Paul Gibbs *Editor*

Learning, Work and Practice: New Understandings

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Foreword

In the age of the 'knowledge economy', the belief is widely expressed that work organizations are only as good as their people. The performative knowledge and skills of workers are the organization's primary assets. Individual knowledge forms the basis for communication of information to others who will then make sense of it in the light of their own personal knowledge. For individual knowledge to become organizational knowledge, and thus fully contribute to the work organization, it must be shared and accepted by others. This may be problematic as individual knowledge is often unrecognised not only by the work organization but often by the individual holding the knowledge, in such cases the knowledge is "tacit" and its use within the organization is limited. The complexity and richness of learning through work, at work and for the purposes of work are now widely recognised by human resource professionals and academics alike. Whilst work-based learning is fundamentally challenging to traditional concepts of disciplinary-based knowledge, it has become a feature of the higher education landscape impacting upon learning, teaching and research and providing a new dimension to the role of the modern university. Over the last 20 years, there has been a growing scholarship of work-based learning ranging from the exploratory and the descriptive to sustained engagement with the ontological and epistemological challenges of learning from and for the purposes of work.

This book stands out as a timely and above all scholarly contribution to our understanding of work and learning. The distinguished contributors bring to bear a range of international perspectives spanning cultural as well as disciplinary understandings. The book provides an exploration not only of the context of work as a place of learning but also logically extends into the domains of philosophy and ethics. The central theme is that work is an essential part of our being, and thus, the book raises our sights beyond the performative value of understanding the complex

relationships between work and learning to an appreciation that the study of work and learning is fundamental to our increased understanding of the human condition. In this way, the authors make an important contribution to an increasingly mature field of study.

Director, Institute for Work Based Learning Professor Jonathan Garnett
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Chapter 1
Introduction: Thinking About Work in Work Based Learning

Paul Gibbs

The chapters in this book deal with work and learning, and to introduce them, I would like initially to discuss the idea of work that stands behind the whole volume. The essence of work is the essence of being, for it provides a point of departure in our understanding of the being within a specific context, the workplace. As Kovacs comments, 'work is an essential part of human life as recognised by all serious reflection on the value of human activity' (1986, p. 195), and this is the case not just for the privileged professional creative worker but also for those vast numbers who work just to earn enough to get by and do not wish or choose to gain from improvement or reflection on their working position. As Shershow pointedly reflects, we see ourselves as '*working to live* and as *living to work*: understanding labour at once as inescapable obligation… and as the definitive essence of our humanity' (2005, p. 13, italics in original). This phrase complements Arendt's more dramatic distinction where we 'eat in order to labor and must labor in order to eat' (1958, p. 143). Of course, it is not the only point of departure (contact with the natural world, family engagement and contact with our own historicity are others), but it is an important one for it holds many of the practices through which we thrive to achieve and produce many of the means by which we may realize our lives, even if we think we just want to do the job and then get away, for our work is an inescapable component of our being.

Arendt tackles the nature of work or labour itself as part of the human condition. She claims that the human condition of labour is life itself, and of work is worldliness, and reveals a distinction between the labour of the body and the labour of the hands evoking labour's essential purpose of sustainability and its circular temporality. In terms more familiar to Heidegger, Arendt argues for a distinction between the utility of labour and work as 'in order to' and in terms of 'for the sake of' (1958, p. 153).

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Our role as labourer is to work repetitively on things which are means to ends, the ends being life-supporting consumption. The repetitiveness of labour is entrapped by the rhythm of machines and is destined to produce for consumption, unlike the enduring, planned, creative fabrication of the worker. We act as workers, as *homo faber*, when we create enduring things. Moreover, it is the efforts of the worker that structure a world other than of nature – indeed, against nature, for it is created from violence done to nature, the sum total of which constitutes the human artifice as the world we live in. However, in work, 'the impulse towards repetition comes from the craftsman's need to earn his means of substance, that is, from the element of labor inherent in work' (Arendt 2002, p. 368). Here then, even in the more creative and engaging aspects of work, we may still need to earn a living. However, these aspects themselves might constitute labour if they become repetitive or if we are required to create multiples to earn a living. In this case, the things which were created as ends in themselves become user objects and as such become means to alternative sources of consumption.

Unlike work, the end of which comes when the object is finished, ready to be added to the common world of things and objects, labour always moves in the same circle prescribed by the living organism, and the end of its toil and trouble comes only with the end, that is, the death of the individual organism. Labourers are not only caught up in the familiar consumption of beings – by means of shopping, dining, movies, and travel – they are also viewed instrumentally as a means to an end to the extent that they rest and refresh us for the sake of becoming more efficient and productive workers.

The third aspect of *vita activa* is action, the plurality or our relationship to others. It is this activity that occurs with others that defines our being. Whilst a person can labour or work alone as well as with others, action always requires the presence of others who, like the actor, are unique human beings. Action is our capacity, which derives from our uniqueness, to do something new, something that could not have been expected from what has happened before, that reveals who we are and that, once done, cannot be undone. Others may then act in response to our action, creating a process that is boundless and unpredictable: unlike work, action has no predictable end; it is simply a beginning. Thus, for Arendt, according to Coulter:

> Labour involves routine ephemeral behaviour to meet basic humans needs; work includes activity by artists or others fabricators to make lasting objects that comprise the artificial world. *Praxis* becomes 'action' and involves collective public dialogue to determine identity and purpose and exercise human freedom and responsibility. (2002: 194/195)

Given the reproductive aspects of the functions of modern day workers – their activities follow the rhythm of machines rather than their own – their participation in the progress of production loses them their status as workers, and they now engage in activity which 'consists primarily in preparation for consumption, the very distinction between means and ends, so highly characteristic of the activities of *homo faber,* simply does not make sense' (Arendt 1958, p. 145).

Given the centrality of work to our being and identity, the chapters in this book discuss the nature of how that being may flourish through workplace learning. Each author considers work-based learning through their own discourse. The narratives

are thus individual in nature reflecting the different approaches these international scholars have to the subject. This necessarily means that some chapters tend to privilege the philosophical over the practical and others address the issue in different ways. This has been encouraged to widen the spectrum of views offered in this international collection of papers. Moreover, it goes someway to recognizing that the workplace is never homogeneous but messy, complex and multilayered. Furthermore, in a collection of works, this size, important concerns that are directly related to learning in the workplace are not covered. Such issues include: inequality, diversity, gender and ageism and appear only on the peripheral of the discussion presented here. This is not intended to marginalize their importance, which is clearly very important, but is a function of the thematic adopted in the book.

The chapters fall naturally into four sections that may be read independently or as part of the collection.

The first section deals directly with the context of the workplace and its learning. Chris Winch's chapter considers the problems of the workplace as a learning environment, both for the individual and as a collective endeavour. He perceptively asks why the abilities necessary for collective action can only be learned in the workplace. His answer is complex and important for policymakers and all those involved in skills and vocational education. Paul Hagers' chapter considers the prominent literature on the practices of work-based learning and argues that work-based learning is a term that covers a diverse, multifaceted and complex range of phenomena. Moreover, these multiple nuances are lost if, as happens not infrequently, 'work-based learning' is viewed as a unitary concept, regardless of its context and form. This theme is also evident in Gerard Lum's discussion on what a learner should expert to learn from both on- and off-the-job training and education. He considers within another bipolar: theory and practice. His cautious approach to the 'practice turn' in vocational education is welcomed, as is his sensitive consideration of the nature of knowledge that both approaches to knowing can reveal. His solution is exposed through the metaphor of sight (compared to the hand in a subsequent chapter), as a resolution of the dichotomy of practice and theory. Theodore Lewis' contribution takes up the notion of tacit learning from within the workplace and how this can enhance individual identity. His historical placement of the understanding of tacit knowledge leads to a contemporary discussion of ownership of this knowledge in the workplace by employers, as capital owners. The research agenda for which this approach argues is important and worthwhile. The final chapter in this section is Geoff Hinchcliffe's consideration of the complex process of making transitions into employment that he clarifies as finding an *occupation* to sustain a person over a good number of years, if not a lifetime. With the help of empirical data, he shows that employers are really concerned about personal ethical qualities of honesty, integrity and trust that are expected at appointment, ahead of any other skill or competence in their graduate recruits. His discussion of the shift from graduate to occupation provides an interesting context for David Beckett's chapter on purposes. David's realism of the messy and rough ground of understanding practices concerns the placement of the purpose of learning in the context of the purpose of the enterprise. His discussion is of the ontological distinctiveness of emergent properties of complex

phenomena that may be marked by unpredictability and inexplicability. With these, he explores the issue of workplace practice and its purpose.

The second section takes a more overtly philosophical approach to the issue and focuses on interpretation of work-based learning, predominately through the work of Aristotle (Marianna Papastephanou), Badiou (Kent den Heyer), Heidegger (Kevin Flint), Dewey (Svend Brinkmann and Lene Tanggaard) and Rorty (Paul Gibbs). Marianna's account of Aristotelian gnoseology helps build through *phronimos* a range of epistemological stances that can be cultivated in on-the-job and off-the-job settings. Although more emphasis is given to this tightly argued reconciliation of theory and practice through experience, it has a certain resonance with Gerard's earlier chapter. Kent explores the work of Alain Badiou to identify possible coordinates in the form of a set of propositions for work-based learning inquiry. This successful exploration of Badiou's mathematically derived approach to philosophy puts to the truth claims that might be made by practitioners on work-based learning. Using Badiou's mathematically inspired network ethicality, Kent urges us to use 'existing capacities to become more than the one we are'. Kevin again addresses knowledge from his own practice. Through the case of Henry, we are helped to see the multiple layers of practices in every workplace; the temporal unfolding of his know-how is revealed, with a number of dimensions of his historicity.

In the first of two chapters addressing issues of pragmatism, Svend and Lene, through the handy use of a Dewey-embodied knower, aim to replace the epistemology of the eye (indeed used dominantly, in this book) with an epistemology of the hand. This approach is useful in contemporary society and work life especially as, according to Dewey, epistemology is itself historical. The authors finally consider how such practices would look had they been built on an epistemology of the hand and conclude the need for communities of creation – or creative communities. The second chapter looks against the contributions of Schiller and then Rorty in a language-based analysis of how we might, to borrow from Dewey and Bentley, 'come to know the known'.

The third and final section turns to the infrequently discussed topic of ethics in work-based learning from a continental (Michalinos Zembylas), African (Thaddeus Metz) and Islamic approach (Mesut Akdere and Jackleen M. Salem). These three chapters add significantly to the distinctive nature of this book. Michalinos draws our attention to and problematizes the methodologies and ethics of work-based research. He uses Foucault's views on power relations, ethics and subjectivity to interrogate the normalizing consequences of conducting research in the context of work-based learning. This continental ethical voice is then juxtaposed with two other perspectives. The first is from Africa, where Thaddeus presents an overview of traditional black African societies. Noting that work-based education (WBE) has been their dominant mode of learning, he articulates a communitarian moral theory grounded in mores that have been salient among sub-Saharan peoples. In the final chapter, Mesut and Jackleen invite us into an Islamic interpretation by first grounding the chapter in an introduction to Islam, secondly offering a perspective into Islamic culture of learning and finally linking these contexts in the arenas of work-based learning. All three of these chapters see virtue and concern in the way in which individuals and organizations engage in structure and informal learning and ask for whom are the benefits of such practices.

The book authors (see their biographies) have produced a work that has a richness, depth and individual style of writing that combines many cultural and intellectual traditions. By leaving these differences within the text and allowing them to reflect the text and the authors' own understanding of work-based learning as inquiry and education, the result is a multidisciplinary consideration of the field of work-based learning.

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Part I

Chapter 2
The Workplace as a Site of Learning: Reflections on the Conceptual Relationship Between Workplace and Learning

Christopher Winch

Introduction: The Concept of a Workplace

The word 'workplace' most readily conjures up the idea of a discrete type of specialised or purpose-built space where work takes place. Of course, this is true of some workplaces, but this is not a necessary feature of a workplace as such. It is better to think of it as the location of a kind of activity called 'work' rather than as a determinate-specific physical location. In order to get clear about the nature of workplaces, we will need to get clear about the ideas of both *location* and *work*. The most natural way to think of a workplace is, as suggested, to think of a discrete space such as a factory, office or farm. Indeed much work takes place in such designated workplaces which are physical, usually purpose-built locations in which it is envisaged that certain kinds of work will take place.

It is worth thinking about the workplace as the location of where work takes place in order to appreciate the complexity of the subject. Much work takes place in spatially highly extended environments such as farms, forests and seas. Some locations are mobile, such as aeroplanes, trains and ships. Some again are temporary, in situations where, for example, the worker is itinerant, visiting different locations in the course of the day or the week. Sometimes again, the workplace is the home or a part of the home. Any workplace has at any given time some physical location. It does not follow that a certain type of work always takes place in some particular physical location (cf Hockey 2009 on the work of an infantryman).

Given this type of complexity in accounting for what is actually meant by a 'workplace', it may be helpful to think about the workplace as the physical and spatial location *where work takes place*. This does not pin down the workplace to a

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particular spatial location but associates it with where the work is actually done and therefore with the person who is actually doing the work. When we conceptualise the workplace in this way, we can see that we cannot really understand the term 'workplace' in any particular instance without taking into account the *task*, *job* or *occupation* that is actually being pursued. In other words, it is helpful to start with the category of work-related activity and then look at the location or locations of that activity in order to understand what the workplace is in particular instances.

The Concept of Work

Once we have identified the workplace as the location of work, it is necessary to get clearer about what is meant by 'work'. It is, notoriously, a concept that is difficult to pin down. For example, the literature which seeks to distinguish between *work* and *leisure* (e.g. White 1997) has traditionally had difficulties with this. An attempt, for example, to define leisure in terms of playfulness or non-seriousness quickly founders on examples of serious leisure activities or playful kinds of work. One can, of course, attempt to define 'work' in terms of 'employment', but the problems here are again obvious, as there are all kinds of non-remunerated activities which clearly fall within everyday conceptions of work, such as child-rearing, home maintenance and care for relatives. There are also forms of employment which cannot be adequately characterised as 'work' – think of sinecures and 'make-work' schemes.

