Chapter 12: Researching Workplace Learning: An Overview and Critique

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Introduction
The aim of this chapter is to build further awareness of the key conceptual themes of workplace learning research across the international scene. This aim brings with it many challenges. The challenges are rooted in the inter-disciplinary nature of the field, the ubiquity and multi-dimensionality of human learning that demands a plurality of approaches, and a range of subtle and not-so-subtle conceptual, epistemological and even ontological differences and preoccupations.

The chapter begins with a brief introductory ‘assay’ of the current research literature focusing on major perspectives in the field. It seeks to provide additional information to extend the introductory comments for the Handbook as a whole. For the remaining bulk of the chapter, I seek to profile the most robust ‘lines of research inquiry’ and key scholars associated with them. Six such lines of inquiry are discussed: i) cognition, expertise and the individual; ii) micro-interaction, cognition and communication; iii) mediated practice and participation; iv) meaning, identity and organizational life; v) authority, control and conflict; and finally, vi) competitiveness and knowledge management. Critical engagement with these ideas focuses on how they fill important gaps and deepen the intellectual value of workplace learning research as a whole. I conclude with comments urging (renewed) efforts at dialogue given the complexity, the multiple and sometimes conflicting vantage points, and importance of workplace learning to individuals, groups, organizations, governments and society as a whole.

Assaying Recent Workplace Learning Research: A Starting Point
The field of workplace learning research from the final quarter of the 20th and into the 21st century has demonstrated an accelerated expansion of conceptualizations, dissection and even vivisection (by action and interventionist researchers). The multi-disciplinarity of the literature has seen a proliferation of identified skill types: from common notions of ‘soft’ and ‘hard’ skills, general education and vocationally-specific skills, literacy, communication, comprehension, multi-tasking skills, procedural and declarative knowledge, through to somewhat more theoretically robust formulations of such things as work-related emotional skill, articulation skill, relational skills and aesthetic skill. And, the proliferation (helpful, rhetorical or otherwise) does not end there. Conceptualization of work-related learning processes has expanded as well. It is now common currency among researchers to recognize not simply individual, taught, self-directed learning, but that learning also includes formal, non-formal, informal and tacit aspects, experiential and incidental learning, reflective learning, legitimate peripheral participation, and learning ‘activity’ to name only a sampling. In turn, debate has moved in ever-widening circles from individual cognition to include emotion, biography, identity and meaning, power and resistance, social legitimacy and illegitimacy, and the social constructivist roles of communities of practice, meditational processes and participatory structures at the firm, sector, national and international levels. To make sense of the state of the field today, I begin with a brief introduction to what are often referred to in the literature as ‘managerialist’ and ‘critical’
perspectives as a necessary but likely insufficient means of orienting to the research (Bratton, Helms-Mills, Pyrch and Sawchuk 2004).

Many managerialist perspectives on workplace learning emphasize the development of human assets, organizational commitment, flexibility, and sustainable competitive advantage. In many instances these are matters of immediate economic survival for a firm, and in turn the workers, families and communities which have come to depend on them. But even from a managerial perspective, it is important to recognize that many workplace learning researchers recognize that workplace learning is mediated by power relations (e.g. positional differences such as manager, supervisor, employee, as well as broader social differences across gender, race and disability, and beyond). A good deal of this research has recognized the contradictory challenges of capitalist employment relations specifically, the way organizations both control and activate human capacities, freedoms and agency (Argyris and Schön, 1978; Coopey, 1996; Thompson and McHugh, 2002). Identified some time ago, a prominent goal in these terms is to have workers want to become flexible and agile human resources through processes such as reflective learning to generate the capacity to learn ‘faster’ than those in other organizations (e.g. Dixon, 1992). Likewise, Kochan and Dyer advise those firms adopting a ‘mutual commitment’ strategy to gain competitive advantage to make the necessary investment in their workforce and adopt concerns for lifelong learning (1995; Bratton and Gold 2003).

Other workplace learning researchers raise more fundamental concerns over arrangements of the contemporary workplace and seek to illuminate and analyze power relations, politics and conflicts of interest shape skill, knowledge and learning in a more radical way. Taking what is often called a ‘critical approach’, such researchers have developed sophisticated analyses of ‘cultural control’ through workplace learning (e.g. Legge 1995; Solomon 2001) and investigate how the training of ‘competencies’ can render work more ‘visible’ in order to be more controllable (e.g. Townley 1994; Illeris 2009). From this perspective, it is often argued that underpinning notions of ‘high quality’, ‘flexible specialization’, ‘functional flexibility’, ‘information’ or ‘knowledge’ work are presumptions that the present workforce lacks the relevant capacities to compete effectively (e.g. Livingstone 2004). Critical studies reveal, however, that only a slim proportion of these worker learning capacities are effectively utilized in the labour process itself. And moreover, training and learning opportunities are unevenly distributed across social groups. That is, for example, ‘peripheral’ workers (as well as women, visible minorities, and young workers) tend to receive the lowest level of training (Ashton and Felstead, 2001; Livingstone and Sawchuk 2004).

