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),

P. Hager (✉) • A. Lee • A. Reich
Faculty of Arts & Social Sciences
University of Technology, Sydney
Sydney, Australia
e-mail: Paul.Hager@uts.edu.au; Alison.Lee@uts.edu.au; Ann.Reich@uts.edu.au

P. Hager et al. (eds.), *Practice, Learning and Change: Practice-Theory Perspectives on Professional Learning*, Professional and Practice-based Learning 8,
DOI 10.1007/978-94-007-4774-6_1, © Springer Science+Business Media Dordrecht 2012

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.

References

Ball, D. L., & Bass, H. (2000). Interweaving content and pedagogy in teaching and learning to teach: Knowing and using mathematics. In J. Boaler (Ed.), *Multiple perspectives on mathematics teaching and learning* (pp. 83–104). Westport: Alex.

Baynham, M., & Baker, D. (2002). 'Practice' in literacy and numeracy research: Multiple perspectives. *Ways of Knowing Journal, 2*(1), 1–9.

Billett, S. (2002). 'Workplace pedagogic practices: Co-participation and learning. *British Journal of Educational Studies, 50*(4), 457–481.

Billett, S. (2010). Learning vocational practice in relative social isolation: The epistemological and pedagogic practices of small business operators. In R. Poell & M. Van Woerkom (Eds.), *Supporting workplace learning* (pp. 147–164). Dordrecht: Springer.

Billett, S. (2011). *Learning through practice: Models, traditions, orientations and approaches*. Dordrecht: Springer.

Billett, S., & Newman, J. (2010). Learning practice: Conceptualising professional lifelong learning for the health-care sector. In H. Bradbury, N. Frost, S. Kilminster, & M. Zukas (Eds.), *Beyond reflective practice: New approaches to professional lifelong learning* (pp. 52–65). London: Routledge.
Boud, D., & Lee, A. (Eds.). (2009). *Changing practices of doctoral education*. Abingdon: Routledge.
Braithwaite, J. (1995). Organizational change, patient-focused care: An Australian perspective. *Health Services Management Research, 8*(3), 172–185.
Brew, A. (2003). Teaching and research: New relationships and their implications for inquiry-based teaching and learning in higher education. *Higher Education Research and Development, 22*(1), 3–18.
Britzman, D. P. (2009). *The very thought of education: Psychoanalysis and the impossible professions*. Albany: State University of New York Press.
Carr, W. (2009). Practice without theory? A postmodern perspective on professional practice. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 57–68). Rotterdam: Sense Publishers.
Contu, A., & Willmott, H. (2003). Re-embedding situatedness: The importance of power relations in learning theory. *Organization Science, 14*(3), 283–296.
Dahlgren, M. A. (2011). Preparing for working life through higher education in Europe: The examples of Psychology and Political Science over four universities. In L. Scanlon (Ed.), *'Becoming' a professional: An interdisciplinary analysis of professional learning*. New York: Springer.
Davis, B., & Sumara, D. J. (2006). *Complexity and education: Inquiries into learning, teaching and research*. Mahwah: Lawrence Erlbaum.
Dreyfus, H. (2001). *On the Internet*. London: Routledge.
Dreyfus, H. L., & Dreyfus, S. E. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer*. Oxford: Blackwell.
Engeström, Y. (1999). Activity theory and individual and social transformation. In Y. Engeström, R. Mietten, & R. Pumanmaki (Eds.), *Perspectives on activity theory* (pp. 19–38). Cambridge: Cambridge University Press.
Engeström, Y. (2001). Expansive learning at work: Towards an activity-theoretical reconceptualization. *Journal of Education and Work, 14*(1), 133–156.
Eraut, M. (2009, April). *The role of employers in professional learning*. Paper presented at American Educational Research Association Conference, San Diego.
Fejes, A., & Nicoll, K. (Eds.). (2008). *Foucault and lifelong learning: Governing the subject*. London: Routledge.
Fenwick, T., & Edwards, R. (2010). *Actor-network theory in education*. London/New York: Routledge.
Fenwick, T., Edwards, R., & Sawchuk, P. (2011). *Emerging approaches to educational research: Tracing the sociomaterial*. London: Routledge.
Flyvbjerg, B. (2001). *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge: Cambridge University Press.
Gherardi, S. (2008). Situated knowledge and situated action: What do practice-based studies promise? In D. Barry & H. Hansen (Eds.), *The SAGE handbook of new approaches in management and organization* (pp. 516–525). Los Angeles: Sage.
Gherardi, S., & Nicolini, D. (2000). To transfer is to transform: The circulation of safety knowledge. *Organization, 7*(2), 329–348.
Green, B. (1991). Reading 'readings': Towards a postmodernist reading pedagogy. In C. D. Baker & A. Luke (Eds.), *Towards a critical sociology of reading pedagogy* (pp. 212–235). Amsterdam: Benjamins.
Green, B. (2009a). Introduction: Understanding and researching professional practice. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 1–18). Rotterdam: Sense Publishers.
Green, B. (2009b). The primacy of practice and the problem of representation. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 41–56). Rotterdam: Sense Publishers.