Another way of approaching the issue could be to take the concept of *human agency* as the starting point and to seek to identify those aspects of human agency which we are inclined to talk of as 'work', bearing in mind that it may be simply unrealistic to expect a watertight definition of work which neatly excludes all nonwork activities. In other words, we are looking for a working definition which will satisfy our present purpose of trying to get clear about what a workplace is. For this objective it may be helpful to think of the kind of agency that we call work to be associated with paid employment or 'earning one's living' usually in the modern capitalist sense of earning a wage or salary, a commission, a consultancy fee or whatever. See Cohen (2010) for an exploration of the relationships between workplace mobility and the work-life boundary. It is possible to do this while at the same time acknowledging that much of what we count as work may well be done without the expectation of monetary remuneration. Some forms of work which are not performed for direct monetary remuneration raise particular issues which it is largely beyond our scope to go into here.

Constraints on the Workplace as a Learning Environment

The workplace, on this account, is the site of agency deployed for the purpose of remuneration of the employee. The intended purpose of such agency is the production of goods and services for an employer or oneself with a view to remuneration.

It would be fair to say that this is the *primary purpose* of a workplace and that all other purposes are secondary. This is relatively uncontroversial, but it raises the question as to what kinds of *secondary purposes* might be admitted. For our enquiry, one important secondary purpose would be learning in order to be able to work or to work more effectively. It is of course true that a worker, in the course of working, will very often, and quite unavoidably, be learning and will, as a result, be able to subsequently work better. A lot of incremental improvement in processes is driven by workers learning of better and more effective ways of carrying out their duties through the actual commission of those duties themselves.

But the kind of situation with which we are particularly interested is the one where an individual in the workplace is not there for working *as his or her own primary purpose* even though *work is normally the primary purpose of those who are in the workplace*. This is a common situation and may involve a large variety of different cases, which range from someone taking a short piece of training in the use of a piece of equipment, to an apprentice who has not yet acquired the ability to play a meaningful role as an effective worker. The role of the apprentice is an ambiguous one, oscillating between the requirement to play a productive role and the requirement to learn how to do so. The tensions in this relationship are reflected in the varying legal and regulatory frameworks that define apprenticeship in different countries, ranging from a largely employment status in England to one which has a strong element of that of learner in Switzerland (Ryan 2011). Suffice it to say that the tension is played out in different ways: the different and sometimes conflicting priorities of employer and apprentice, the immediate demands of the workplace and the learning needs of the apprentice and the demands of *off* the workplace learning and those of direct workplace learning.

The role of apprentices is bound to embody such tensions to varying degrees, and good apprenticeship programmes attempt to reconcile the role of learner and worker in a way that is mutually productive for the employer and other employees, as well as for the apprentice himself or herself.

There are two important points to be made about the apprentice as workplace learner. First of all, the learning that takes place has to be ultimately instantiated in workplace performance, whether it be through purely 'on-the-job' training or through an articulated programme that includes a theoretical and simulatory element prior to and then interwoven with workplace engagement. Secondly, the productive role of the apprentice is expected to increase as ability and familiarity with the labour process grow, and this is usually reflected in the level of remuneration accorded to apprentices as they progress through their programmes to the point where they are able to operate as effective, relatively independent workers in their own right (Foreman-Peck 2004). Operating effectively in the workplace is, therefore, a necessary part of learning in the workplace for an apprentice.

But the workplace is also subject to serious constraints as a site of learning (apart from the contingent learning mentioned earlier). As it is organised for production or service provision, it is not organised primarily for learning, so that any learning that takes place in it has got to cope with such constraints, which may well be inimical to gradual acquisition of the know-how necessary to operate effectively. Thus an

apprentice construction worker needs to acquire a range of skills (such as laying bricks) which presuppose that a *technique* is mastered. These skills can be acquired in a simulatory environment such as a large hall in a college of further education. However, the ability to be an effective bricklayer presupposes a great deal more than the mastery of a technique. Bricklayers needs to be able to work in varying conditions of height and weather with a variety of colleagues, taking account of the exigencies of time and cost set out in contracts. The ability to do this requires much more than the mastery of bricklaying technique and involves elements of experience, social awareness and personal character that are difficult to acquire outside workplace conditions. In other words, workplace learning has to be a component of becoming a bricklayer, irrespective of the initial qualification that is awarded. This is one reason why workplace learning is such a valued element of vocational education.

Why Some Learning Has to Take Place in the Workplace

The workplace thus has certain essential characteristics for some kinds of learning. By 'learning' is meant here the acquisition of propositional or practical knowledge, and it is primarily the latter that we are concerned with. The object of a programme of vocational education or of a sequence of training is to get someone to be able to perform in workplace conditions. It is worth delving deeper into just what this involves. To know how to do something involves, in the normal case, *being able to perform* the appropriate actions which characterise the task or project involved *in appropriate conditions.* The two conditions italicised are extremely important. In the first instance, we expect not just the ability to say or to show what is involved in performing the action but, minimally, the ability to act to a threshold level of competence. An apprentice bricklayer needs to be able to lay bricks with reasonable accuracy and in conformity to a plan. However, this is a necessary although not sufficient condition of someone's knowing how to do something and the second condition is of particular significance for our enquiry.

In the context of work, the appropriate conditions for acting are those of the workplace. One cannot be said to know how to do something if one cannot do it in the conditions which are the *normal expectations* for someone carrying out that type of action (Winch 2010a). Thus, it would not be sufficient for a bricklayer to have mastered a technique of bricklaying in a college environment in order to for it to be said that he or she is capable of bricklaying. He or she would be expected to be able to apply that technique in the conditions obtaining within the workplace. As we have seen, these conditions may impose particular demands on someone who has mastered a technique but who has not yet learned how to apply it in the appropriate conditions. An important general point that arises from this reflection is that learning how to do something involves more than the mastery of a technique (although the achievement of such mastery is often itself a major accomplishment and should not be belittled) but critically involves the ability to operate in appropriate, often demanding conditions. It is not enough that the bricklayer knows the appropriate

circumstances in which to lay bricks, it is that he or she is able to lay bricks in the kinds of circumstances in which bricklaying is the employment for which one has received a qualification. There is a significant sense in which a qualification to do X is not a criterion for being able to do X if it does not constitute a guarantee that the holder of the qualification can actually do X *in the circumstances for which the qualification in X is intended*. In this important sense, mastery of the technique necessary for doing X is not equivalent to knowing how to do X.

Operational Conditions and the Workplace

What can we usefully say in general terms about the nature of these conditions? It is worth looking again at the kind of constraints that a professional bricklayer would be operating under while carrying out a commercial contract on a building site. Mastery of appropriate techniques would clearly be a vital consideration, but we also need to consider the physical, social and commercial environment in which the bricklayer is operating.

To take the first, it is quite likely that the physical characteristics of a construction site will be demanding. The bricklayer will be expected to work in a variety of weather conditions which could include seriously cold, hot, windy or wet weather, any of which would make the physical actions necessary to lay bricks more difficult to carry out. Another important constraint of the construction site would be connected with the physical constraints of the site, including areas of danger and the need to operate at heights. These constraints may, of course, often be associated with adverse weather conditions, increasing the demands of courage, determination and attention required of the bricklayer.

The bricklayer has also got to operate in a complex *social* environment which involves working with bricklaying colleagues, colleagues in other, related occupations, with foremen and managers and, possibly, with apprentices. Such relationships need to be managed within the particular constraints of the *commercial* environment in which his or her work is taking place. This commercial environment will involve significant constraints of the timescale in which the work has to be done, very often co-ordinating it with the work of colleagues involved in carpentry or shuttering, for example, which may impose a particular pace on the work required. The financial constraints of the project will also impose the need to care about such matters as waste and the appropriate use of materials. Finally, there is the nature of the bricklayer's own personal financial remuneration to be considered. If, for example, he or she is being paid per number of bricks laid or artefact constructed to a certain quality level, this imposes considerations of speed and accuracy on the way in which the bricklayer's own work is paced.

We might summarise these *operational conditions* that are obtained in the workplace in the following ways:

(a) Personal responsibility for oneself and others
(b) Lack of complete control over the environment in which action takes place

(c) The moral seriousness of the consequences of action in terms of one's welfare and that of others
(d) The immediacy of the need for decision and action (Winch 2010b)

It is evident that operational conditions do, by their very nature, make more demands on individuals than artificial or simulatory conditions. Such conditions may be very valuable in VET in allowing individuals to master techniques without having to worry about operational constraints. However, they can only be a preliminary to insertion into the workplace if they are to result in vocational know-how. Even here, it is not advisable to insert someone, even someone who has mastered the appropriate technique, into such an operational environment without much care and forethought. Traditionally, apprenticeship involved 'doing it all' in the workplace, including the learning and mastery of technique. However, the transition to being a mature operative in the working environment was usually carefully managed.

Workplaces often contain valuable material and equipment, and both physical and financial damage can be caused by an inexperienced worker. In addition, an inexperienced worker may well put himself and fellow workers in peril if not properly supervised. For these reasons, novice learning in the workplace needs to be carefully managed. Ideally, the programme of learning that an apprentice undertakes should also be as structured as possible so that not only is the learning and teaching available at each stage of an optimal nature but so that issues of security and safety are addressed at the same time. One critical issue, relatively neglected in the UK context, is that workplace performance is often assessed as if it is stand-alone. If an individual is able to perform a task, then this is taken to be sufficient proof that he or she is able to perform all tasks of this type.

This is a dangerous assumption except in those relatively rare contexts where individual tokens of a task-type are nearly identical. One might expect to find this in workplaces that rely on very regular and homogenised processes which vary little. In such situations, the scope for judgement and discretion ranges from the limited to the non-existent. In these situations, beyond learning the relevant technique, the scope for experiential learning and the development of discretion and judgement have little role to play. For those workplaces to which these considerations do not apply however, the notion of workplace learning is more complex. We need to distinguish between at least two kinds of situation, which are themselves most likely to occur together. The first is that knowledge has to be applied in order for there to be successful practice. The second is that there is considerable contextual variation in the individual tasks within a task-type.

Taking the first point, it is not good inductive reasoning to conclude from the fact that an individual has successfully performed one task of a task-type, even in operational conditions, that he or she has achieved mastery of that task-type. The only circumstance in which this could reasonably be maintained is when one is relying on a suppressed premise to the effect that the knowledge required to perform task T successfully is the same knowledge as is required to perform T1……..Tn (cf. Rescher 1980, Chapter 1), and this, in many cases, is a heroic assumption. T1 may involve selection of tool G for its successful execution, while T8 may require tool H.

The worker may well need to make a judgement about which tool is required, based on his or her knowledge of the properties of the artefact or material on which he is working and on making an appropriate judgement about which tool to select at that point (Prais 1991). The best way to develop such knowledge when it is quite extensive is to learn it away from the workplace.

The second case involves the task-type T involving tasks T1……Tn being exercised in a variety of different contexts in which individual judgements need to be made about the appropriate course of action. Such judgements may involve the bringing to bear of knowledge on practice as in the previous case. However, in conditions of considerable contextual variation (different individuals, different kinds of problems, different physical locations, etc.), finely grained judgements will need to be made about the appropriate course of action. This is true of traditional craftwork such as is described in Sturt (1923), but it is also true of the modern 'knowledge intensive' workplace in which considerations of the first kind also have an important role to play in the formation of judgement and action. And, in these second cases, where the range of tasks differs significantly from context to context within the task-type, that it will be a very weak inductive argument to assume that successful performance of T1 will be a clear guide to performance in the range of relevant tasks. The induction becomes even more problematic when considerations of the first kind co-occur, as is most likely in modern, complex, workplaces. It follows, therefore, that in such kinds of work, individuals will need a very wide variety of contextual experience before an assessor can assert, with confidence, that the individual can perform that type of task. The workplace will then need to be configured in such a way that this variety of individual tasks will be available.

These considerations tell us something else that is important about workplaces, namely, that they are subject to change. They do not change merely in the sense that everything changes over the course of time, but they change both according to the needs of the work that is performed in them and also due to the inevitable changes in personnel, equipment, buildings and location that can be expected during the course of a reasonably extended period of employment. Someone who knows how to perform in the workplace perforce knows how cope with such change. The exception will be where the change is sufficiently drastic to necessitate a period of in-service VET.

We may then conclude this part of the discussion by noting first the *indispensability* of learning in the workplace for many different kinds of complex labour process. Second, the workplace needs to have sufficient variety and, maybe, sufficient opportunities, for the exercise of judgement in action for the range of relevant tasks within a task-type to be successfully sampled. Third, successful workplace learning needs to be articulated, both with *classroom work* in which the relevant knowledge base relating to the occupation can be developed and with appropriate *simulatory environments* in which technique and judgement can be exercised without excessive exposure to the exigencies of the operational conditions of the workplace. Fourth, learning within the workplace needs to be carefully structured in order for it to be most profitable and also for it to be done without damage to either the learner, his colleagues or the enterprise itself. Fifth, it goes without saying

that the successful devising of a curriculum and of appropriate pedagogic methods for such complex programmes of vocational learning requires the greatest care and attention.

Collective Knowledge in the Workplace

So far, we have written as if learning in the workplace was purely an affair of the learning of individuals within the workplace. However, workplaces are often complex social environments with complex divisions of labour and complex collective co-ordinated activities that need to be successfully practised by all the individuals involved. Very often, the knowledge required for successful work is held collectively – no one individual possesses it all. But even if the knowledge required is aggregatively sufficient for successful work, if it is not shared and used in an appropriate form by the different individuals and teams within a work situation, then it is inert and cannot be profitably used (cf Boreham 2004). If a task or project T requires knowledge of how to F, G, H and I to do it and one individual has knowledge of F, another knowledge of G, etc., then unless they are able to actually *communicate* and *co-ordinate* with one another, then it will not be possible to put their knowledge to good use to carry out that task and project. This suggests that, in addition to whatever abilities they need to do carry out tasks F, G, H and I, they will not be sufficient to accomplish T without the ability to *act collectively* so as to deploy their knowledge jointly in the accomplishment of T.