Working across the distinctions between managerial and critical perspectives, some researchers have carried out careful reviews of thematic trends. A key example in this regard is found in the work of Fenwick (e.g. 2006, 2008).1 Her review of research on the themes of work and learning reveals some important trends. For example, she shows persistent ambiguities in terms of ‘learning as outcome’, ‘learning as process’, and ‘learning as experience’ concluding in part that “...without better conceptual clarity, different researchers claiming to examine learning

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1 See different types of recent thematic reviews of the field of workplace learning research in Illeris (2003; Illeris and Associated 2004) and Tynjälä (2008) for example – both of which provide some orientations to research reported in (European) languages other than English.
and its relationships with various contexts of work may be studying phenomena wholly different in kind, and generating more mutual confusion than enrichment” (2006, p.266). Elsewhere Fenwick reveals that the individual as the point of analytic departure retains an important, foundational presence in the field (even when notions of communities and groups are considered), irrespective of the perceived onslaught of organizational, cultural or participatory approaches. A rough tabulation based on Fenwick’s work suggests that approximately two-thirds of the research journal articles of the field take up such approaches. She goes on to show that there remains a disconnection between learning and power relations within many research approaches, a tendency for instrumental orientations in network analysis, and a tendency for those interested in analyzing levels (individual, team, project, organization) do so in static rather than dynamic ways. Most broadly, Fenwick suggests the tendency of self-referentialism with frequent calls for research in areas that are well-undertaken in other disciplines while at the same time “theorizing subtle dynamics of learning processes, and drawing upon wide-ranging theoretical bases to do so” (Fenwick 2008, p.239-240).

Here I recommend that this basic recognition of managerial and critical perspectives on the one hand, paired with the type of thematic analysis on the other can be further complemented however. I suggest that this can be done by seeking to identify the most robust workplace learning research programs.

Contemporary Lines of Research Inquiry: A Comparison of Themes and Representative Models

Based on a review of journals as well as edited collections and monographs that explicitly fixate on forms and processes of work-related learning and knowledge development below I identify several robust centres of research interest. I identify these based on several general principles. That is, they display the capacity to articulate more whole rather than less whole models of both work and learning; they orient to broader theoretical positions on the nature of the individual, the social and the institution of work and economy. Moreover, robust research is embedded in well constructed empirical programs which virtually always offer a challenge to mechanistic view of reality. That is, phenomenon such as cooperation and conflict, human agency and freedoms as well as determinations and structure are each fundamental to reality yet only in robust lines of inquiry are they both articulated. Most importantly, robust research tends to explicitly recognize the inherent value-laden or political nature of workplace learning. Such principles are of course relatively independent of topic and method choice, and thus my basic point here is simply this: under conditions of multi-focal and multi-disciplinary research there is much to be gained by moving beyond matters of topic and method. With these selection principles in mind, the following six themes offer what I believe to be the most robust, contemporary research programs with something to teach us all.

Cognition, Expertise and the Individual

The themes of cognition, expertise and the individual remain key entry points for a great deal of workplace learning research as I have suggested. In this regard it is relevant to begin by noting the work of Michael Eraut which is among the most widely cited workplace learning research today. Eraut outlines his work in another chapter of this Handbook thus I need only to summarize its key aspects beginning with the fact that his work remains particularly central to
analysis of professional development. He has offered an approach that incorporates many elements that make up the phenomenon of workplace learning based on extensive empirical exploration, testing and application to policy and practice. Conceptually, the strengths of Eraut’s core set of models (e.g. 2000, 2004, 2008) is that they builds on a number of inter-linked conceptual frameworks to produce an interactive typology of modes of learning, temporal trajectories anchored by an explicit epistemology of practice. His approach emphasizes levels of information processing from unconscious and implicit processing to conscious, goal-directed problem-solving, and demonstrates the many dimensions of workplace learning involving different functions of memory, reflection, discussion and planning. Among other things, the work provides a key means of assessing the formal/informal continuum of workplace learning inclusive of its implicit and tacit aspects: i.e., “the acquisition of knowledge independently of conscious attempts to learn and the absence of explicit knowledge about what was learned” (Eraut 2000, p.12).

