and rituals of social behaviour to structure these patterns for productive purposes, but they cannot guarantee them in any prescribable sense. To sustain a practice relevant to the changing needs of enterprises and the lifeworld is to learn and develop not as isolated individuals manipulating a series of objects in time and space. It is to engage in a shared discovery process dependent *with* others that produces the provisional, productive and meaningful examples of ongoing social accomplishments in an unfolding present.

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# Chapter 17
# *Seeing is Believing*: An Embodied Pedagogy of 'Doing Partnership' in Child and Family Health

**Alison Lee, Roger Dunston, and Cathrine Fowler**

## Introduction

This chapter examines practices of 'doing partnership' between health professionals and users or clients of a health service. The move from expert-client modes of practice to partnership modes raises an important set of questions concerning the changing nature of professional practice to more specifically include the 'other' in the defining of the key activities and enactments of practices. Partnership practice is an example of a broad set of moves within the human service sector to shift the balance of power, capacity and responsibility from a provider-consumer relationship to one of co-production (Dunston et al. 2009; Brodie et al. 2009). These moves are complex mixes of neoliberal cost-cutting efficiency measures and redesigning of relationships between citizens and government in terms of active citizenship, civic participation and entitlement in relation to services. They are widespread across the human services, from health to social care, education, housing and local government and are increasingly finding their way into business and management: human resource management, marketing and so on (Payne et al. 2008).

Partnership practices are inherently relational and dialogical, involving an 'orchestrated interplay' (Green 2009: 45) of doings and sayings between actors in

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the practice that require different kinds of capabilities and dispositions from those of the expert-client modes. We are interested in what doing partnership looks like in particular instances of professional activity, and how participants – professionals and clients, providers and 'consumers' – are engaged in the undertaking of these new sets of engagements and activities. We draw on practice theory (e.g. Reckwitz 2002: 255) to construe practices as interconnected routines of 'moving the body, of understanding and wanting, of using things'. In particular, we are concerned to understand, in the light of strong international policy consensus supporting the development and deployment of partnership forms of practice, what is involved for both parties construed as partners, how each partner learns to practice in partnership and what is produced through the relationships developed between participants. The pedagogical work involved in developing capacities in all participants to work in partnership is a particular focus of our work, where the term 'pedagogy' refers to how learning and teaching are often embedded in activities and relationships not formally designated as educational.

The focus of this chapter is a recent case study of a programme of extended home visiting by child and family health nurses to mothers experiencing postnatal depression (Fowler et al. 2011). We focus, through the analysis of interview data on a set of techniques mobilised by practitioners and clients in the accomplishment of a partnership mode of engagement between health professionals and service users, in particular, the use of a video-recording and feedback/reflection process where the practitioner and the mother engage in a process of what is called 'wondering' together about recorded interactions between the mother and her baby. Through this analysis, we argue the need for richer conceptualisations both of professional practice and of the emergence of new practices in terms of pedagogical relational work – professional and client co-participating, co-learning and co-producing a practice. We show how seemingly simple principles of 'partnership' between two adults and a baby involve an interconnected array of activities, relations, knowledges and learnings, involving complex mediations in local and translocal ways, for example, through the video technique.

## The Home Visiting Programme

The home visiting programme (HVP) discussed in this chapter was conducted in Western Sydney and managed by an Australian early parenting organisation. Its stated aim was to provide non-institutional support to women with moderate to severe postnatal depression to enable them to 'enhance their maternal sensitivity and interaction with their infants' (Fowler et al. 2004). The 10-session programme was provided for women and their infants aged 4–6 months. It was designed for nurses and mothers to work collaboratively, to build a partnership in order to address immediate parenting issues, to enhance future mother-infant interactions and to equip the mother to meet future parenting challenges. In terms of health outcomes, the programme has demonstrated improved mental health and well-being for most

participants. Mothers had significantly lower depression and anxiety at discharge and reported greater confidence in their own parenting knowledge and skills. The nurses reported increased skills, resources and knowledge as well as a greater sense of confidence and satisfaction in their practice (Fowler et al. 2004).