This may mean nothing more than that one of them, the *team leader* has the authority and ability to order each individual to carry out a particular task and that the individual then obeys. However, this is unlikely except in the simplest situations, for it may well be necessary for each team member to co-operate with others in the accomplishment of the main task and they will need to do this on an ongoing basis, adjusting their actions if necessary and maybe discussing what needs to be done in order to proceed in the light of a problem encountered. This is not an uncommon situation in many workplaces, particularly those characterised by complexity and fluidity in the projects that need to be undertaken. In order for the know-how of each individual to be used in the accomplishment of T, it will be necessary for each of them to have the ability to *co-ordinate, communicate* and *co-operate* effectively. In the nature of such activities, these cannot be learned individually; they must be practised alongside those with whom one is expected to co-operate, etc.

Does this mean that these abilities necessary for collective action can only be learned in the workplace? It is unlikely that they will be fully acquired without some learning in the workplace, but, on the other hand, it is not clear that the workplace in which T is to be carried out is the sole location in which they can be learned. Other workplaces, more or less similar may be relevant as may, to an extent, appropriate simulatory environments. It is worth bearing in mind that such activities as co-operating, communicating and co-ordinating are not *skills* which can be manifested in the performance of one particular type of task. They are ways of performing particular kinds of

action like *giving instructions* and *discussing specific types of problems* that become co-operation or co-ordination due to the ways in which they are carried out (Ryle 1979). There may be more than one different way of doing them, and different individuals may be more effective doing them one way rather than another (e.g. communicating orally rather than in a written form), and they need to be done with the appropriate level of seriousness and intention in order for them to *count* as acts of co-ordination, etc. Thus, the abilities to practise them successfully need to be practised in a suitable variety of conditions and will need to be practised at least some of the time in operational conditions for their acquisition to be secure. In addition, particular work processes in particular work places, carried out with particular colleagues, will need to be carried out with those colleagues in order to ensure that team working is effective.

IVET and CVET

Thus far, the discussion has not differentiated between initial vocational education and training (IVET) and continuing vocational education and training (CVET). However, each raises different issues in relation to learning in the workplace.

We have already seen how IVET should preferably be conducted through a mixture of workplace and associated sites and that a considerable degree of workplace learning is essential for the completion of an IVET programme. What role does the workplace have in CVET? In one sense, it has a preponderant role, in that even as a secondary aspect of an agent's working activity, learning within the work environment takes place, including acquisition of the important second order abilities connected with the social aspect of work that we have just been looking at. But it is also true to say that even in the case of more structured forms of CVET that lead to an advanced qualification, the workplace has a central role in learning. This is true, for example, of Germany where there is a clear career progression from apprentice to journeyman to Meister (master), sometimes passing through intermediate stages such as the *Polier* or senior foreman (Syben 2008).

In what follows, we will look at the formation of the *Polier* as a case study of how the workplace figures in CVET as a critical element of learning. The *Polier* has to undertake extensive organisational work but on the basis of already very solid work experience of at least several years on a construction site, which will include some low level managerial responsibility. Examination of the duties of the *Polier* makes it clear why the work demands extensive experience of the procedures on a building site as well as extensive theoretically grounded practical second-order activities such as planning, organising, adjusting, etc., not to mention extensive technical knowledge.

Syben's comparative analysis of middle management training and responsibilities within the construction industry in Hungary and Germany illustrates this point:

> While the *Polier* undertakes practical and temporal preparations for the execution of the work for the next 14 days within the framework of the predetermined plans, the primary expectation of him is that he will check the planning undertaken by the engineers in the office with respect to its feasibility on the building site and will implement it in practice....

> …While the *Polier* in Germany also learns these skills to a certain extent, his competence is focused on the application of know-how acquired during his work history. In Hungary, the *művezető* receives framework specifications from the site manager, who is responsible for all the construction work, within which he independently undertakes practical and temporal planning for part of the structure.
>
> Planning duties of this type are not carried out by a *Polier* in Germany. While the *Polier* undertakes practical and temporal preparations for the execution of the work for the next 14 days within the framework of the predetermined plans, the primary expectation of him is that he will check the planning undertaken by the engineers in the office with respect to its feasibility on the building site and will implement it in practice. (Syben op.cit. p. 20)

Thus, the kind of CVET undertaken by the *Polier* is firmly grounded in his or her expertise in the construction workplace, and the theoretical knowledge involved in his responsibilities is centred on immediate planning and preparation for direct construction activity. The planning and preparation, therefore, are concerned with the interpretation, detailed specification, modification and implementation of larger scale plans in the light of his knowledge and experience of workplace conditions, including his knowledge of how to achieve effective teamwork on a construction site. One can see in this comparison the different roles that learning in a workplace environment play in these two different kinds of management role, one which involves detailed implementation of high-level plans (the *művezető*), the other which involves making possible, through workplace organisation, the realisation of these plans (the *Polier*).

Towards the Development of Professional Agency Through the Workplace as a Site of Learning

The workplace is the primary site of professional agency. It does not have to be unitary, either spatially or temporally, but its defining characteristic is precisely that it is where work is carried out. We have seen that it is difficult to give a neat definition of 'work' that would clearly distinguish it in every case from nonwork. However, this is not necessary if we can locate, in the site of any particular agency, the presence of the 'operational conditions' that are the characteristics of the kinds of work that characterise employment in societies such as ours. They may also be present to some degree in non-employment activities, but that is not our primary concern. The workplace is thus inevitably in part a site of workplace learning as it is only through some participation in active agency in operational conditions that one is able to acquire the ability to act effectively in the workplace. This point applies to initial as well as continuing vocational education, and it particularly applies to workplaces where collective action based on collectively held knowledge is necessary for effective action.

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Chapter 3
The Role of On-the-Job and Off-the-Job Provision in Vocational Education and Training

Gerard Lum

There are few, if any, occupations today, the preparation for which will not involve two distinct modes of provision, what are often referred to colloquially as on-the-job and off-the-job training. With even the most menial occupations, learning on-the-job will invariably be supplemented by training that takes place at some remove from the point of work, if only something by way of an induction for new employees, perhaps something relating to company procedures, health and safety, and so on. However, for a good many occupations, and certainly those that are more demanding in terms of skills and expertise, off-the-job provision is likely to be a good deal more extensive and often such as to require the learner to spend prolonged periods away from the workplace in the classroom or the lecture theatre.

The question I want to consider here is what it is we should expect the learner to gain from each of these two modes of provision. The stock response to this question might be that one form of provision supplies the theory and the other provides the practice. Yet it is far from clear what is meant by 'theory' and 'practice' here. It is of little help to say that theory is that which is obtained off-the-job and practice is that which happens to be learnt on-the-job; even if we were happy to overlook the tautology, we might wish to concede that some elements of practice might be learnt in the classroom and some theoretical aspects learnt in the workplace. A more likely consensus is that there are two different kinds of knowledge, theory and practice, and whilst one tends to be more amenable to being learnt off-the-job, the other tends to be more readily learnt on-the-job.

The assumption that being capable in an occupation involves possessing two kinds of knowledge runs through many of the procedures now prevalent in vocational education and training (VET) including those related to assessment – we

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might think, for example, of the distinction that is made between 'performance criteria' and 'underpinning knowledge' in the UK's system of vocational qualifications. Indeed, the distinction between theoretical and practical reasoning has a long and distinguished provenance that can be traced all the way back to the ancient Greeks. It is a distinction embedded in our very language, for people will often speak of 'the theory' and 'the practice' of things or distinguish between 'knowing how' and 'knowing that' when trying to articulate what it is that someone knows. Yet I want to suggest that this dichotomous conception of knowledge, a conception that has so long dominated thinking about vocational education and training, is fundamentally inimical to our having any a clear understanding of what a vocational preparation should consist of and the respective parts played in that preparation by on-the-job and off-the-job provision.

One fairly obvious difficulty that arises from conceiving of occupational knowledge in terms of theory and practice is that there are likely to be markedly different views as to the relative importance of each. Whilst some will be inclined to see theoretical knowledge as the very wellspring of intelligent action, and performance that is insufficiently supported by theory as little more than brute behaviour, others will be quick to insist that the first priority of a vocational preparation should be to promote the facility for action, the ability to do the job, and that to allow theory to be elevated to anything more than handmaiden to practice is to slide inexorably into curricular irrelevance. Both tendencies are to be found at work in current arrangements in the UK. The widespread shift towards so-called competence-based education and training over the last three decades has meant that for a good many occupations, particularly the trade or craft occupations, the emphasis is now firmly on practice and learning on-the-job. With some of these occupations, formal off-the-job training in the college has given way to what could best be described as outreach provision, with college staff visiting trainees in the workplace to deliver (quite literally) learning materials and guide trainees in organising 'portfolios of evidence' for competence-based assessment.

Of course this shift towards practice-based learning has not been without its critics, and commentators have not been slow in complaining about the behaviourist underpinnings of the competence approach and its apparent neglect of knowledge and understanding (Ashworth and Saxton 1990; Marshall 1991; Hodkinson 1992; Hyland 1994, Lum 1999). With some occupations, however, it is possible to see quite the opposite tendency. Nursing is a case in point: changed in the 1990s into a degree-level occupation, nurse education is now located as much in the university as it is in the hospital ward. The critical complaint here is that the resulting provision is 'just too academic' (Smyth 2011, p. 4). The chief executive of the Royal College of Nursing has claimed that new nurses are 'simply not up to the mark' and a leading NHS hospital trust has announced recently that it is to abandon university provision and revert to the in-house training that was the norm before nursing became a degree-level occupation, offering instead a 'degree-level apprenticeship' (*ibid.*). There is a telling ambivalence here towards the idea of a degree: on the one hand, an apparent aversion towards the idea of the theoretical and the academic and, on the other, a desire to retain some suggestion of a 'degree-level' preparation. And this

goes some way towards explaining how it is possible, in the case of teacher training, for the official ambition for teaching to become a masters-level occupation to coexist with arrangements that have reduced the role of the theoretical and the academic in favour of learning on-the-job. The express intention in introducing a new Masters in Teaching and Learning was to give teachers 'extra skills'(Ed Balls cited in Lipsett 2008) – the term 'skills' clearly being used to emphasise the *practical* as opposed to the theoretical, a sentiment echoed by the Deputy Director of the Institute of Education who is reported as saying of the MTL that it 'needs to be practical and focused on making people the best teachers and not filling their heads full of educational theory' (*ibid*.).

Never far away from considerations of this kind are matters relating to status and prestige. Perhaps only time will tell whether degrees stripped of theoretical content will have the cachet normally associated with academic qualifications, it being a moot point whether it is the association with a 'degree' or the association with 'theory' that enhances the status of an occupation. There are surely reasons to question the wisdom of allowing the vocational curriculum to be influenced by the emotive issue of status. Certainly the theoretical has long been regarded as having pre-eminence over the practical, again part of that same tradition that can be traced back to the ancient Greeks, with both Plato and Aristotle giving pride of place to theory. Yet this tradition also has it that the value of theory consists precisely in its *lack* of practical application. As Aristotle (1975) puts it, to know theory is to 'know things that are remarkable, admirable, difficult, and divine, but *useless*' (*Nicomachean Ethics*, §1141b6, my emphasis). Indeed, it is to this tradition that we can trace so many of the dualisms which have so long beleaguered education and which are, as John Dewey (1966) rightly recognised, 'deeply entangled … with the whole subject of vocational education' (p. 307).

Given the level of dissension currently revolving around the notions of theory and practice, one could be forgiven for thinking that we have lost all sense of what a vocational preparation should consist of and what we should properly expect off-the-job and on-the-job training to provide. For some, what is needed is some form of 'integration' (UKCC 1999, p. 6) of theory and practice, and some will speak of a 'theory-practice gap' (cf. Gallagher 2004) the suggestion being that the essential task is one of somehow closing or bridging this gap. Yet it seems to me that the main difficulty here is that it is far from clear what exactly is meant by 'theory' and 'practice', for these words can often be seen to be used to denote very different things. Sometimes they are used to indicate differences in what I have elsewhere called the *antecedent* conditions of learning (Lum 2007), that is, they are used to distinguish differences in types of provision such as when we want to differentiate learning from a text as opposed to learning from a practical exercise. Of course it is not unreasonable that we should sometimes wish to make this kind of distinction. Second, these same terms will often be used to denote differences in what we might call the *consequent* conditions of learning, that is, differences in the way a person's understanding manifests itself, such as when we say that someone knows the theory but not the practice of something, or vice versa. And again, it is entirely reasonable that we should sometimes want to make this kind of distinction for there is clearly a

difference between being able to recite facts about cycling and being able to ride a bicycle. Our referring to theory or practice in such circumstances allows us to convey more exactly the difference between knowing one thing and knowing another.

The first difficulty arises when these two uses are conflated, and it is assumed that to learn in a theoretical mode is necessarily to learn 'theory' or to learn in a practical mode is necessarily to learn 'practice'. The problem is that it would be entirely feasible for a person to come to hold some 'theoretical' proposition as a consequence of undertaking a practical exercise or to be able to carry out a practical task as a result of being provided with certain theoretical content, for example, facts, rules or instructions. In short, the fact of the antecedent conditions being deemed theoretical or practical may have little or no bearing on whether the consequent conditions turn out to be theoretical or practical. An added difficulty is that neither the antecedent nor the consequential conditions will always be amenable to being differentiated in this way. It might not be entirely clear whether the writing of an essay, for example, should properly be characterised as theoretical or practical – although those intent on applying the distinction might insist on breaking the activity down to constituent parts seemingly more amenable to such characterisation. But notice also how such a case may also render the distinction between antecedent and consequent conditions less clear, the activity being potentially, to put it in crude terms, both the input *and* the output of learning.