It is worthwhile pointing out that as a key example of professional work and learning specifically, the topic itself demands the fore-fronting of matters of autonomy and creativity that are shaped by the normative character of these types of labour. Thus, in place of a framing of learning amidst conditions of structural conflict, alienation or resistance for example, we tend to see such issues cast as barriers to professional development – a subtle but important distinction. It is in the professionalized work context that the distinctions between informal and formal knowledge and, specifically, the questioning of traditional modes of transmission of stable knowledge forms becomes a distinctively loaded concern. But what may be of particular interest in these terms is the prominence of various types of planning functions in Eraut’s work. Instances of deliberative learning are largely rooted in self-selected learning projects; self-selected in relations specific to the culture of work life of professionalized workers (Eraut 2007; Eraut and Hirsh 2007) distinguishing it from those workers with less control over their own work. Even still, Eraut’s approach recognizes that the goal of ‘learning’ in the workplace is regularly subsumed by other matters and with this I suggest, we discover wider applicability and a means of cracking the code of the mutually constituting work and learning relations across implicit, explicit, reactive or deliberative moments more generally.

The work of many other leading researchers complements and extends Eraut’s work. In the area of professional development the work of Ellström (2001), Järvinen and Poikela (2001), Ericsson, Charness, Feltovich and Hoffman (2006) as well as contributors within Boshuizen, Bromme and Gruber (2004), for example, provide additional detail to the role of other cognitive dimensions of workplace learning including memory. Bauer and Gruber (2007) specifically draw on this research to explain, advocate for and extend what they refer to as a micro perspective on expert domains of work knowledge with special attention to script theory. The work of Beckett and Hager (2000, 2002) offer yet another complement (and counter-point) to the basic themes of Eraut’s work. They provide an alternative epistemology of practice, adding detail on the nature and role of judgement across conditions of contingency, practicality and the particularities of context and the embodied and holist nature of professional working knowledge.

Other, more general starting points for research within this theme involve a concern for learning transfer. In fact, stemming from a concern to re-establish a research focus on the individual learner against the perceived ‘panacea’ of contextual, social constructivist and
participatory systems analysis, Cheng and Hampson (2008) provide a excellent updating of the case for sustaining research interest in learning transfer. Drawing on a theory of planned behaviour (which focuses on intentions and antecedents), these authors conclude with that skill use and transfer should remain the keystone measure of training vis-à-vis the individual.²

These and related approaches are, I suggest, a logical expression of both the cognitivist as well as the predominantly individualist approach that characterizes this first theme. They are hardly exhaustive of the interests relatable to the topic area of cognition, expertise and the individual. As the brief review of Fenwick’s (2008) discussion of approaches to the individual and collective dimensions of workplace learning showed earlier, individual approaches retain a powerful place in the field, and I argue here that research into workplace learning would almost certainly be undermined were such concerns marginalized. There are however decidedly less individualized ways of approaching cognition and expertise. Among these is a tradition of workplace studies that focuses on micro-interaction.

**Micro-Interaction, Cognition and Communication**

Quoting Harold Garfinkel, the originator of the field of ‘ethnomethodology’, Engeström and Middleton (1998, p.2) tell us that “there exists a locally produced order of work’s things; that they make up a massive domain of organization phenomena; that classic studies of work, without remedy or alternative, depend upon the existence of these phenomena, make use of the domain, and ignore it”. Rawls (2008) draws a tight linkage between Garfinkel’s work and workplace studies as the science of exploring the “taken-for-granted methods of producing order that constitute sense – accompanied by displays of attention, competence and trust” (p.701). While ethnomethodology is far from the only approach to interaction, cognition and communication, it does make for a fitting introduction to this brief section. Clearly, these are matters of potential interest to those researching workplace learning.

Within the fields of pragmatics, communications, ethnomethodology, conversation analysis, actor network theory, symbolic interactionism and an extended family of other approaches there is a range of researchers who have for several decades sought to pay careful attention to micro-interactional achievements that underwrite both work and learning processes. Importantly, they do not rely on survey, interview or other self-report methods. As is noted in Luff, Hindmarch and Heath. (2000), this tradition focuses on strips of naturally occurring interaction and talk (e.g. Drew and Heritage 1992). Roughly speaking this field of studies has both a language arm emerging with a focus on talk and roots in discourse analysis, socio-linguistics, speech act theory, semiotics and conversation analysis³; as well as an arm exploring material practices and interaction⁴, the latter with roots in studies of science and ethnomethodology but covering many forms of work.