Working in partnership with parents is understood within child and family health as an alternative to traditional approaches, which are predicated on a strongly framed, hierarchical division of labour and expertise between professional and client, and involve direction, advice giving and problem solving on the part of the professional (Bidmead and Davis 2008). A literature generated around training health professionals to work in partnership with families disrupts the assumptions within this division of labour, posits the client's knowledge, expertise and activity as critical to the process of achieving the goals, and describes the process in terms of a set of obligatory elements: developing a relationship that facilitates exploring the parent's problem, generating a clear model based on the parent's perception of the problem, assisting the parent to identify and set goals and actions to meet these goals, implementing the actions and reviewing outcomes (Day and Davis 2010).

Within the health literature, partnership presupposes the need for joint decision-making and collaboration in the therapeutic process (Gottlieb and Feeley 2005; Bidmead and Davis 2008), in this case, aimed at enhancing infant/maternal attachment and reducing the negative impact of depression on families. Partnership approaches for working with families are now widely promoted in many countries, including Australia, where this study was conducted (Bidmead and Davis 2008; Kaufman 2008; Keatinge et al. 2007; NSW Health 2009; Roudebush et al. 2006). What is substantially absent from all of this literature, however, is an account of the practices of 'doing partnership', how they are learned and developed and what they involve for both parties. Also substantially missing from this literature are critical accounts of what these practices produce in terms of intended and unintended effects, new and different capacities, dispositions and subjectivities and new relations of power and desire.

Our case study focused primarily on how nurses and mothers spoke in interviews about their experiences of the HVP. The emphasis was small-scale and close-up rather than extensive and generalised, so as to generate conceptual parameters for a more extensive study of these critical questions. Three nurses and three participating mothers were asked a set of questions concerning their knowledge and skills at the beginning of the project and what knowledge and skills they needed to develop, how the nurses worked with the mothers to assist their learning, who made the decisions about what would happen during the visit and how the decisions were made. Nurses were asked to reflect on how they worked with the mothers to support their learning about the infant and themselves as a mother and, importantly, what they learned about parenting from the mother.

In the interviews, nurses spoke of their learning to deploy a range of strategies designed, in the language of the programme, to enhance maternal knowledge, skill, confidence and resilience. These approaches included the modelling of responsive and sensitive care and a variety of techniques designed to assist the mother to identify and enhance the baby's and her own 'strengths', including approaches that encourage

a practice of mutual 'wondering' about the baby's experience and feelings. In pedagogical terms, this involved the nurses developing a form of inquiry-based learning, where the mother's experiences formed the material for the interaction and the mother's articulated intentions and desires shaped the 'curriculum' of the visit. The work of the interactions was a shared 'considering' of how to enhance future mother-infant interactions and to equip the mother to meet future parenting challenges (Erickson and Kurz-Reimer 1999). Nurses spoke of this learning in terms of an 'unmaking' of older, more directive and didactic professional relationships with clients. The mothers, in turn, spoke of being encouraged to engage in a series of new undertakings, together with the nurse, which were designed to shift understanding and responsibility for knowing and acting, over time, from the nurse to the mother. This often involved the 'unlearning' of older, more passive, resistant or disempowered relationships with the health system.

## Seeing is Believing

One specific strategy for engaging in collaborative consideration of the mother-infant interaction was the utilisation of a technique of video recording and reflection derived from a programme titled *Seeing is Believing*. This technique involved the nurse making a short video recording (3–5 min) of the mother interacting with her baby. Mother and nurse would then review the interaction in a process of 'joint inquiry'. They would watch the replay about how the infant and mother experience the interaction and actively engage in 'wondering' together about what they notice: identifying the mother's and infant's 'strengths', the infant's 'cues', what the infant might be telling them and how the mother might learn to interpret and expand a repertoire of interaction (Erickson and Kurz-Reimer 1999).