A different kind of confusion arises when the theory-practice distinction is used to distinguish *de facto* provision from the substantive knowledge requirements of an occupation. On this usage, 'theory' refers to the off-the-job provision (i.e. antecedent conditions which on the former view might be deemed either theoretical or practical) and 'practice' means acting in an occupational capacity, as in the phrase 'professional practice'. The phrase 'theory-practice gap' may thus be used to denote a perceived discrepancy between training provision and training need. And again, choice of terminology aside, it is not at all unreasonable that we should sometimes want to make this kind of distinction. Yet this is not the only meaning associated with the phrase 'theory-practice gap' for it will often be taken to imply a discrepancy of an epistemological kind, a presumed variance between two fundamentally different kinds of knowledge. And this brings us to the nub of the entire issue. For in and amongst these diverse and potentially plausible uses of the theory-practice distinction is usually to be found some more or less explicit epistemological assumption to the effect that these terms denote two fundamentally different kinds of knowledge. At its most naive, the assumption might be that a person who learns as a result of provision deemed to be theoretical and whose learning consequently manifests itself in a guise that is similarly deemed theoretical must accordingly possess 'theoretical knowledge'. And the exact same assumption of a continuum from antecedent condition through knowledgeable state to consequent condition will be made for learning deemed to be 'practical'. The difficulty is that whatever plausibility the distinction might have when applied to the antecedent and consequent conditions of knowing, it is a very different thing to claim that knowledgeable states can themselves be categorised in this way.

Now there are those who would take issue with the distinction being drawn here between knowledgeable states and their consequent conditions. Those with behaviourist inclinations would contest the distinction on ontological or logical grounds, questioning if not the existence of such states then certainly our facility to make meaningful statements about them. It is not my purpose here to mount a comprehensive assault upon behaviourism; suffice it to say that our being able to acknowledge the possibility of identical utterances or behaviours emanating from qualitatively different states of mind – whatever ontological status we wish to ascribe to those states – would seem indispensible to any meaningful educational endeavour. And since what a person will know as a result of any particular antecedent condition will vary from person to person, it seems reasonable to conclude that any knowledgeable state is radically underdetermined by its antecedent and consequent conditions.

The crucial mistake, then, is to assume that we can non-problematically employ the terms 'theory' and 'practice' to denote two fundamentally different kinds of knowing. And it is this mistake, I want to suggest, that ultimately prevents us from getting clear about what it is on-the-job and off-the-job provision should properly contribute to occupational capability. But before suggesting an alternative to this dichotomous way of thinking, it will be useful to get clearer about why the theory-practice dichotomy is so inimical to having a coherent understanding of occupational knowledge.

The Disappearing Knowledge Trick

Ask anyone to specify the knowledge requirements of an occupation and they will almost invariably set about producing two lists: the things a person would be required to do and the things they would be required to know, the one couched in terms of actions or performances and the other couched in terms of facts, propositions, rules and the like – in other words, they will instinctively gravitate to an account of the consequent conditions of knowledge couched in terms of theory and practice. It is likely, however, that they may come to recognise the need to include something that does not fit easily into either of these categories, a kind of understanding that does not seem to cash out satisfactorily in terms of either theory or practice. It is not insignificant that when employers attempt to explain the shortcomings of training provision, they often struggle to articulate what it is exactly that trainees lack and end up having recourse to such vague notions as being 'streetwise' or having the ability to deal with 'difficult situations' (NHS Confederation cited in UKCC 1999, pp. 40–41). It goes without saying that terms such as these and, indeed, terms such as 'understanding' are a source of immense frustration to those intent on couching the curriculum in terms of precise outcomes, and resort to such terms will often be regarded as a failure to be sufficiently precise in the use of language. But the crucial issue here is not one of communication but ontology, for there is fundamental distinction between, on the one hand, knowledgeable states and, on the other,

the performances and utterances which constitute the consequent conditions of those states. Whilst the latter hold the obvious attraction for curriculum designers of being more amenable to precise specification and measurement, the problem is that a curriculum couched in these terms will inevitably fall short of representing the substantive *knowledge* requirements of an occupation.

Our being alert to this distinction allows us to recognise the unwitting sleight of hand by which priority might often be afforded one form of provision over the other. Those who are inclined to give priority to 'theoretical' provision will highlight the shortcomings of a preparation centred on perfunctory 'can do's' and will stress the importance of knowledge over unthinking mechanical behaviour. Conversely, those who would prioritise 'practical' provision will make much of the fact that successful performance rarely requires the manipulation of theoretical propositions, rules, axioms, and the like. With Gilbert Ryle (1949), they will remind us that our acting to save a drowning man does not require us to first mull over the relevant moral principles – we simply act. Accordingly, on this view, there is little point in people learning 'bucketfuls of facts' (Wolf 1989, p. 41) or filling their heads with 'theory'.

What both sides have in common is that they each attempt to dismiss the other by characterising either theory or practice *not* as knowledge but as merely the consequent conditions of knowledge. Certainly 'practice' conceived as perfunctory behaviour falls far short of how we ordinarily conceive of occupational expertise. And if 'theory' means nothing more than the facility to manipulate propositions, rules or axioms, then this similarly would be at some remove from how we ordinarily think of occupational capability. Having portrayed either theory or practice in sufficiently impoverished terms by giving an account in terms of the consequent conditions of knowledge, the strategy is to then characterise its opposite as knowledge proper. On one side, theoretical knowledge will be characterised as the indispensable source of intelligent action, and on the other, practical knowledge will be represented as embodied, purposeful agency. Those who adopt this kind of strategy are patently unaware of the crucial ontological manoeuvre they execute in order to give priority to either theory or practice. However, the incoherence of this way of thinking can be illustrated by showing that by using the very same logic, it is possible to demonstrate that an occupation which by any other measure would obviously require considerable expertise would appear to have no knowledge requirements whatsoever. Consider the following not uncommon scenario:

> A factory production line is in full swing when suddenly the machines grind to a halt. Alarm bells ring and warning lights flash; a maintenance technician arrives and makes his way to one of a hundred electrical control panels each interconnected perhaps with several miles of cabling. He opens the control panel, takes a screwdriver from his pocket and makes a small adjustment to just one of several hundred components. Closing the control panel he presses some buttons and the production line bursts into life. The question is, how is it possible to account for what the technician knows? His performance did not require the conscious manipulation of propositions or facts – and neither did it require any particular physical dexterity. (Lum 2009, p. 56)

It seems indisputable that here is an example of a kind of expertise that is much sought after by employers and one that would require no small amount of training.

Yet if we had to characterise this expertise in terms of theory and practice, we *could* conclude that the knowledge requirements of this particular occupation were negligible. This is by no means a unique or special case. Indeed, it would seem difficult if not impossible to give a sufficient account of the knowledge requirements of the great majority of occupations if obliged to couch those requirements in terms of the theoretically and practically oriented consequent conditions of knowledge. The crucial point here is that by using this kind of analysis, the knowledge requirements of almost any occupation could be made to 'disappear'.

The problem with conceiving of knowledge in terms of 'theory' and 'practice', then, is that it leads us to give an account not of knowledge but of knowledge's consequent conditions. What we need, I want to suggest, is a way of breaking free of this dichotomous conception of knowledge. The problem is that in so doing, we come into conflict with a way of thinking that dates back more than two millennia. Modern day accounts of occupational expertise still hark back to these long established categories of thought – consider, for example, Joseph Dunne's (1993) scholarly but steadfastly Aristotelian account of professional knowledge. What is often overlooked in such accounts is the extent to which these ways of thinking about knowledge and the array of dichotomies they generate – theory/practice, education/training, liberal/vocational, white-collar/blue-collar – are inextricably bound up with distinctions of social class and 'the conservation of the aristocratic ideals of the past' (Dewey 1966, p. 319), distinctions and ideals that clearly persist to this day. And it is of no small significance that Plato and Aristotle, both in different ways part authors of this bifurcated conception of knowledge, were themselves members of an aristocracy.

Not all writers in antiquity, however, were as disinterested in vocational matters or as dismissive of occupational expertise. One such exception was Marcus Vitruvius Pollio, a Roman architect and civil engineer who flourished in the first century B.C. and whose *Ten Books on Architecture* was to become the most influential work on architecture in history. In the very first section of this classic text, under the title 'The Education of the Architect', Vitruvius outlines what he conceives as being the kind of knowledge necessary for the practice of architecture:

> The architect should be equipped with knowledge of many branches of study and varied kinds of learning, for it is by his judgement that all work done by the other arts is put to the test. This knowledge is the child of theory and practice. Practice is the continuous and regular exercise of employment where manual work is done with any necessary material according to the design of a drawing. Theory, on the other hand, is the ability to demonstrate and explain the productions of dexterity on the principles of proportion. (Vitruvius 1960, p. 5)

Now it should be stressed that Vitruvius is not here concerned to provide an in-depth epistemological account of occupational expertise. What he does offer us, however, is a view of occupational knowledge informed by first-hand experience of acting in a professional capacity. As might be expected, Vitruvius regards it as vital that the would-be architect should have the benefit of learning both from 'scholarship' (ibid.) and from 'regular exercise of employment where manual work is done' – and he thereby delineates the antecedent conditions of knowledge in terms of theory and practice. And he would similarly seem to delineate the consequent conditions of

knowledge, for the 'regular exercise of employment' and the 'ability to demonstrate and explain…' are what he would presumably expect of the trainee as a consequence of coming to have the requisite knowledge. But it is his description of knowledge as 'the child of theory and practice' that is most telling here, for it indicates that the knowledge that is required is in some sense *distinct* from theory and practice, something we might expect to *result* from theoretically and practically oriented modes of provision but that is itself neither theory or practice, nor simply an amalgam of the two.

In subsequent passages, Vitruvius goes on to outline the different areas in which the architect must be educated: certainly he will need to have expertise in draughtsmanship and geometry, but also 'a wide knowledge of history' (p. 6) and an understanding of such things as arithmetic, optics, music, medicine, law, astronomy and natural philosophy. What is required, we are told, is not necessarily the in-depth knowledge someone would need if they hoped to 'excel' (p. 11) in one of these areas but rather a 'liberal education (which) forms a single body made up of these members' (p. 10–11). This education should certainly not be thought of as 'useless', akin to what Bernard Williams once called the 'leather blotter from Harrods' conception of an education in the arts or humanities: 'something to give people when no *useful* gift can be found' (quoted in Warnock 1989, p. 34). Indeed, Vitruvius goes on to give entirely plausible and convincing reasons as to *why* a knowledge of these subjects is necessary for the would-be architect, giving instances of their practical relevance and demonstrating how a knowledge of each and every one these 'many branches of study' will provide the architect with the 'judgement' necessary to put the 'work done by the other arts … to the test'.

What emerges from the pages of Vitruvius is a conception of occupational knowledge seemingly untainted by snobberies of social class or the anxieties of an occupation vying for position and social status. The would-be architect, we are told, must be *educated*, yet there is nothing here to suggest any knowledge that is superior by dint of being irrelevant or detached from any practical purpose or know-how. Moreover, it is a conception that stands in contradistinction to behaviourist or instrumentalist tendencies, and it is similarly at odds with those arrangements which today place the emphasis on 'learning outcomes' and thus systematically confuse the consequent conditions of knowledge for knowledge proper. The question now is how we should properly conceive of occupational knowledge if not by resort to the notions of theory and practice, for only when we are clearer about this will we be in a position to appreciate what it is off-the-job and on-the-job modes of provision might each contribute to the development of vocational capability.

A Different Approach

In contrast to those conceptions of occupational capability which cast knowledge in terms of theory and practice, let us begin instead with the simple observation that in order to be capable in an occupation, one must be able to recognise certain things

and be able to see things a certain kind of way. For instance, the technician in our earlier example must be able to make sense of the factory's complex mass of wiring; he must be able to recognise some intelligible structure and purpose where the untrained eye might see only spaghetti-like confusion. What is at issue here is not merely the means to interpret things but, rather, the facility to actually *see* things *as* certain things. Wittgenstein's (1953) famous reference to 'seeing as' is entirely pertinent here. As Wittgenstein says, it simply would not make sense for someone, on seeing some cutlery, to say 'Now I am seeing this as a knife and fork'. As he says, 'One doesn't "*take*" what one knows as the cutlery at a meal *for* cutlery; any more that one ordinarily tries to move one's mouth as one eats' (p. 195). What I want to suggest is that in order to be capable in an occupation, one must in effect be able to 'see' and make sense of an entire 'world' of meanings, purposes and involvements, and this is something that clearly has to be *learnt*. There is no distinction in this respect between the academic and the applied arts, for that 'world' might be the world of art or science, mathematics or music or indeed the 'world' of an occupation such as architecture, engineering or teaching. Furthermore, our being able to see things in a particular way would seem to be something that is necessarily and irredeemably grounded in some wider purposes, goals and values. As Martin Heidegger (1962) recognised, one's understanding of even a single tool, a single operation or a single performance will be connected inextricably to some broader, more extensive understanding of what it is we are doing, why we are doing it and why this matters in the broader scheme of things. And, again, this is certainly not a matter of simply learning the facts of the thing in question or learning the requisite do's and don'ts of an activity; rather, it is a matter of coming to recognise and understand the importance and significance of things. So in contrast to the view that occupational capability consists in knowing certain facts or having particular manual dexterities, on the view presented here, our becoming vocationally capable would seem to be first and foremost

> … about our gaining certain fundamental understandings and abilities relating to how that particular world works, how to cope in it and find our way around it – rather than necessarily being able to exhibit the secondary and derivative behavioural or propositional manifestations of those understandings. In becoming capable we learn to adopt a particular stance, a certain interested and purposeful viewpoint which in turn structures our consciousness and our experience. We thus come to be equipped with a certain kind of 'readiness'; we are able to see things *as* certain things, we are able to interpret what we experience and extrapolate from it in a way which is appropriate to the world in which we wish to operate. (Lum 2009, p. 113)

Now it seems clear that this kind of understanding can usefully be informed by both theoretically and practically oriented pedagogical arrangements and, similarly, by both off-the-job and on-the-job modes of provision. However, this is not to say that these are interchangeable. One thing that will determine the relative emphasis that should be placed on each is the *kind* of world within which the learner is required to operate. The more concrete that world, the more important will be learning in the workplace; the more abstract or complex that world, the more important will be off-the-job provision. The value of on-the-job provision lies in its facility to provide the learner with direct experience of engaging with that world to thus know its

characteristic features and understand how it works. But there are limitations to what such provision can achieve, for it cannot readily convey meanings that transcend what is readily apparent, and neither will it, in itself, necessarily convey anything of the values and purposes that ultimately must come to be an intrinsic part of the practitioner's facility to act. An apprentice technician is unlikely to derive anything of the structure and purpose of the factory's electrical system from the tangled mass of wires which confronts him – no matter how long he spends scrutinising it. He will only be able to make sense of that world by having it presented differently, by first becoming familiar with schematic representations of the circuits and understanding how each part of a system works and is coordinated into a whole – and learning these kinds of things is something that for all sorts of reasons will often be best done at some remove from the workplace.