Of these, the lineage that began with investigation of scientific workplaces specifically (e.g. Latour and Woolgar 1979; Knorr-Cetina and Mulkay 1983; Latour 1992; Pickering 1992)
appears to have remained strong. But Suchman’s ground-breaking study of human-machine interaction (1987) is just as seminal. And since then, robust approaches to work analysis of this type have included detailed studies of virtually any activity where quality recorded data of actual participatory events can be gathered or accessed. Much recent research has dealt with the role of work and technological design (e.g. Luff et al. 2000) including but not limited to research originating from Human-Computer Interaction and Computer Supported Cooperative Work. Such research asks how everyday environments shape communication and cognition; how, for example, the use, misuse and alternative uses of computer artefacts leads to reproduction as well as change in workplace cultures; how, for example, interaction at work is either organized or disorganized by changing goals and objects of work.

Analyses emerging from these types of methods have been able to detail the local invention and reproduction of ‘mindful practice’ (see Engeström and Middleton 1998) at the individual and collective level, as well as the process through which expert practice comes about on an everyday basis. The collection edited by Pickering (1992) summarizes this general perspective with its focus on how ‘practice’ is actually carried out in ways not generally recognized by actors themselves addressing its implications for work organizations. A problem from the perspective of workplace learning research, however, is that such researchers tend to carry out analysis without reference to ‘learning’ per se. The suggestion here is that this should not be viewed as a serious limit to workplace learning researchers however. After all it answers many questions. How exactly do we know ‘workplace learning’ when we see it? And perhaps in particular, what exactly is the nature of on-the-job and informal learning that seems to make up so much of the skill and knowledge development and acquisition process?

In relation to the goals of this chapter the distinctive origins and contributions of this cluster of approaches retains relevance. It links us to an alternative perspective on matters of cognition and mindful practice in the course of moment-by-moment micro-interaction, as an unfolding accomplishment. At the same time, however, not unlike the research discussed in the previous section, it tends to marginalize a number of important questions such as the broader organizational context as well as the broader structures of participation and the many factors that shape or mediate the types of interaction that ultimately produce learning at work.

**Mediated Practice and Participation**

There are a variety of researchers that can be drawn on in order to illustrate this theme as well. However, if we wish to begin with a focus on particular researchers, two contributions stand out. The first is found in the work of Yrjö Engeström. Like Eraut, Engeström offers a profile of his work in this Handbook, so only a brief introduction is offered here. The key orienting theoretical school for Engeström (e.g. 1987, 1990, 2001, 2008) is what is known as Cultural Historical Activity Theory (CHAT). It is a tradition that builds originally on the Marxist-inspired research of the Russian psychologists L.S. Vygotsky and A.N. Leontiev and others to make the claim that learning must be considered in terms of how external social-material relations of mediation and participation are inseparable from, but also functionally prior to, individual skill and knowledge capacity: a claim that provides a valuable complement (or counter-point) to the largely cognitivist and/or individualised approaches seen earlier. That is, what most people think of as skill and knowledgeability, in the conventional sense, may be seen as a by-product and currency of practice rather than a function of individualized cognitive processes per se.
Engeström’s (1987) seminal work frames learning as a participatory structure defined in the CHAT tradition as activity. Activity composes a specific set of ‘object-related’ practices: broadly speaking, practices organized by broader collective purposes that define the individual, self-conscious tasks, roles, operations and artefacts use of which it is composed. Thus activity is defined as the system through which individuals and groups engage in social action mediated by material things or tools, symbols/discourses, rules and divisions of labour which is said to be the minimal, meaningful unit of analysis of human development at the workplace or elsewhere. Building on the founders’ earlier work, Engeström’s approach maintains that systems of activity include the broader social-structural motives/objects (e.g. the broader relations and forces of production), self-conscious goals and action (e.g. work tasks), as well as tacit operations (e.g. the local social and material conditions within which task are accomplished). Importantly, this transcends the boundaries of many approaches to the learning process which fixate on formal, informal, experiential, self-directed, reflective and tacit. Such a position loosely parallels aspects of a similar point offered by Billett (2002) that the distinction between formal and informal learning may in fact be unhelpful to researchers, if not altogether spurious.

Approaches to workplace learning that forefront participation are not limited to CHAT. The second major tradition within this theme is, of course, the pervasive theories of situated learning, legitimate peripheral participation and communities of practice. Situated learning approaches are typically associated with the work of Lave and Wenger (1991). In their seminal text, they draw on ethnographic materials inclusive of several workplace examples to provide a program of inquiry into learning as a dimension of social practice generally.