This video technique originates in the USA, at the Center for Early Education and Development (2010) at the University of Minnesota. It is part of a larger programme called STEEP – Steps Towards Effective and Enjoyable Parenting – with international spread and reach (http://www.cehd.umn.edu/ceed/profdev/inpersontrainings/steepsib.htm). This programme designed and constructed around attachment theory (Bowlby 1988) works on the premise that a secure attachment between parent and infant establishes ongoing patterns of healthy interaction and 'lays the foundation for later competence and well-being'. The CEED website states the therapeutic rationale for the video technique:

> Through filming and guided viewing, ***Seeing is Believing*** promotes perspective-taking by giving parents a chance to see, from the camera's point of view, what happens between them and their baby. We have found video technology to be a remarkable tool in helping moms and dads gain new insight into their baby's feelings and behavior.
>
> The primary goal of using filming is to promote the parents' self-observation and reinforce their growing knowledge of and sensitivity to their babies. Using the video as a self-observation tool, we present parents with a way of seeing themselves and their babies from a new vantage point. We urge parents to see their own strengths and those of their babies, and encourage them to consider their infant's perspective as they interact with their babies. The parent keeps the video as a documented memory of the baby's development. (website)

The nurses who conducted the Sydney-based HVP had been trained in the 'Seeing is Believing' technique within the organisation that manages the programme, and a direct connection was maintained with the Minnesota-based centre. This training involved technical, theoretical and relational learning. Nurses learned to build a collaborative relationship with the mother in which they were able to secure agreement to video-record interactions between the mother and her baby. The nurse and the mother would then view these video recordings together, and a process of 'wondering together' was undertaken. We are interested, first, in how the nurses spoke about their work in this process, what they understood they were seeking to do and how it shaped their practice and themselves as professionals. We will then look a little more closely at the relational work going on in the encounters between the nurses and mothers, in order to tease out further questions about the nature of this practice, how it is being enacted and with what effects.

## Lookings, Listenings, Tellings

The first striking thing we noticed about what the nurses said in giving accounts of their experiences in the programme was the embodied nature of the accounts, particularly the focus on visual activities – watchings, lookings and seeings. One nurse recalls an engagement via the medium of the video recording of the mother and baby thus:

> Specially when there was some really positive interaction happening between her and the baby – to actually ask her what did she think the baby was feeling at that time when the baby was looking at her, or checking in with her. I think for me listening to the mums when they were watching it [the video] back 'I didn't realise how much she looked at me, I thought she was too busy doing all those things.' … it was sort of enriching being able to be with the mum and for her to actually discover it by you just sitting there with her and watching it.

Here, the nurse tells of an instance when she and the mother are watching the video, making explicit connections between what they are looking at together and what the mother recalls of the experience of engaging with the baby at the moment of the recording. She tells how she asked the mother to notice the baby looking at her. There is a layered set of watchings, lookings and seeings being undertaken and recalled in this excerpt. The mother's attention is being directed to the baby's gaze, which is directed to the mother. This attention is in turn interpreted as a relational attention; the baby is not just *doing all those things* but attending as an intersubjective engagement with the mother as another 'self' in a relationship.

Further, the nurse construes the mother's *discovery* of this relational attention through the medium of *just sitting there with her and watching it*. This is both a process of watching but also mutual learning via a relational pedagogy of *just sitting there with her*. The *just* is telling here, perhaps as an instance of discomfort at what may be experienced as an abrogation of (normal nursing) activity and a refraining from doing other kinds of work, such as advice giving, and literally minimising the power of the pedagogical work.

The second striking thing to notice was the way in which *listening* and *talking* were cast around these watchings and lookings. The most obvious and consistent of the interactional patterns reported by the nurses and mothers were forms of questioning. These questionings formed a repertoire of modes of engagement with the mother, ranging from questions relating to the whole visiting encounter and its pedagogical and therapeutic purpose, through to questions designed to redirect the mother's gaze and connect it, via the medium of the video, back to her recalled bodily experience, in order to notice, interpret and learn to 'read' the baby's gaze. Thus, to begin with, a nurse reported that she would typically begin her interaction with a mother thus:

> Maybe I'd come in and, 'how are things going and what's been happening since I last saw you?' 'Oh, terrible. She's waking up three times a night and I'm exhausted' … I'd certainly listen to the mum and focus on what she's talking about – her own feelings. And we would then talk a bit about – or talk a lot about what was happening for the baby … how did the baby sort of respond to her when she came … So it was about trying to think about it in a way of not that 'I have to get this baby to sleep at night', but more about 'what's going on for the baby and how can we help the baby so then that would help us deal with what's going on'.