It is a gross oversimplification to associate on-the-job and off-the-job preparation, respectively, with practical and theoretical modes of provision. On the one hand, it is entirely feasible for learning in the workplace to extend beyond the mere exercise of practice, and it is here that the role of mentors can be especially important. By the same token, it is equally feasible for off-the-job provision to be purposefully practical in nature. Indeed, often the most important practical training will be carried out at some remove from the workplace, sometimes necessarily so. Simulation is a case in point, for simulation can provide the opportunity to engage in practice in circumstances which do not incur the inconvenience, expense or risk of carrying out those same activities in the workplace. Moreover, there can be sound pedagogical reasons for off-the-job provision to employ active modes of learning as opposed to more passive modes such as lectures (cf. Griffey and Claxton 1997). But it is significant that the requirement here is *not* that learning activities should correspond with the performances ultimately required of the practitioner; indeed, it is possible that the activities which best promote learning in a particular instance may have no relation whatsoever to such performances.

Such considerations clearly have a bearing on how we should evaluate the relevance and sufficiency of the vocational curriculum. Conceived in terms of theory and practice, that is, the consequent conditions of knowledge, there will inevitably be a tendency to underestimate the extent of what is required. On the model proposed here, effective performance in even the most basic of occupations can be recognised as requiring a level and kind of understanding that is likely to be overlooked on the theory/practice model. Even the task of stacking supermarket shelves, if it is to be done effectively, might be seen to require more by way of understanding than is immediately apparent, an understanding of such things as the needs and expectations of managers, fellow workers, customers; an understanding of where things are located and how things are organised; an understanding of how to deal with members of the public, of the factors that should properly influence the prioritising of tasks; and so on and so forth. It goes without saying, of course, that for a good many occupations, the level and complexity of the understanding required will be substantially greater. For whatever occupation, however, the danger in conceiving of vocational provision in terms of theory and practice is that we stand to overlook what it is the practitioner needs to *understand*.

Similarly, with the question of relevance in the vocational curriculum; in the traditional theory-practice scheme of things, the relevance of practical content will be assessed in terms of a correspondence between the consequent conditions of learning and the functional requirements of the occupation. The relevance of 'theoretical' content will be judged according to whether performance expressly requires a knowledge of the propositions identified with such content. In contrast, on the view presented here, relevance should more properly be conceived in terms of the contribution a curriculum makes to a person's understanding of the sphere of involvements implicated in a particular occupational role. That is not to say that this understanding should necessarily be limited to that role, for as Vitruvius understood, what the practitioner requires is an *education*, not express learning outcomes.

It would seem clear that any attempt to conceive of occupational capability in terms of theory and practice, thinking and doing, knowledge and skills, etc., is to risk radically underestimating what is required. Yet in truth, the fault lies not with these age-old categories but with the modern preoccupation with 'learning outcomes', 'competences/skills' and all similar such nomenclature associated with the bureaucratic compulsion to specify, measure and control. If anything should be blamed for shifting attention away from what a person needs to understand and for causing us to lose sight of what a vocational education should consist of, it is this.

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Chapter 4
Tacit Knowledge and the Labour Process

Theodore Lewis

Introduction

Virtually absent from the discourse on knowledge work in the new global economy are treatments of the question of knowledge ownership. There is a default assumption that knowledge yielded in the workplace rightly accrues to the employer, though much of it originates in the minds and out of the practice of workers. When that knowledge is tacit in nature, the question of ownership becomes even more acute. Tacit knowledge may provide workers their sense of uniqueness or identity in the workplace and may be an important yardstick by which they measure their worth to the organization. Tacit knowledge indeed is personal knowledge. Codifying and sharing such knowledge should therefore require the consent of those workers in whom it resides. This requires some sense of justice on the part of employers, as well as tactful human resource management approaches.

The new economy is characterized by job insecurity and severe erosion of the psychological contract between organizations and workers (see Suazo et al. 2005). Thus, some workers may resist attempts to appropriate the knowledge upon which they draw to perform work if they believe that sharing could devalue their unique worth to the organization, making them more expendable. Social exchange theory teaches that workers are more likely to give up their own unique understandings for the greater good of the organization if they perceive themselves to be beneficiaries of the organization's goodwill. The norm of reciprocity must be at play, where workers feel that they get value at work in return for giving up their know-how.

In important ways, the current knowledge discourse harkens back to workplace conditions of the late nineteenth and early twentieth century when the machine age

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dawned and customized craft work yielded to manufacturing in factories. Old secrets from the era of the craft guilds had to be given up to make way for efficiency-enhancing machines and innovations such as the interchangeability of parts and standardization of devices such as screw threads. Industrialization brought with it a new sociology of production, with lines drawn roughly between a factory-owning capitalist class and a labouring class that was gradually losing the protection of the guilds it once had. As the craft era gave way, there was a migration of knowledge from people to machines, part of the mechanization and automation of work exemplified by Frederick Taylor's atomized work designs. Skilled workers found that they no longer had the autonomy and discretion they once possessed. The labour process became a matter of contention. Foucault (1980) noted that factory designs took their cue from prison panopticons featuring surveillance and the normalization of workers. Braverman (1974) reported a systematic attempt on the part of managers to reduce the power of workers by seeking to simplify their jobs through atomization and the introduction of technology and distributing the required skill across a greater pool of workers, thereby creating surplus labour. This knowledge migration led to the demise of craft in blue-collar occupations (see an account from the printing industry by Kalleberg et al. 1987). Eventually deskilling was to make its way to white-collar occupations as well (see Hecht 2001, for an account from the insurance industry). Zuboff (1988) had proclaimed that reskilling was required, after seeing computerized systems replace tacit-based systems in a paper mill. Workers now had to rely more on their minds than on their bodies, she contended. Tacit knowledge was cast in this study as a relic of the past. More recently, Sayce et al. (2007) documented the decline of craft, and craft identity, in a carpet-manufacturing firm in the UK.

But tacit knowledge has never really left the workplace, as it abounds wherever communities of practitioners assemble at work. People on the front lines will always find ways to do things more quickly or more creatively. They will discover applications never intended by the work designers. The new thrust towards knowledge sharing and codification is thus a concession that tacit knowledge never left the workplace and that it is in fact a source of value. As such, it represents a continuation of capitalist attempts in the twentieth century to control power at the point of production. In the same way that tacit knowledge was a critical factor of craft work in the twentieth century, it is all too clear that it is also a critical feature of work in the information age. Like the machinist of the industrialization eras, the highly skilled workers of the information technology era possess tacit knowledge, kinds of knowledge that are intuitive, not easily describable, and not easily transferable because they are context-based. According to the Organisation for Economic Co-operation and Development (1996, p. 13), tacit knowledge is at a premium in labour markets, with skill in recognizing patterns in information, and in interpretation, in high demand. The OECD paper notes that tacit knowledge can be acquired through learning, especially learning-by-doing. A report by The Work Foundation says tacit knowledge is "acquired on the job and resides with the individual as know-how and experience" (Brinkley 2006, p. 5). They go on that tacit knowledge can "walk out of the door"; hence, "firms may make strenuous efforts to retain key workers or impose restrictive

clauses in their employment contracts about future employment" (p. 6). Here, we see the tension of this chapter.

The new interest in tacit knowledge comes out of new insights into the nature of knowledge. Scholars from the realm of organization science have looked to philosophy for insight. Workplace epistemologies as offered by Blackler (1995) and Raelin (1997) have helped in the theorizing of knowledge construction as people work, and Michael Polanyi's (1962, 1968) decades-old conception of tacit knowledge has witnessed a revival. Much knowledge in organizations remains unarticulated and latent. Current thinking is that organizations must go beyond this latency and convert this knowledge to accessible and distributable form.

In this chapter, I examine the widespread global interest in knowledge sharing through the lens of labour process theory, raising questions about the ownership of knowledge and suggesting that the push towards the codification of tacit knowledge represents a proof of that theory. The quest to unearth tacit knowledge rather than employ humanistic management practices at work is suggestive of a value orientation on the part of contemporary managers. As in the nineteenth and twentieth centuries, we are seeing that workers, as Braverman suggested, are but an expendable form of capital. In exploring the tensions associated with these initial ideas, the remainder of this chapter is organized as follows: (a) knowledge and wealth—retreat from human capital? (b) knowledge management and knowledge appropriation, (c) rise of tacit knowledge, (d) knowledge ownership, and (e) implications.

Knowledge and Wealth: Retreat from Human Capital?

There resides in the contemporary literature a degree of underappreciation of the significant role that knowledge would have played in precursor economies. Today's "knowledge" society represents a stage in a progression that had its origins in tacit and communal forms. Epstein (1998) has shown that across Europe apprenticeships in the trades and crafts abounded, dominated by guilds in a tradition where innovation and knowledge were carefully managed. The primary item of exchange in apprenticeship was knowledge. Stevens (1990) has chronicled the role of knowledge in early industrialization in the United States, featuring the spread of Mechanics' Institutes and the creation of an alternative form of literacy—technical literacy—to meet the peculiar conceptual circumstances of the world of tools and machines. The challenge for educators was to link the "grammar" of traditional literacy to the spatial thinking and its referents in mechanized manufacturing (p. 524).

Stevens calls attention to early attempts to merge school and industrial life to make mechanics who worked by rules of thumb more literate and more attuned with technological change. It is this culture of craft, harnessed onto twentieth-century mass production factories, after having made great literacy strides in the nineteenth century, in whose defence Braverman (1974) arose, after noticing that through the assembly line, and the introduction of new technologies, craft workers had become increasingly more marginalized at work. As their work became more transparent,

it became reachable by a wider pool of workers. I go back briefly next to Braverman's labour process theory to help set the stage for the discussion of knowledge at work. There are augmentations of Braverman's basic thesis relating to *resistance* at work (Edwards 1979), *consent* (Burawoy 1979), and *subjectivity* (Knights 1990) that must be acknowledged at this point.

Braverman's Labour Process Theory

Braverman's (1974) theory was that in the transition from the craft era when workers had complete control of their work to the factory age when management sought to take control of the labour process, class lines were drawn between labour and capital. According to Braverman, Frederick Taylor sought to bring scientific principles to the shop floor, feeling it to be an absolute necessity for management to be able to dictate to workers "the precise manner in which work was to be performed" (p. 62). Taylor rejected the idea that there was to be no interference with the worker's performance of work, feeling that management could at best only be weak so long as the worker was left with any discretion. Thus, it was necessary to control "the mode of performance of every labour activity, from the simplest to the most complicated" (p. 62). According to Braverman then, a first principle of Taylor was that:

> …managers assume … the burden of gathering together all of the traditional knowledge which in the past has been possessed by the workmen and then of classifying, tabulating, and reducing this knowledge to rules, laws and formulae…. (p. 77)

This rule strongly resembles today's interest in knowledge management and knowledge sharing where experienced workers must make their personal insights public. A second principle of Taylor was that "All possible brain work should be removed from the shop and centered in the planning or laying-out department…" (p. 78). Braverman viewed this as the key to scientific management. What makes the human superior is the "combination of execution with a conception of the thing to be done". …. (p. 78). But it is possible to divorce conception from execution (mental from manual), and when this is done, the effect is dehumanizing, since "(N)ot only is capital the property of the capitalist, but labor itself has become part of capital" (p. 80). The third principle of Taylor, following from the first two, was that management should "use the monopoly they hold over knowledge, to control every facet of the labor process and its execution" (p. 82). In sum, Braverman declared that the craft worker had been "deskilled", and with this loss of autonomy at work came loss of labour power.

Importance of Knowledge at Work

Economist Fritz Machlup (1962) with his work *The Production and Distribution of Knowledge in the United States* was a pioneer in calling attention to the idea that

knowledge production might be a pivotal dimension of the economies of developed countries. He conceded that the "nonmeasurability" of knowledge as a product was a limiting factor in determining the true size of the contribution of this sector, explaining that typically the products of the knowledge industry are not sold in the market but distributed at little or low cost. Machlup distinguished between *enduring* and *transitory* knowledge, the former being the more accustomed school knowledge, the latter being more idiosyncratic in nature but nonetheless of economic value. For this, Machlup offered the example of an importer who knows where to find particular kinds of goods. This kind of knowledge was valuable, he said, because it saves time. Because it is akin to knowledge in the tacit realm, this category of knowledge was an important forerunner of today's conception of knowledge, in which tacit knowledge features prominently. Machlup had identified an entire sector of the economy that was flying virtually undetected under the radar. Later, Daniel Bell (1974) and Peter Drucker (1969) were to predict that this sector of the economy would become predominant. There is a growing view that we are now witnessing a knowledge economy and that Machlup's *transitory* knowledge, now given the general label *tacit* knowledge, is the coin of the realm.

Machlup had concluded that the measurement of the value of knowledge as a product posed difficulties. But human-capital scholars had found a way around this by reframing the problem, asking not what the knowledge worth is but what is the return on investment in the people who are consumers of it. Goldin (2001) contends that it is here that the United States separated itself from its competitors as an economic power in the twentieth century—by investing in schooling at all levels. She writes that:

> The novel concern at the dawn of the twentieth century was that post-literacy training could make the ordinary office worker, bookkeeper, stenographer, retail clerk, machinist, mechanic, shop-floor worker, and farmer more productive, and that it could make the difference between an economic leader and a laggard. The modern concept of the wealth of nations had emerged by the early twentieth century. It was that capital embodied in the people—*human capital*—mattered (p. 264).