Social practice is the primary, generative phenomenon, and learning is one of its characteristics.... [It] is an integral part of a generative social practice in the lived-in world... Legitimate peripherality is a complex notion, implicated in social structures involving relations of power... [It] can be a position at the articulation of related communities. In this sense, it can itself be a source of power or powerlessness, in affording or preventing articulation and interchange among communities of practice. (1991:34-36)

A host of researchers have drawn on situated learning and community of practice concepts, but among the most effective, recent examples are those emerging from a community of British researchers (see Fuller and Unwin 2003; Evans, Hodkinson and Unwin 2003; Fuller, Hodkinson, Hodkinson and Unwin 2005; Felstead, Fuller, Unwin, Ashton, Butler and Lee 2005; Evans, Hodkinson, Rainbird and Unwin 2006; Felstead, Fuller, Jewson, Kakavelakis and Unwin 2007; Fuller, Unwin, Felstead, Jewson and Kakavelakis 2007; Kakavelakis, Felstead, Fuller, Jewson and Unwin 2008) who have offered both conceptual expansion and effective application. While situated learning is not the only conceptual preoccupation of these researchers, they have effectively explored gaps in the tradition. Specifically, they pay close attention to the specific effects of economic context, mediations and relations specific to employment which are shown to be under-articulated in Lave and Wenger’s original work. Notably, they build a deeper understanding of barriers and the definitions of communities from employee perspectives. In fact, this cluster of research offers a key example of the types of bridges that can be built across those researchers beginning from an interest in participatory structures on the one hand, and
those interested in matters of conflict and control, and those interested in identity and meaning on the other.

As a whole researchers associated with this theme seek integrated analysis. Whether it is artefacts or relational mediations by elements of a community of practice, we see exemplars of how individuals, groups as well as the many things that enable and shape their participation and learning are inseparable from one another (see Niewolny and Wilson 2009). Though at the same time, in some criticisms of the approach we see claims that the individual herself, her identity and attempts to generate meaning are at times sacrificed. Whether this claim can be sustained or not, the fact remains that there are other researchers who take up these very issues as their core point of departure.

Meaning, Identity and Organization Life
The themes of meaning, identity and organizational life have developed into a central set of concerns in the field of workplace learning research over the past two decades. Of the contemporary scholars who have developed robust lines of research inquiry in this area the work of Sylvia Gherardi stands out. In one sense, her work has taken a series of learning topics as grounded examples with which to flesh out dynamics associated with broader concerns over the nature of organizational life. Perhaps what is most impressive is the diversity of topics through which we see active concern for matters of subjective and objective reality, agency and structure, and organizational change processes.

Among her goals is the broadening of the dimensions of organizational knowledge, its production / reproduction, and its relationship to identity and meaning. Gherardi and colleagues seek to challenge the uni-dimensional and hierarchically ordered dimensions of organizational knowledge in these terms. In this sense, there is an implicit orientation to analysis of power relations in learning and work. For example, together with Nicolinia and Strati, Gherardi demonstrates a keen interest in balancing economic with subjective human needs in their research on “passion... expressive relations and attachment” (2007, p.315). Analysis in Bruni, Gherardi and Poggio (2004) further strengthens the case for multi-dimensionality of organizational knowledge in relation to gendered/hetero-normative construction of entrepreneurial activity. Here the authors draw on Feminist theory of identity among other traditions to study gendered identities at the level of interactions and discursive practices. Gherardi’s research highlights the ‘how’ of the workplace learning process drawing on the subject’s use of language to produce fine-grained accounts on the presentation of self and ‘footing’ in interviews, of a gendered ‘dual presence’, matters of legitimacy, and more generally the importance that detailed empirical work provides of the divisional structures (male/female; homo-/hetero-sexual) and the spaces of organizational life “breached... negated”, “blurred, crossed and denied” (2004, pp.423, 418-419). Gherardi’s recent publication (Gherardi 2007) offers an accumulation of earlier insights. Her preliminary discussion of the texture of workplace organizations, learning and ‘knowing-in-practice’ (2004; Gherardi and Nicolini 2000) is expanded nicely. The empirical focus is on workplace safety as a learning process. In it safety is understood as a property emerging from the ordering of identities, technologies and knowledge in an organizational network; a specific form of knowing and organizational expertise. Again identity has a key role.
An important question that emerges in Gherardi’s work concerns the degree to which it goes beyond an account of adaptation to organizational norms vis-à-vis work and learning processes. We find rich analyses of transgression (e.g. in her analysis of gender and sexuality at work) though in her latest work on safety, a concern for breakdowns, repairs, mending, darning, quilting practices appears to inherently orient toward a return to organizational normalcy of one type or another. In this sense, what becomes less clear is how these processes relate to forms of both organizational and broader social and economic change dynamics (cf. Gherardi 2006 and Gherardi and Nicolinini 2000; Gherardi 2004; Gherardi, Nicolinini and Strati 2007).