This first *how are things going?* move invited a report from the mother. The nurse listened to the mother's recount with the intent of then opening the dialogue to more probing questions that sought to redirect the mother's attention in order to expand the frame of reference of how this experience could be attended to and construed and then to reframe the experience in terms of a new set of patterns of interpretation. In this excerpt, the nurse speaks of this reframing as one that directs the mother's identification of the problem from a *behavioural* one that required an instrumental solution to a *relational* one that required an inquiry into the baby's experience. Through this, the baby becomes repositioned as a 'self' with experiences that needed to be interpreted and responded to. A useful perspective on this process comes from a comment from one of the mothers in the interviews:

> She'd just ask me questions, how he's going and what's he doing and all that. Sometimes I'd say – Sebastian's just really whingey today, I don't know why. She would say well, you sometimes have … you're feeling grumpy sometimes, aren't you? I'd be like, yeah. So she always made me … I was very unrealistic. I didn't know.

The mother is recalling how her initial reaction to and anxiety around her baby's 'whingey' behaviour was turned back to her to consider a parallel experience she might relate to in herself. This object-subject reversal and self-other juxtapositioning is pedagogical work that the nurse undertakes and leads but also assists the mother to understand explicitly that this is the work that is being done. The nurse and the mother are repositioned as 'partners' in the process.

For the nurse in this excerpt, this repositioning involved work on her own practices as well as those of the mother. For example, she comments on her desire to accomplish a shift from a more customary advice-giving, problem-solving and directing mode to one of assisting a reinterpretation on the part of the mother:

> I didn't want the mums to ever feel like, [the nurse] told me to do it… [She] helped me think about this in a different way and now I feel more confident about what I'm doing.

The nurse is ventriloquising the mother's words in this recount, projecting her own pedagogical goals of helping the mother to reframe her experiences. While these are cast in terms of cognitive processes of *thinking in a different way*, they are further directed towards affective and behavioural changes, feeling confident and knowing what to do. The mother is being helped to imagine a new set of possibilities of thinking, feeling and acting, through this work; as well, she is being required to enact these possibilities within the interactions. While these data do not give us intimate detail of how these things are accomplished, we can see a process of a different engagement and mobilisation of the mother's attention through directed looking, seeing, listening, reframing and remaking. This accords with recent research within the infant mental health field of the capacities of video-feedback to 'change the minds' of even severely traumatised mothers about their relationship with their infants (Schechter et al. 2006).

## Pedagogies of Wondering

In this section, we tease out some of the interactive approach and questions for what is being assumed, transacted and produced through these kinds of pedagogical practices in relation to these new ways of doing health. In the *Seeing is Believing* programme, the video recording acts as a mediating tool in the production of a set of interactions between nurses and mothers that are aimed at building a partnership (Erickson et al. 1999). This involves not only the artefact of the video recording itself but the set of intermediary activities involving negotiation, consent, planning and enactment of the recording process, including operating the camera and setting up, beginning and ending the recording, etc. New capacities, skills, judgements and dispositions become necessary to enact these kinds of practices. Introducing and handling the camera and the activities of recording and playing back are actions and accomplishments in themselves, made sensible through the lineage that connects the service-providing organisation in Western Sydney to the centre in Minnesota, including the ongoing dialogue with a designer of the *Seeing is Believing* programme and associated practices, Martha Erickson. The conditions of possibility for the recordings involved the practical training of the nurses as well as adopting and enacting the theoretical rationales for the therapeutic meaning and pedagogical value of this activity and the activities and dispositions involved in 'doing partnership'. The nurse's training in the use of the video-recording technique also shaped the dialogues, forms of questioning and listening that constitute the 'wonderings' that are jointly undertaken.

The name of the video technique, *Seeing is Believing*, signals how seeing her own interactions with her baby provides new knowledge to the mother. She is being taught to notice and interpret the happenings, her own experiences and those of her baby's in the video-recorded interactions. This technique promises to provide access to a richer account of what is going on than the mother has access to in an unmediated sense. But there is more to say about this. The video recording renders the

'real-time' flow of activity and experience, in the lifeworld of the mother in a suburban kitchen or living room on a regular morning at home with her baby. The recorded mother-infant interactions mediate the interactions between the nurse and the mother through becoming an object for examination. It is an interruption to the flow and circulation of a series of events in the history of the interaction between the mother and the child, but it becomes an event in itself in the interaction between the nurse and the mother, and in terms of effects and consequences in the life of the mother's changing relationship with her baby.