The Knowledge Worker

The information age that emerged out of the human capital revolution yielded the so-called knowledge worker. Frenkel et al. (1995) theorized post-industrial society as comprising of "'knowledge work' and people-centredness, characterized by an emphasis on theoretical knowledge, creativity, and use of analytical and social skills," with control by technology and bureaucratic procedures to be replaced by info-normative control, that is, by agreed-upon performance standards (p. 774). Powell and Snellman (2004) characterized the new knowledge economy as one in which there is greater reliance on intellectual than physical abilities. In this economy, firms rely heavily on technologies founded on knowledge and information, and there

is growth in knowledge management consulting services designed for organizations seeking to become knowledge intensive. Peter Drucker was a prime mover of this new aggressive focus where knowledge came to be viewed as the basis of competitive edge. Drucker (1991) proclaimed that the greatest challenge for organizations in the developed world was to raise the productivity of knowledge and service workers. He portrayed knowledge workers as an elite with advanced schooling "who will always be in the minority, outnumbered by people who lack the qualifications for anything but low-skilled service jobs—people who in their social position are comparable to the 'proletarians' of 100 years ago, the poorly educated, unskilled masses who thronged the exploding industrial cities and streamed into their factories" (p. 70). This view of knowledge seemed to take the view that it was essentially a product of schooling.

Is Knowledge Work Rampant?

Just how rampant is knowledge work? Given the extent of the literature that speaks of this, is it the case that knowledge work abounds in the new global workplace? There are findings from the United States that high performance workplaces are on the rise, but these workplaces are associated not so much with knowledge as with new ways of deploying workers such as teamwork, worker discretion, and flexibility (Osterman 1994). From the UK, there is the sense that the economy tends towards low skill rather than high skill equilibrium, where low value-added goods and low wages persist in a tight spiral (e.g. Wilson and Hogarth 2003).

Some studies are suggesting that especially in the service sector there is the tendency to mislabel jobs. Thompson et al. (2001) assert that service work is often conflated with knowledge work even when the technical requirements for the jobs in question are modest. They examined two cases in Scotland, one focusing on customer service representatives and the other on call-centre workers, finding that for both types of jobs the focus was on aesthetic labour. Fleming et al. (2004) examined occupational changes in Australia in the period 1986–2000, finding that when the data are unpacked, the notion of rampant increase in knowledge work is not supported. There was significant growth among the professional classes but also among clerical, sales, and service workers, where the educational requirements of workers are not as high. They also saw a decline in tradespersons and related workers, which is consistent with deskilling and with the growth of technologies. One of the unresolved issues regarding knowledge work is how to measure the knowledge in work. On this count, Warhurst and Thompson (2006) write that there is a discrepancy between what is said to be knowledge work and how such work is measured. Knowledge is measured by proxies, such as ICT use, investment in R and D, qualifications, and occupations and skill, they point out, an approach that needs to be remedied via research.

Knowledge Management and the Labour Process

Knowledge management has become a critical dimension of business management. It is felt that knowledge holds the key to wealth creation. One disconcerting aspect of this focus is that its prominence might come at the opportunity cost of focus on human capital. The thrust of human capital theory was to improve the capacity of people through education and training, thereby to effect economic growth. The knowledge management focus directs our attention to knowledge itself—to repositories where the ideas of workers could be stored for communal use. The process involves "knowledge sharing" which is the agreement of workers to make their ideas and knowledge public and accessible at work. In the process, workers are becoming invisible.

Ikujiro Nonaka has been one of the leading knowledge management theorists. In one work, he wrote that the companies that will be the front-runners will be those that create new knowledge and disseminate it quickly within the organization so that it makes its way into new products and technologies (Nonaka 1991). But companies do not understand what knowledge is, he indicated. They do not know what it is or how to exploit it. He differentiated Japanese from Western management arguing that what makes the former successful is the unique approach to knowledge creation. The centrepiece of the Japanese approach is the recognition that creating new knowledge depends on tapping "the tacit and often highly subjective insights, intuitions, and hunches of individual employees and making those insights available for testing and use by the company as a whole" (p. 97). Here, we see the issue of this chapter starkly. What starts as the possession of the individual—his/her thoughts and insights—ends as wealth of the organization. Indeed, Nonaka says that "new knowledge always begins with the individual, whether middle manager, researcher, or shop floor worker" (p. 97) and that the personal knowledge of these types of workers becomes transformed into organization-wide knowledge. Nonaka and Von Krough (2009) identified two dimensions of knowledge creation based on types of knowledge (tacit and explicit). He argued that Polanyi had classified two types explicit or codified, and tacit which was personal and hard to codify, and rooted in action. In Nonaka's view, tacit knowledge embodied technical elements, such as mental models. He proposed the idea of *knowledge conversion,* a dynamic whereby tacit knowledge is made explicit in a number of ways, including socialization. Tacit knowledge held by individuals lies at the heart of the knowledge creating.

Knowledge Sharing

Knowledge sharing is not a benign social activity as the term suggests. It is in fact a stressful enterprise involving risk on the part of workers. The research is showing that when they do share it is because workers perceive some sort of implied reciprocity arrangement. Liu and Liu (2011) reported on a study on how knowledge was

shared in 9 companies in Taiwan's high-tech sector. Findings were that perceived self-efficacy played a key role in knowledge sharing … people share if they believed that doing so will improve their performance. Further, sharing occurred where there were incentive compensation plans. Ekweozor and Theodoulidis (2010) come to the heart of the issue when they observe that knowledge is "generated and controlled" (p. 2) *by individuals* even though it is a company asset. There is need to understand the factors leading employees who have complete control of knowledge to share such with colleagues for the benefit of the firm. They theorize that *ownership* is the key here. Ownership perceptions are the key to sharing. Favourable organizational contexts need to be created for organizational and individual ownership and knowledge sharing.

Commodification of Knowledge: A Global/Local Question

This question of sharing has international dimensions. We are in a world in which knowledge has been commodified, becoming a new arena of contest in the capitalist labour process. From a geopolitical standpoint, developed countries are better positioned than less developed ones to benefit from the storing and sharing of indigenous knowledge. Developing countries have weak legal traditions and are vulnerable to exploitation of local knowledge, such as medicines and food preservatives. Businge and Keim (2009) deal with this question pointing out that the Trade-Related Aspects of Intellectual Property Rights which these authors view as "the backbone of the capitalist project of the commoditisation of knowledge at the international level" does not protect developing countries from appropriation of forms of indigenous knowledge. It is important to see here that this question of knowledge ownership has both global and local dimensions reflecting the sweep of capitalism. Developing countries have a conceptually similar problem as do workers in developed countries, that is, they risk the loss of knowledge they own in the cause of global capitalism.

Espoused Reasons for Knowledge Management

What reasons are being advanced for current interest in knowledge and its management? It may be necessary to distinguish between espoused reasons and actual ones. Cabrera et al. (2006) write that there is interest in organizational knowledge as a source of competitive advantage "because it is valuable, scarce, path dependent, casually ambiguous, and hard to imitate and substitute by third parties" (p. 245). Other related explanations seen in the literature include (a) potential knowledge loss through turnover, (b) the personal nature of tacit knowledge and the need to convert it to explicit knowledge, and (c) knowledge can be created at work, under particular conditions. Noting that intellectual property rights laws may not be sufficient of a deterrent to provide comprehensive safeguards against knowledge leakage, Roberts

(2001) has provided a balanced look at the question of knowledge management, through economic but also political lenses. Contemporary organizations want *control* of knowledge, he points out.

Martins and Martins (2011) write that *knowledge loss* is challenging organizations, the sources of loss including turnovers, retirements, mergers, acquisitions. Because of such loss, firms lose capacity to learn from past experience, and this leads to the repetition of mistakes. Aggestam et al. (2010) provide a taxonomy of seven types of knowledge loss in organizations, loss meaning inability to capture this knowledge electronically. Reasons include inability to capture the knowledge, unwillingness of workers to provide knowledge, or lack of resources to capture knowledge. Starke et al. (2003) write about the loss of an indispensible employee—one who possesses knowledge not to be found elsewhere in the organization. When the employee leaves suddenly, there is no time to train the replacement; hence, there is loss of tacit knowledge. Roberts (2001) deals with this question, pointing out that intellectual property rights protections may not be sufficient to provide comprehensive safeguards against knowledge loss so organizations find it best to keep knowledge within the confines of the firm in the form of trade secrets. Tacit knowledge in these circumstances is less likely to be codified and distributed, but non-codified knowledge can be transferred to competitors informally through knowledge spillovers. Firms are seeking to protect loss.

Resisting Standardization at Work

One question raised by knowledge sharing is that it might lead to deskilling and loss of autonomy. Three cases in the literature (Brivot 2011; Smith et al.; Kamoche and Maguire 2010) illustrate that shared knowledge can be problematic if it becomes standardized or normative knowledge. Brivot examined knowledge management at a French legal consulting company, where best practice solutions to recurring problems are captured for re-use. The researcher wondered if knowledge management systems challenge "long-standing claims that their expertise is largely tacit and that quality professional judgement requires experience and acumen rather than the application of standardized solutions to known problems" (p. 490). Such was the importance of the knowledge management system to the organization that, consistent with Foucault (1980), surveillance systems were used to monitor document downloads, and the knowledge manager was required to report to the managing partner several times each month (p. 496). The lawyers used the system in a host of ways, such as to look for precedent cases, to see which colleagues have experience with a problem at hand, to monitor the work of peers, and to signal areas of interest as their own. Even the work setting had become bureaucratized. They were able to find a zone of compromise that left their traditional autonomy intact.

Smith et al. (2008) studied tele-nurses at a call centre in England and were interested basically in deskilling—in what would happen if a nurse had to rely more on encoded knowledge than on her own judgement. Call-centre tele-nursing is based on

standardized clinical assessment based a knowledge management process. They found that the nurses overrode software and reformulated clinical questions where they saw fit. They also used everyday language in referring to clinical symptoms. According to the authors, the nurses wanted to convey that they are not robots, nor were they resistant to change. Some saw the system as a source of new knowledge. Others saw this as the opportunity to gain new competences and to upgrade old ones.

Kamoche and Maguire (2010) report on attempts to appropriate the practical knowledge of workers in a UK coal mine. This study challenged the notion that knowledge was a white collar, professional attribute. "Pit sense" is craft-based understanding upon which coal miners draw when they work below ground. The miners rely on their senses. Pit sense has a strong safety dimension that is used to interrogate official health and safety rules. It is competence in safety and danger, acquired in situ. This knowledge contributes to miners' sense of agency. Researchers were interested in how workers saw their jobs and whether pit sense played a part in this. The mine owners engaged in compromise by conforming to the culture of pit sense if they could get expected "yardage" (of coal).

Rise of Tacit Knowledge

The turn to tacit knowledge constitutes, on one level, belated validation of the craft tradition within which work-related knowledge was to be held close to the chest—secrets to be passed on under controlled conditions through apprenticeship under rules governed by guilds. The assembly line and other twentieth-century rational devices pushed this kind of subjective knowledge into the background as management asserted its power on the shop floor. As discussed above, we are learning that tacit knowledge is not just a blue-collar phenomenon. Its resurgence and acceptance comes about because it is now understood to be present wherever communities of knowledge workers come together and that indeed its presence is correlated with innovation.

Herbert Simon (1991) has cautioned that in talking about organizational knowledge, we have to be careful not to reify organizations. He explains that "All learning takes place inside individual human heads; an organization learns in only two ways: (a) by the learning of its members, or (b) by ingesting new members who have knowledge the organization didn't previously have" (p. 125). In similar vein, Felin and Hesterly (2007) have identified a bias in contemporary discourse on knowledge creation towards the collective and have expressed the need for a "nested heterogeneity" (individual) approach in accounting for the value added by people to organizations. Tacit knowledge materializes at the interstices of workplaces not just in blue-collar work but in white collar as well. It is a reflection of human engagement with challenges at work and could take forms that are deviations from standard procedure. For example, tacit knowledge may lead one worker to take shortcuts in a process. Another worker may use his/her intuition to solve a technical problem.

This author has worked in a sugar factory in the Caribbean in which the sugar boilers whose job included making decisions about the readiness of the crystals at

the final stage of processing functioned completely in the tacit realm. They took samples from the vat as the sugar was being boiled and checked its elasticity with their fingers periodically to make judgments about crystal readiness. They had resisted instrumentation of the process. These sugar boilers operated on a guild system that kept their peculiar knowledge within a select group. Needless to say, this relatively small group of workers held immense power within the operations, compounded by their unionized status.

Some authors are of the view that tacit knowledge abounds when work spaces are constrained by geography and workers are free to interact therein. With a thrust in the high-technology age towards technology parks in which there are clusters of companies competing, there is strong support for the view that tacit knowledge abounds in these environments and that it is shared informally among employees (spillovers) (e.g. Gertler 2003; Howells 2002). Gertler (2003) contends that tacit knowledge is exchanged when people interact; hence, it shapes the geography of innovative activity, favouring the local over the global. It is difficult to exchange tacit knowledge over long distances, he suggests; thus, there is emphasis on social learning. This explains pockets of innovation such as Silicon Valley, but it also explains the push to teamwork in organizations.

Tacit knowledge features greatly in the discourse on workplace learning, what Nonaka views as the core of knowledge creating. Nonaka and von Krough (2009) contended that tacit and explicit knowledge can be discerned along a continuum and that knowledge creation involves the interplay between the two. Tacit knowledge abounds, somewhat surprisingly, in the scientific workplace. Scientists too have hunches and trial and error methods. One form of tacit knowledge is *what does not work*. MacKenzie and Spinardi (1995) contend that science could be situated, local and private. They write that important scientific know-how could be lost if there is not a generation to whom it can be transmitted. The example they provide is the nuclear weapons industry, a large part of which requires contextualized knowledge, and the work of communities of practice.