In many ways, Gherardi’s research speaks to the current status of organizational learning approaches generally. Organisational learning is, from this perspective, a process of 'knowing-in-practice' incorporating formalized, informal and tacit dimensions. Derived from this, organizational knowledge is seen as having the following characteristics: it is situational, relational, continually translated into practice, dynamic and provisional (Gherardi 2004, p.62). Notably, these characteristics of organizational knowledge include attention to the role of memory. In these terms, there are a number of potential points of contact between Gherardi’s work and that of Eraut or several of the micro-interactionists discussed earlier.

Gherardi’s work is obviously not alone in its concerns for these areas. Building on earlier work (e.g. Usher and Solomon 1999) and incorporating scholars associated with the discursive and cultural turn in the analysis of workplaces in the 1990s (e.g. Anthony 1994; Du Gay 1996; Gee, Hull and Lankshear 1996), Solomon (2001) offers another key example of additional workplace learning research in this area. She has shown that matters of meaning and the shaping of identities by organizational environments and managerial technique represent a crucial dimension of workplace learning:

[C]ulture today has a privileged position due to its endeavour to structure the way people think, feel, and act in organizations. Although it may be tempting to accept and understand culture as a cliché or a fad, by doing so we would be overlooking its power as one of the key technologies for managing work and managing people. (p.41)

This link between identity, culture and control in workplace learning is further developed in the collection edited by the Billet, Fenwick and Sommerville (2006; see also discussions in Fenwick 2001, 2008). Among the most important advances here is not simply the recognition of the role of identity in process of control, but, going a step further, its role in creative, subversive and resistant responses in the workplace including the learning associated with self-invention. Thus, while work such as Gherardi and associates offers a leading, contemporary example of the development of meaning, identity and organization, we see in this theme area a concern for matters of power, conflict and control: a theme that is addressed in a somewhat different way in our next section.

**Authority, Conflict and Control**

To this point, we have seen that while questions of conflict and control have been entertained within several other theme areas, they are not typically the core focus and nor are they typically
understood as inherent elements of workplace learning (or society) itself. In a series of articles beginning in the late 1990s driven by the need to understand the nature of the informal learning in relation to other forms of learning and an interest in generating aggregate estimates of levels of activity, D.W. Livingstone established national networks of informal learning research focused on work in all its forms. Livingstone’s conceptual framework specifically emphasizes the mutual roles of agency, structure, power and control.

His model explicitly forefronts issues of human agency/freedom, and we see that from his perspective different forms of learning represent distinctive loci of agency. In this approach, learning forms can express the standpoint of dominant institutional structures (e.g., through curriculum, organizational policy, teacher authority) while others can express the standpoints of the learner and their community (e.g., cultural forms, content, habitus, language codes). The model thus forefronts issues of authority, conflict and control in understanding learning and work which he has claimed is the ‘missing link’ in much workplace learning research (Livingstone 2001). While authority, conflict and control are more easily recognized in organized forms of vocational education and training for example, Livingstone has also shown their role in shaping informal learning and informal education as well. These are defined as either ‘situational’ or ‘pre-established’. He includes in each both taught and untaught learning carried out in self or collectively-directed ways, or with the guidance of an expert other (e.g., mentor, teacher, coach). The social and economic context through which power is exercised is addressed in Livingstone’s research as deeply shaped by the nature of capitalist society. Across Livingstone (2001, 2006; see also Livingstone and Stowe 2007) we see significant differences between time spent on formal, non-formal and informal learning in relation to work, and indeed only in terms time spent on informal workplace learning do we see a form of social parity across differences. This raises important questions about the nature of control and opportunity within these different forms of learning. The approach is further extended in terms of relations of formal education, labour markets and workplace learning in Livingstone (2004) which stands along with the work of Coffield (e.g. 1999, 2000) as one of the leading, contemporary criticisms of human capital theory.

These themes of authority, conflict and control are seen as politicized and inherent to work in capitalist society, and in several ways Livingstone’s work has some important linkages with the research on workplace learning emerging from labour education, an important sub-field of workplace learning research. In most advanced market economies labour education research and practice has generated findings related to matters of how workers struggle to learn, represent themselves adequately in economic life, and/or seek to build a more democratic environment in workplaces through various forms of learning/education. From a labour perspective, adult education and training have long been viewed as a means of improving the quality of paid workplace experience and job security by developing job-related skills, formal, informal and tacit. The work of Cooper (e.g. 2006) has been among the most conceptually developed in terms of theorizing workplace learning and union development. Researchers in this area argue that the quality of work and employability objective of adult education and training is made a reality by turning the workplace learning rhetoric back on management (e.g. Spencer, 1998). In this regard, Forrester (1999) argues that neglecting wider socio-economic conflict, control and the political nature of workplace learning might unwittingly make the “brave new world of pedagogies in relation to work and learning” (p.188) a managerial tool for work intensification and control in
the workplace. As Spencer (2001) warns, the rhetoric and enthusiasm for workplace learning, both from adult educators and some corporate leaders, can form part of a social technology that masks “new forms of oppression and control in the workplace that should be acknowledged in workplace learning research” (p.33; see also McIlroy 2008); a point raised in a different way by researchers of culture and identity such as Solomon discussed above.