Hager, P. (2008). Learning and metaphors. *Medical Teacher, 30*(7), 679–686.

Hager, P. (2011). Theories of workplace learning. In M. Malloch, L. Cairns, K. Evans, & B. N. O'Connor (Eds.), *The Sage handbook of workplace learning* (pp. 17–31). London: Sage.

Hager, P., & Halliday, J. (2006). *Recovering informal learning: Wisdom, judgement and community*. Dordrecht: Springer. (Reissued as a paperback in 2009)

Hager, P., & Hodkinson, P. (2009). Moving beyond the metaphor of transfer of learning. *British Educational Research Journal, 35*(4), 619–638.

Hodkinson, P., Biesta, G., & James, D. (2008). Understanding learning culturally: Overcoming the dualism between social and individual views of learning. *Vocations and Learning, 1*(1), 27–47.

Hopwood, N. (2010). *Dwelling in complexity: Relational-ecological understandings of context, space, place and the body in professional practice*. Paper presented at Australian Association for Research in Education annual conference, Melbourne, 28 November–2 December. www.aare.edu.au

Kalantzis, M., & Cope, B. (2009). *New learning: Elements of a science of education*. Cambridge: Cambridge University Press.

Kemmis, S. (2005). Knowing practice: Searching for saliences. *Pedagogy, Culture and Society, 13*(3), 391–426.

Kemmis, S. (2009). Understanding professional practice: A synoptic framework. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 19–39). Rotterdam: Sense Publishers.

Kemmis, S. (2011). What is professional practice? Recognising and respecting diversity in understandings of practice. In C. Kanes (Ed.), *Elaborating professionalism: Studies in practice and theory* (pp. 139–165). New York: Springer.

Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education*. Rotterdam: Sense Publishers.

Lave, J., & Wenger, E. (1991). *Situated learning*. Cambridge: Cambridge University Press.

Lewin, K. (1947). Frontiers in group dynamics. II. *Human Relations, 1*(2), 143–153.

Luntley, M. (2003). *Wittgenstein: Meaning and judgement*. Oxford: Blackwell.

Marton, F. (1994). Phenomenography. In T. Husén & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed., Vol. 8, pp. 4424–4429). Oxford: Pergamon.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2006). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco: Jossey-Bass.

Mulcahy, D. (2007). (Re)working relations of strategy and spatiality in education. *Studies in Continuing Education, 29*(2), 143–162.

Osberg, D., & Biesta, G. (2007). Beyond presence: Epistemological and pedagogical implications of "strong" "emergence". *Interchange, 38*(1), 31–51.

Reckwitz, A. (2002). Towards a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory, 5*(2), 243–263.

Scanlon, L. (Ed.). (2011). *Becoming a professional*. Dordrecht: Springer.

Schatzki, T. R. (1997, September). Practices and actions: A Wittgensteinian critique of Bourdieu and Giddens. *Philosophy of the Social Sciences, 27*(3), 283–308.

Schatzki, T. R. (2001). Practice theory. In T. R. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 1–14). London/New York: Routledge.

Schatzki, T. R. (2002). *The site of the social: A philosophical account of the constitution of social life and change*. University Park: The Pennsylvania University Press.

Schatzki, T R. (2011, July 11). *The edge of change*. Seminar presented at the Centre for Research in Learning and Change, University of Technology, Sydney. www.rilc.uts.edu.au

Schatzki, T. R., Knorr-Cetina, K., & von Savigny, E. (Eds.). (2001). *The practice turn in contemporary theory*. London/New York: Routledge.

Shotter, J. (1996). Living in a Wittgensteinian world: Beyond theory to a poetics of practices. *Journal for the Theory of Social Behaviour, 26*(3), 293–311.

Smeyers, P., & Burbules, N. (2006). Education as initiation into practices. *Educational Theory, 56*(4), 439–449.

Thévenot, L. (2001). Pragmatic regimes governing the engagement with the world. In T. R. Schatzki, K. Knorr-Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 56–73). London: Routledge.

Todd, S. (1997). *Learning desire: Perspectives on pedagogy, culture and the unsaid*. London: Routledge.

Tsoukas, H. (2008). *Complex knowledge: Studies in organizational epistemology*. Oxford: Oxford University Press.

Usher, R., & Edwards, R. (1994). *Postmodernism and education*. London/New York: Routledge.

Usher, R., & Edwards, R. (2007). *Lifelong learning – Signs, discourses, practices*. Dordrecht: Springer.

van Manen, M. (1999). The practice of practice. In M. Lange, J. Olson, H. Hansen, & W. Bünder (Eds.), *Changing schools/changing practices: Perspectives on educational reform and teacher professionalism*. Louvain: Garant.

Vandermensbrugghe, J. (2004). The unbearable vagueness of critical thinking in the context of the Anglo-Saxonisation of education. *International Education Journal, 5*(3), 417–422.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.