There is evidence that the construction industry is particularly given to the generation of tacit knowledge because of the prevalence of customized work. Teerajetgul and Chareonngam (2008) claimed that tacit knowledge was the most important source of knowledge on construction projects in Thailand. The construction manager accrues this over a long period of time. This knowledge is difficult to reproduce. Construction managers have more knowledge than they know. Several factors made the environment suitable, including opportunity for flexible and adaptable thinking, problem solving acumen due to novel situations, knowledge networks among individuals, and management conditions that favour knowledge creation. Pathirage et al. (2007) write that the construction industry is characterized by a concentration of small professional firms that offer highly tacit knowledge. These authors pointed out that the eastern approach is that tacit knowledge can be shared. They point out that much of how work gets done in construction lies in the minds of workers.

Who owns tacit knowledge? Or who should own it? Given the personal, intimate nature of this knowledge, why should it be owned by any entity other than the worker? As can be seen from the discussion up to this point in this chapter, much of

the discourse on tacit knowledge has to do with making it explicit, so it could be stored and used by entities other than the author. This approach clearly supports the view that employers own the tacit knowledge of workers. In the United States, legal scholars have begun to question the assumptions that underpin knowledge ownership at work, especially where the law prevents employees from utilizing knowledge that may have been of their creation in subsequent employment. In the next section of this chapter, issues of ownership at work are taken up.

Knowledge Ownership at Work

There is a nascent movement within the discipline of law that is reopening the question of ownership of knowledge in workplaces. The setting is the United States, but the issues raised call into question the state of the law internationally on the question of ownership of worker knowledge. There are issues here also about fundamental liberty. In *Working Knowledge: Employee Innovation and the Rise of Corporate Intellectual Property, 1800–1930*, Catherine Fisk (2009) provides a look at the earliest attempts of the capitalist class in the USA to lay claim to the knowledge of workers and to protect trade secrets. She shows that in the USA, between 1800 and 1860, workplace knowledge was "a personal attribute". The consensus about workplace knowledge among lawyers, judges, skilled workers, and entrepreneurs was that it was the possession or attribute of the individual worker.

At the beginning of the nineteenth century, the law recognized few ways in which employers could restrict their employees' use of knowledge in subsequent employment. Employees could leave their place of employment with whatever skill and knowledge they had acquired without hindrance. She writes that a critical juncture was the change in legal thinking in the USA on the question of copyrights and patents which saw a switch from monopoly to property. When patents and copyrights were viewed as monopolies, they were seen as a reward for individual endeavour, but this changed when they became viewed as just another form of property, at which point they came to be seen "like any other product that a person or firm might create, and just as transferable from employee to employer" (p. 35).

One practice that emerged after the switch from monopoly property was that in which employees signed written agreements to hand over to their employers the ownership rights to any inventions they made while on the job. The patent law had traditionally reflected and reinforced the notion of invention as the product of individual genius. Application for patents had to state the name of the inventor. Signed written agreements effectively gave employers ownership to employee inventions.

Fisk notes that prior to the civil war, there was no legal obligation for employees to guard secrets, processes, or other forms of workplace knowledge. But after the civil war, things changed, according to Fisk, with *contracts* becoming the dominant instrument guiding the employment relationship. She writes that after the war contracts prevailed. Thus:

> All sorts of employer rights were inferred from the fact of employment as courts began to find a plethora of terms favourable to management *implied* (emphasis added) in every employment contract, including the right to fire at will and rights to employee ideas and inventions. Particularly in the area of ownership of knowledge and creative products, contract law facilitated and legitimated a massive transfer of autonomy from creative workers to their employers. Contract had substantial ideological advantages as a form of discourse in the employment relationship. (p. 79)

Via the notion of implied contracts, trade secrets law expanded from protection of a piece of confidential information to a wide range of firm-specific information in subsequent employment (p. 98). Fisk writes that "As courts expanded trade secrets and used *non-compete agreements* (emphasis added) to protect employer control over workplace knowledge, they transformed the nature and ownership of what had been regarded as artisanal knowledge. It ceased being an attribute of skilled craft workers and became an asset of corporate lawyers" (p. 98).

To read Fisk's "Working Knowledge" is to rediscover Braverman's Labor and Monopoly Capital. Braverman did not see the critical legal angle, and this makes his theory so much more remarkable. What he did see and what Fisk corroborates was the correlation between the rise of monopoly capitalism and the corresponding decline of the power of the artisanal class, in the last two decades of the nineteenth century. Like Fisk, he saw that scientific management had much to do with this.

Elsewhere, Fisk (2006) made a case for more attention to be paid to attribution rights within employment contracts. She argued that innovation is fuelled by information spillovers via employee mobility and that attribution rights will foster worker mobility, which will not necessarily restrict the use of information critical to innovation. Fisk notes that it is too easy in corporate laboratories for superiors to take credit for inventions. The reason why attribution matters, says Fisk, is that it is often wrongly made between people of unequal social and economic power. In a law article in which she notes the escalation of lawsuits around the question of knowledge ownership and employees right to take their knowledge elsewhere, Katherine Stone calls attention to the mismatch between employer rights and a declining psychological contract. According to Stone (2002), most firms believe that the knowledge held by employees is their biggest asset for competitive advantage; hence, employers are increasingly seeking to enforce post-employment restraints. They are suing former employees to prevent them from taking knowledge acquired on the job for use on behalf of a competitor. Hence, disputes over ownership of human capital have increased over covenants not to compete and ownership of information and knowledge. Stone thinks this to be a key in understanding the *new employment relationship*. The firm no longer promises job security but instead promises training and networking opportunities, but these are undermined by restrictive covenants and the definition of trade secrets.

Stone points out that the conditions of work have deteriorated, under what she refers to as "the new employment relationship". There has been "recasualization" of work, meaning more part-time work and more contingent workers. Firms have

retreated from the psychological contract with employees. They expect organizational citizenship behaviour from employees, she notes, But for their own part, they do not promise job security. As to knowledge, Stone observes that the kinds of knowledge of commercial interest to firms are varied. Thus, "Firms value not merely specific technical knowledge, such as computer code … but also more mundane types of knowledge such as how the business operates, how the goods are produced, and how files are organized" (p. 737). They also value knowledge about markets, customers and competitors, and negative trade secrets—that is, information about what has *not* worked. As does Fisk (2009), Stone contends that the courts are tending to favour employers, but that given the mobility of labour due to job insecurity, they should look again at restrictions on the portability of human capital.

Conclusion

This chapter has dealt with the question of the seeming replacement of the idea of human capital with that of *knowledge* as the basis of economic growth. In particular, attention has been paid to tacit knowledge because this form of knowledge plays so pivotal a role in the knowledge-management and knowledge-sharing discourses. An underlying premise of the chapter has been that knowledge management and its manifestation, knowledge sharing, are new forms of capitalist attempts to curtail the power of workers, by appropriating their knowledge and skills, sources of their power at work. Braverman's labour process theory was invoked because it was in response to what seems like a parallel to knowledge sharing and codification, which was deskilling and mechanization.

The rise of interest in tacit knowledge is evidence that Braverman was correct—that employees and their ideas are viewed as capital, to be harnessed in the service of production. As Katherine Stone points out, the rise in the quest for appropriating worker knowledge through knowledge runs parallel to the demise of the psychological contract so that increasingly workers cannot expect conditions at work to be commensurate with their expenditure of talent. But the literature is showing that where workers make themselves subject to knowledge sharing, it is because of the promise of employer goodwill. Such workers expect better conditions of work, increased productivity, and greater psychological ownership.

What is disconcerting about the knowledge management push is the extent to which the worker is rendered invisible. There is distrust of workers in this new knowledge management regime, in which the focus seems to be more on the capital than on humans. Human capital has lost its lustre in this new efficiency discourse, as ex-workers find themselves bound by covenants that prevent them from working in the areas of their expertise, or for employers of their choosing if former employers perceive a competitive threat based on knowledge they might have taken away on leaving.

Implications

Several observations and implications can be drawn from the content of this chapter in the realms of workplace theory and research. They include the following:

1. The current discourse on knowledge work and knowledge management is an uncritical discourse that proceeds largely from the point of view of capital, thereby rendering the worker invisible.
2. The separation of knowledge from the worker that characterizes knowledge sharing is consistent with the separation of conception from execution that Braverman documented with respect to the craft workers in the nineteenth and twentieth centuries.
3. There is need for comparative, cross-national research that looks into the question of the nature of the laws of countries with respect to knowledge ownership. The knowledge management discourse proceeds as though the laws across countries are uniform in their provisions on this question—that capital is homogeneous and united—but there are different forms of capitalism (e.g. Coates 2000; Coleman 1988), and the attitudes to inventiveness among workers might vary across political cultures.
4. There is need for comparative, cross-cultural research on the treatment of tacit knowledge at work. For example, there is evidence of cultural variation in the way skill is perceived (e.g. Brockmann et al. (2008)).
5. There is need for research that examines the current press to codify tacit knowledge through the lens of labour process theory.
6. There is need for research that examines tacit knowledge from the standpoint of workers, that is, through the lens of power, autonomy, and identity.

It is a pity that the knowledge economy has taken the turn of knowledge management and that its aim is little more than the appropriation of the knowledge of workers. Knowledge has to be associated with enlightenment, and that is not the image that is conveyed when we see workers denied the basic freedom to ply their trade elsewhere because of what they know, in workplace environments that have long abandoned the notion of corporate loyalty, even as they extol the value of organization citizenship behaviour. The extraction of knowledge from workers, and the attendant threats to basic rights that accompany this, is a blot on capitalism and represents in this author's view a retreat from democracy. We are back here to the cautions offered by John Dewey at the turn of the previous century, when industrial practices such as child labour and unsafe work environments caused him to shun social efficiency as a vocationalist ideal and to embrace social reconstruction which afforded the speaking of truths to capitalist power. The extraction of the knowledge of workers, and the attendant legally supported hostilities that attend the changing of place of employment, must be seen as undemocratic. Workers in democratic states will instinctively resist attempts to so denude them of what they know and should rightly see this as an opportunity for renegotiation of the terms of employment. Workers in states that expect compliance as a basic response from citizens will have an easier time of this.

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Chapter 5
Workplace Identity, Transition and the Role of Learning

Geoffrey Hinchliffe

I wish to explore, in this chapter, the complex process involved in making transitions into employment. And by employment here, I do not mean simply the business of 'getting a job' but rather what is involved in finding an *occupation* which will sustain a person over a good number of years, if not a lifetime. As a starting point, I propose to take the conclusions of a small piece of research that I undertook, which examined the transition of graduates from university into full-time employment. These moments of transition affect very many people at different points of their lives – changing careers, re-entering work following a period of childcare or even changing employment within an occupation or a related occupation. I will argue that these moments of transition cannot be successfully managed simply through the acquisition of a new bunch of skills and techniques, although this is a very necessary part of what is required. Transitions go much deeper and compel a person to think in terms of their own workplace identity, comprising values, skills and knowledge. Transitions need not occur when one is unemployed, and of course the condition of unemployment (usually involving lack of income) adds its own pressures which may not assist a transition.

This has implications for lifelong learning programmes. Typically, lifelong learning is seen in two different ways. First, we have the programmes inspired by the ideal of liberal learning in which adults undertake a range of subjects 'for their own sake', and often adults take these courses because these subjects are precisely *not* related to their job or occupation. Or lifelong learning is directed towards enhancing employability, for example, by the acquiring of ITC skills or business skills. The upshot of my argument will be that a lifelong learning that does not focus on workplace identity is unlikely to promote in any substantive way the ability

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to handle transitions. That is, a lifelong learning that concentrates solely on skills acquisition is unlikely to help those who have embarked on lifelong learning in order to make or consider making a transition in their working lives. Indeed, paradoxically perhaps, they are more likely to be served by a lifelong learning characterised by liberal learning – I will elaborate on this thought in the final section.

It has implications for work-based learning as well, for similar reasons. Work-based learning that is entirely task-focussed and directed only towards skill acquisition will be of relatively little help to those persons who wish to effect a transition, not only into other forms of employment but also a transition of roles within a broader occupational structure. The reason, again, is that learning needs to take account of identity and the need for self-reflection within a suitable framework.

In what follows, I will briefly sketch out a concept of workplace identity that will serve the purposes for a consideration of transition. I will then use the outcome of a small piece of research to elaborate further on the nature of a particular identity in transition, namely, graduate identity. This will clear the way for exploring workplace identity in relation to occupations. Finally, I will consider the extent which the capability theory associated with Amartya Sen helps in thinking about transition and the implications this may have for work-based and lifelong learning.

The Concept of Workplace Identity

The idea of identity in the context of employability has been explored by Len Holmes (2001) through an investigation of *graduate* identity – that period of months (but often years) in which students have left behind their university-learning role but have yet to inhabit an occupational role. Holmes' starting point is a dissatisfaction with the prevailing concept of graduate employability in terms of skills acquisition. The skills approach simply cannot do justice to the complexity of graduateness because of the assumption that skills performance must be measurable and observable. Performance, Holmes suggests, depends upon interpretation of a situation, but this ability to interpret cannot be measured in any straightforward sense. Interpretation itself is a complex activity depending on both understanding a situation in terms of a practice and on agents understanding themselves in terms of their identity in the context of that practice. Thus, a practice provides the site within which identity is constructed. This identity itself is not fixed, since a practice itself may legitimise a series of related identities depending upon context. Furthermore, a practice also provides the site in which identities can be modified, revised and developed.

An identity may be seen in terms of expectations regarding a role, expectations which are normative, technical and epistemological. A precondition of this is the agent's ability to enact a particular practice in terms of learning the language and vocabulary, the goals and purposes and the broader environment in which a practice takes place. However, an identity is not fashioned merely through enactment of a practice. A strong degree of reflexivity is required because the agent starts to inhabit a role with identity at best only partly formed. Some degree of self-reflection is required to make the transition into the new identity based both on reflection in action and on reflection after the event.