Other researchers have explored related threads to these types of arguments. Tannock (2001) has looked at such matters for youth employment from a labour perspective. A variety of researchers have explored lifelong learning policy (e.g. Payne 2001; Forrester 2001; Coffield 2000). Still others have looked at ongoing work practices (e.g. Nissen 1994; Foley 1999; Worthen 2008; Sawchuk 2001, 2003). Looking specifically at the United States, the work of Harris (2000) and Altman (2008) provides extended looks at workplace learning through the 20th century with impressive integration of factors. Above all, issues of conflict and control in employer-employee relations remain central according to these analyses while it is demonstrated that some of the most progressive gains in work and workplace learning practice have emerged historically out of collective bargaining processes including quality of work-life/learning, paid education leave and the systematic linkages between continuing education and the workplace.

As useful as this research is however, a significant gap remains regarding serious attention to the competitive pressures imposed by what many argue to be the reality of the emerging, globalized knowledge economy. Discussion related to these pressures in the first three themes I covered has been either presumptive or vague in this regard, while the research in this current section has tended to offer criticism of it primarily. Thus, in the material reviewed thus far there is virtually no discussion of the role of corporate leadership and the organizational strategies that in their own terms seek to effectively manage learning and knowledge production. This is a matter that leads me to my final theme of competitiveness and knowledge management.

**Competitiveness and Knowledge Management**

As Cheng and Hampson (2008) have recently remarked: “[a]s the idea that work has become increasingly knowledge based has taken hold, investing in intangible assets – especially human capital – has been regarded as a core strategy for competitive advantage” (p.327). In many ways key contributions to understanding these concerns is found in the work of Ikujiro Nonaka. As distinct from traditional strategic management (e.g. Mintzberg, Quinn and Ghoshal 1998), Nonaka and colleagues emphasize the pragmatic, practical (and even existential) dimensions of creating a truly knowledge-based firm. While hardly alone, Nonaka’s work provides a key example in economic and managerial thought important for its comprehensive appreciation of epistemology, ontology, a concern to resolve the false dichotomy of objective and subject dimensions of reality, as well as its recognition of the importance of place. Nonaka and colleagues’ work forefront active/tacit dimensions of learning and knowledge in the firm; it addresses interactive institutional places (or ‘ba’) whether these are found in departments, firms, sectors, or related institutions such as the university. Here it is claimed that knowledge-generation emerges out of dialectical contradictions. In this sense his work provides a series of potential points of contact with several other themes discussed above.

The work most central to Nonaka’s reputation is likely *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation* (Nonaka and Takeuchi...
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1995). It represents a seminal publication from which much of his later work is drawn. In it he offers comparisons between American and Japanese management highlighting their distinct orientations to knowledge and learning. Findings here suggest that North American management and the structure of American capitalism predominantly orients to formalized and explicit knowledge expressed in tendencies toward benchmarking and incrementalism. It is argued that this lies in contrast to Japanese management’s concern for tacit, embodied, intuitive and constructivist notions of learning and knowledge as well as the larger role for state (as well as types of cultural) regulation in Japanese capitalism/society. Nonaka and Takeuchi (1995) suggest that the latter produces greater potential for creativity and responsiveness to changing conditions emphasizing the value of the connection between production and top management vis-à-vis middle-managers and front-line supervisors who serve as the human mediators (making personal knowledge of employees available to the firm), the keystones of the transfer (both upward and downward) of innovation.

Later work expanded further on knowledge management and conceptual development of the concept of ba (e.g. Nonaka and Konno 1998), and contradictions (e.g. Nonaka and Toyama 2002); each useful for expanding thinking on the nature of the competitiveness of a firm beyond conventional management strategy. Noting its placement within concerns for the nature of management, strategy, as well as economic climates, Nonaka’s work exemplifies a concern for learning processes which allows us to imagine certain bridges to themes discussed earlier. It seeks to represent the dynamic interaction of explicit and tacit workplace learning across specific, multiple places. It highlights what is referred to as the dialectic of internalization and externalization.