According to Latour (1996: 240), the video, as an object, is 'not a means but a mediator'. The recorded interactions become visible and available for pedagogy, creating new experiences of watching the video, in a new and different configuration of objectifying and subjectifying. What is being pedagogised? What does the 'wondering' consist of? In the terms of the *Seeing is Believing* programme and the home visiting programme that utilises it, it is interaction and 'attunement' behaviours that become a spectacle in the video recording for the mother and nurse to view together and to 'wonder' about. Attunement refers to contingent behaviours such as a mother smiling back in response to a baby's smile, or the mother following the baby's gaze as it turns away and suggesting what the infant might be attracted to, or the baby stilling in response to the mother talking.

'Wondering together' consists of conjoint activity, some of which may be symmetrical, in the sense that neither the nurse nor the mother 'actually knows', once and for all, what a baby's experiences or communicative intentions might be. Often, however, the wondering is more pedagogically framed, asymmetrically, in terms of questions asked by the nurse for drawing the mother's attention to elements of the interaction that the nurse is trained and experienced to read in terms of infant signalling and parent-infant interaction, and that the mother is learning to observe, understand and respond to. In educational theorising, there are important distinctions drawn between forms of questioning, with key differentiations concerning whether the questioner is requesting information, whether they know the answer to the question they are asking and whether they are inviting a reciprocal consideration of possibilities (Thompson 1997). A closer look at the questioning activity in the 'wondering' being undertaken by the nurse and the mother would indicate differences and degrees of openness, reciprocity, attention-directing and so on. For the nurse, this interaction will be simultaneously part of the task at hand, developing the relationship with the mother and facilitating an intervention, and an instance or evidence of something else, namely, 'maternal attunement'. This dual attention, both pedagogical and diagnostic, is part of the practice dynamic for the nurse and a familiar kind of doubleness, characteristic of health professionals, therapists and educators.

## Conclusion

Through this case study, we have examined the interactive and relational complexities of doing partnership practice in this home visiting setting. We have offered a glimpse into different ways of working that are new and challenging, both for the

health professionals, working across the boundaries of their professional expertise and other spheres of knowledge and experience, and for clients. The excerpts from the interview study shows how, in order to cultivate the capacity of both parties to work collaboratively in partnership, both nurses and participating mothers had to learn different ways of relating to each other and different ways of producing a healthcare encounter.

The relational intensity of the encounters between the nurses and the mothers is often explicitly pedagogical in nature, where both parties are involved in an explicit learning process. This study is an instance of how pedagogical work goes on between participants in service partnerships, implicitly or explicitly, in order to model, inculcate and monitor new practices, dispositions and capacities for action that are projected within the partnership (Lee and Dunston 2010). In order to understand the implications of this pedagogical turn in much healthcare practice that is attempting to develop these new relational practices, we suggest the need for richer conceptualisations of professional practice, in order to understand how practices change, from one kind of relational dynamic to another, for example, from traditional expert-based and task-focused professional-client relations to those of partnership. Reckwitz' (2002) comments on practice and change are useful in this regard. Routinised social practices occur in the sequence of time, in repetition; social order is thus basically social reproduction. For practice theory, then, the 'breaking' and 'shifting' of structures must take place in everyday crises of routines, in constellations of interpretative indeterminacy and of the inadequacy of knowledge with which the agent, carrying out a practice, is confronted in the face of a 'situation' (Reckwitz 2002: 255). Although the interviews in this study do not give us access to the longitudinal process of such breaking and shifting in a sequence of interactions that build relationships over time, they do signal the need for such accounts, in order to better understand how nurses and clients learn and develop new forms of relational practice.

These shifts in routine, forms of interaction, pedagogical skill and knowledge and facility with technological mediations of practice all have important implications for health policy in terms of service redesign and for professional education in terms of how nurses and other health professionals have access to and opportunities to practise these new modes of engagement. Further, there is a great need for practice-led research into these new practice configurations in order to re-conceptualise professional expertise and responsibility to take account of new relationships between professionals and lay users of health services. At this point in time, these practices are emergent, not well established and in some senses countercultural to both parties, as they work against well-embedded hierarchical norms, rules, roles, relationships, divisions of labour and expertise. Our research is attempting to put on the record the intricate, skilful and relationally complex work involved in developing health partnerships.

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