It is from such analysis that Nonaka’s approach to Knowledge Management (KM) emerges with its focus on the tacit-to-explicit learning transaction: the concern for transformation of previously invisible human capacities into manageable resources of the firm. In relation to KM specifically, Nonaka and colleagues have generally sought to theorize “the cost of knowledge as inputs and the knowledge conversion rate” where firms are understood as “a collection of knowledge assets” (Nonaka and Toyama 2002, p.996). His work goes on to problematize the difficulty of converting tacit knowledge to resources for the firm noting that, as yet, there are few effective way to for “evaluating and managing knowledge assets” (p.997). Nonaka and Peltokorpi (2006) review of the KM field demonstrates that “[c]uriously, only a few scholars have discussed the nature of the knowers, humans” (p.76), that if mentioned at all KM research has tended to produce highly “deterministic or voluntaristic” (p.77) portrayals of the learning process. The articulation of knowledge-creation at the level of the actor including discussion in Nonaka, von Krogh and Voelpel (2007) and Nonaka and Toyama (2007) where the focus is on knowledge creation process and practical wisdom (i.e. phroenesis) remains concerned with establishing conceptual reference points in these terms.

While the research of Nonaka and colleagues, as well as others in the KM tradition provides effective outlines of how firms face competitive pressures through attention to learning, in fact there exist other traditions within this theme area that are well suited to speak to these same matters as well. A prime candidate for this is to be found in the field of Organizational Development (OD). A key example from this field is the work of Raelin (e.g. 2000, 2007).
Raelin provides an applied model of new organizational forms and levels of cooperation required by a competitive, ever-shifting business environment. He draws on different theoretical perspectives than Nonaka and colleagues, though his work is equally broad. In terms of analysis of learning itself Raelin’s work provides much of what Nonaka and colleagues may be missing. Raelin specifically identifies the need to increase forms of individual and collective reflection, and in this sense evokes the broad tradition of both reflective learning (e.g. Argyris and Schón 1978) and self-directed learning (e.g. Knowles 1975). Drawing on the work of Polanyi, in Raelin (1998) we see additional discussion of an epistemology of practice organized around recognizing tacit knowledge and then fostering the integration of tacit and explicit knowledge that parallels the interests of Nonaka. Here we also see some tenuous (and perhaps some contentious) points of contact with the work of Eraut on the one hand, and Beckett and Hager (2000, 2002) on the other, both discussed earlier in the chapter.

Conclusions for Moving Forward

If one has come to be interested in the field of workplace learning enough to be reading this handbook then it is likely in one form or another she will recognize the reality that was given voice by Barnett when he wrote a decade ago “work has to become learning and learning has to become work” (1998, p.42). This statement has both a common sense as well as a startlingly challenging quality to it. It suggests that there are powerful forces at play when we consider workplace learning. This is so whether one views such forces as naturally given by intensifying global competition to which the primary response is the knowledge-intensive organizations (e.g. Nonaka). This is so if one views such forces as matters of social struggle over the democratization of work and learning (e.g. Livingstone). This is so whether we understand the workplace as a site of identity construction and meaning-making (e.g. Gherardi). And, it is also so where we orient to workplace learning as a complex of formal, informal, tacit, planned and unplanned (e.g. Eraut), situational and highly mediated participatory learning process (e.g. Engeström; Lave). In all cases, the stakes for developing a better understanding of workplace learning are high for individuals, their careers, families and communities, for firms, national or global economies, for specific social groups or specific economic classes. All the more so when we remember that learning effectively defines the process of human change. Indeed, if we accept the notion that learning equates to the process of change we are left with an interesting transposition within Barnett’s claim: work has to become [a change process] and [the change process] has to become work. This puts front and centre more than a few value-laden questions beginning with what kind of change and change in whose interests? In short, we likely have the stage set for a future of even more intensely political questions in the field of workplace learning; played out across myriad conceptual and methodological choices, topical preoccupations and explicit or implicit political beliefs and commitments.

Given that the aim of this chapter was to offer an opportunity for both a constructive and critical engagement with workplace learning research across the international scene, the initial assay of the field introduced the multi-disciplinarity and diversity of conceptual and topical preoccupations. The bulk of the chapter turned toward offering a profile of six key themes and a selection of key authors which exemplify them, outlining accomplishments, gaps and above all opportunities for dialogue.
What should be clear, however, is that a guiding thread of the discussion has been that balkanization of research communities into self-referential camps remains an important challenge. It is a challenge that must be balanced against the creative potential that emerges out of sustained discussion that focused communities of scholars often produce. The simple message of this review is that no single thematic area of research can lay claim to any sort of definitive account of the multi-dimensional phenomena of workplace learning research as a whole. In this sense, some form of cross-fertilization across the types of robust lines of research inquiry that were explored will continue to prove useful.

References


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