A natural reaction to what has been said thus far is to acknowledge the role of identity but to observe, also, that there are as many workplace identities as there are employment roles: the concept 'identity' simply runs into the sand the moment it is grasped. But suppose there were structural features of workplace identity? And suppose these features were based not merely on theorising but also on some degree of empirical research? One way of identifying such features could be based on research that incorporated two variables: the first involving agents undergoing transition, that is, searching for an identity, and the second in which other persons – employers – are looking for persons to inhabit a role or identity. In some ways, recent graduates form a highly appropriate test bed for researching identity. These are persons orientated towards acquiring a role they have yet to inhabit. At the same time, we have employers who are looking to recruit on the basis of *potential* of graduates to acquire a role, and this implies that employers, whether explicitly or tacitly, need to operate with a concept of graduate identity themselves. The small-scale research undertaken on this basis proved to be most revealing in terms of the tacit notion of graduate identity that employers seemed to assume.

Thus, original purpose of the research was to explore graduate identity, but here, having laid out the main findings in this respect, I wish to further explore how concepts of graduate identity may be revealing about workplace identity as well.

Research into Graduate Identity

The research project, which was conducted over 6 months from March–September, 2009, aimed at probing beneath the conventional employability discourse of skills, competencies and attributes by speaking directly to employers. We wanted to hear the employer's voice, differentiated across size and sector. In this way, we would test the feasibility of the concept of graduate identity and find out if employers worked with a tacit or explicit concept of graduate identity. Thus, we could provide both the data and theoretical framework for evaluating the skills-led approach to employability by higher education institutions.[1]

Participants were drawn from small- and medium-sized enterprises, large organisations and public sector bodies predominantly in the county of Norfolk, England. However, national and multinational organisations comprised 12% of the respondents. One hundred and five online surveys were received from a variety of employers, 35 % in public sector. Small- and medium-sized enterprises (SMEs) comprised 66.7 % of the responses. Sectors included finance, local government, creative industries, IT, energy, construction, marine engineering and business support. In order to elaborate the responses in the survey, we followed this up with 20 in-depth interviews. Respondents came from a range of roles within organisations, including but not predominantly HR professionals.

[1] For a full account of the research, see Hinchliffe and Jolly (2011).

Since employers naturally use skills-talk in graduate recruitment, we asked a series of questions relating to skills and competencies and then broadened this out to ask about broader attributes relating to values and engagement. The aim was to find out what employer expectations were of graduates and to see if these expectations reached beyond customary talk about skills and employability attributes. Inevitably, we were also told of where graduates fell short of these expectations, but it was not our primary aim to elicit this.

In particular, in the online survey, we used three separate but related instruments in eliciting expectations of graduates. The first of these instruments tested expectations in accordance with well-established recruitment criteria. The second instrument then took a limited number of employability skills (elicited from the first instrument) and obliged the respondent to make a forced ranking. The third then explored the extent to which employers recognised broader, social values typically associated with a university experience.

In the first of these instruments, a series of statements of graduate potential were explored. These statements incorporated a range of accepted employability skills, competencies, attributes and personal qualities based on a survey of recruitment. Table 5.1 ranks each statement according to the percentage of respondents who expected the statement to be evidenced on appointment.

On the basis of these answers, it is clearly those personal ethical qualities of honesty, integrity and trust that are expected at appointment, ahead of any other skill or competence. Moreover, technical skills are not expected to be as highly developed as so-called 'soft' skills (e.g. listening skills, ability to integrate). The employer is prepared to wait (for up to a year only) for technical skills to develop (though it should be noted that during interview, it emerged, unsurprisingly, that certain specialist employers, for example, in engineering, did require a range of technical skills at appointment). But for many employers, less is expected regarding technical skills than the one thing that all graduates are presumably good at: the ability to present ideas clearly, both verbally and in writing. Indeed, the ability to demonstrate cultural and social awareness, on appointment, comes ahead of IT skills.

This does not demonstrate, of course, that employers think that technical skills are less important than soft skills. But they *may be* less important when deciding whether a graduate should be offered a job. The graduate must be able to fit quickly into a team, and if this attribute is lacking, they may not get appointed even if their technical skills are highly developed.

Noteworthy too are those statements towards the bottom of the list: for example, universities sometimes pride themselves on introducing research methods into undergraduate programmes, but only 29 % of respondents thought research skills were as important on appointment (though this figure goes up sharply after 1 year, once the employee has been 'bedded in'). As one would expect, employers are looking for graduates who are self-directed (manage their time, interested in learning and development).

The second instrument takes a selection of skills related to the above statements in order to find out just how much employers are committed to them. In order to achieve this, we asked the employers to indicate their rankings which were, in effect, forced – with the results shown in Table 5.2. The ranking confirms much of what employers

Table 5.1 Employer expectations ranked by preference

Expectation	On appointment (%)	At 1 year (%)	At 3 years (%)
Demonstrates honesty and integrity	98.10	0.90	0.90
Is someone I can trust	94.40	5.60	0.00
Is able to listen to others	93.50	6.50	0.00
Is able to integrate quickly into a team or department	92.60	7.40	0.00
Is able to present ideas clearly, both verbally and in writing	86.10	11.10	2.80
Can assimilate information quickly	84.10	15.90	0.00
Demonstrates good time-management	82.20	17.80	0.00
Can plan and manage their time	79.60	20.40	0.00
Can demonstrate attention to detail and thoroughness	79.60	19.40	0.90
Has a mature attitude	79.20	17.90	2.80
Is willing to take responsibility for their work	78.30	19.80	1.90
Is interested in learning and development	78.30	20.80	0.90
Can share ideas with others	77.80	22.20	0.00
Can demonstrate tact	76.90	20.40	2.80
Demonstrates cultural/social awareness	75.70	20.40	3.90
Has confidence in their own abilities	71.70	25.50	2.80
Is able to take the initiative	71.30	25.90	2.80
Can be relied upon by other members of the team/department	67.30	31.80	0.90
Is capable of learning new IT products and systems quickly	65.10	34.90	0.00
Is willing to take on new challenges and responsibilities	64.50	34.60	0.90
Has relevant technical skills	63.60	29.00	7.50
Thinks critically about their work	63.60	34.60	1.90
Shares the goals and objectives of my organisation	61.70	35.50	2.80
Can report progress to colleagues and managers	61.70	37.40	0.90
Is able to learn about my product/service thoroughly and quickly	59.30	39.80	0.90
Is able to recognise the limits of their responsibilities	58.30	39.80	1.90
Can take responsibility for a piece of work and see it through	57.40	41.70	0.90
Is capable of working without close supervision	57.00	39.30	3.70
Is willing to take on a range of tasks to achieve team goals	54.60	42.60	2.80
Is capable of understanding the structure of the organisation	53.30	45.80	0.90
Is able to communicate ideas about the service/business/product	51.90	47.20	0.90
Can communicate appropriately and effectively with clients/other agencies	50.50	45.80	3.70
Can represent my business well to others	48.10	44.40	7.40

(continued)

Table 5.1 (continued)

Expectation	On appointment (%)	At 1 year (%)	At 3 years (%)
Is able to work unsupervised	46.20	47.20	6.60
Is capable of taking on a broad range of tasks	45.80	44.90	9.30
Quickly gains an undevrstanding of policy and procedure	45.80	54.20	0.00
Can break elements of a job/project down and plan accordingly	43.00	52.30	4.70
Is able to reflect on their own development and identify strengths and weaknesses	42.50	50.90	6.60
Is able to see how my business fits into the wider sector/market place	41.70	56.50	1.90
Can identify the appropriate tools (physical/virtual/administrative)	40.60	53.80	5.70
Can negotiate with others	36.40	53.30	10.30
Can be asked to undertake independent research	29.90	59.80	10.30

Table 5.2 Employer rankings of employability skills

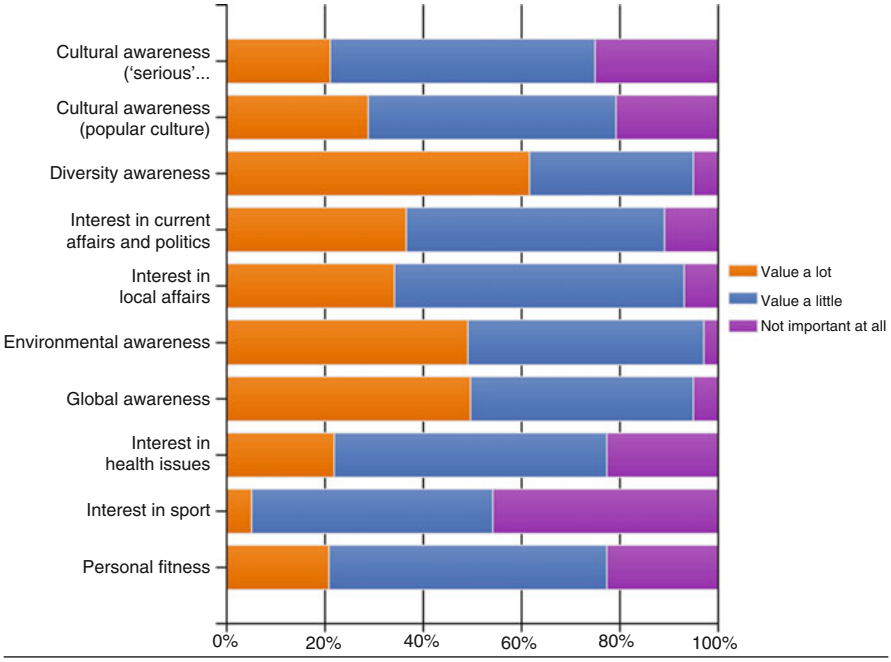
Employability skill	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)
Interpersonal skills	57.80	18.90	8.90	8.90	4.40	1.10	0.00
Written communication skills	14.40	28.90	13.40	16.50	17.50	6.20	3.10
IT skills	9.00	15.70	19.10	18.00	14.60	9.00	14.60
Experience of work environment	8.40	8.40	14.70	13.70	13.70	20.00	21.10
Commercial/business awareness	7.50	16.10	14.00	9.70	16.10	12.90	23.70
Numeracy skills	5.50	9.90	19.80	16.50	16.50	18.70	13.20
Presentation skills	1.10	9.70	16.10	17.20	14.00	25.80	16.10

told us about what their expectations were on appointment. Interpersonal skills come out as far ahead of any other skill and, again, written communication comes ahead of IT skills. Note the low priority given to presentation skills – possibly suggesting that academics would be better employed in improving their students' written communication rather than spending hours helping them to hone skills using PowerPoint.

Another surprising finding was the comparatively low ranking accorded to experience of the working environment: when obliged to prioritise, employers found themselves ranking other attributes and skills much more highly. Yet this low ranking was also confirmed at the interview stage, for what employers emphasised, there was the *quality* of the work experience. The implication is that work experience as such may not count for much unless that experience can be translated into a demonstration of, for example, strong interpersonal skills and an ability to reflect on that experience.

Finally, we tried to adopt a different perspective by focussing less on employer requirements and more on the kind of values associated with the university experience. We wanted to find out the extent to which employers recognised the kinds of activities those universities themselves typically value and encourage their

Table 5.3 The value to employers of broader attributes gained through the university experience



undergraduates to develop (e.g. as shown in the corporate plans and mission statements of universities). The results are shown in Table 5.3.

These findings contain a few surprises. For example, we had not expected such a strong endorsement of diversity awareness, although the importance of this had already been flagged up by the first instrument: 75 % of respondents indicated that they expected diversity awareness on appointment. At the interview stage, employers told us that this ranking flowed from the diversity of their customers and clients: the importance of diversity awareness was business driven and was not determined by expectations related to political correctness. By contrast, the comparative indifference with which interest in sport is treated strongly suggests that graduates who list their sporting prowess on their CVs are simply wasting their time – unless they can use this as evidence for demonstrating interpersonal skills. Again, the importance attached to environmental and global awareness flows from a business perspective: this kind of awareness is valued because with it business opportunities are more likely to be generated.

What also emerges, as we shall see, is that the kinds of values that many students and their lecturers espouse and develop are also recognised by employers. Moreover, it was clear from the interview stage that this recognition ranged across all sectors and all types of employers, including SMEs. It was re-enforced by frequent comments by employers on how much they valued a broad-based experience in which graduates, as students, had made the most of all the opportunities available to them

through volunteering, societies and events. Employers were often suspicious of graduates who had used their student experience in a narrow way, merely to recapitulate the experience they brought with them from school and family.

Constructing Graduate Identity

In constructing graduate identity, it is not enough simply to read off employer requirements. For this merely gives us the attribute list approach to employability, whereby skills needed for employment can be duly 'ticked off'. Yet if anything emerges from these findings, it is that employers do indeed think beyond conventional skills discourse and attempt to probe a broader range of graduate experience in order to assess their potential. How, then, should we conceptualise this experience? A heuristic method instantly presents itself: instead of reading off from employer requirements a list of skills, we use these requirements to identify the kinds of graduate *experience* that employers are interested in. And given the findings, four types of experience suggest themselves. First, it is clear from the employer concern with diversity and personal ethics that values are a key component of graduate identity, that is, the extent to which the graduate has engaged with values. Second, it became clear (especially in the longer interviews) that employers value the role of intellect which they see as delivered through discipline-related study. Third, all employers are looking for performance – the ability to deliver results. And finally, it goes without saying, from the persistent high ranking given to interpersonal skills, that employers are looking for evidence of experience of engagement with others across a variety of contexts. Graduate identity, it is suggested, is made up of the four strands of values, intellect, performance and engagement. The precise mix will vary across employers, size and sector, reflecting the distinct nature of each organisation and its structure, 'product' and ethos. The implication of this is that graduates need to be aware of their own identity (or profile) across these four sets of experience. But before discussing how the concept of workplace identity can be developed, I shall first explore the four strands in a little more detail, in the context of the research that was undertaken.

Values

Values include personal ethics, social values and contextual, organisational values, including the value of entrepreneurship. The world of work is sometimes mistakenly seen as a value-free, technocratic domain. Thus, the emphasis placed on personal ethics is not something which is merely given: without this personal commitment and the desire to gain trust, employment rapidly becomes pointless:

> The trust thing is really important because without it we can't have confidence in someone – even leaving someone to lock up if they are last one out is an important sign of trust in them.
>
> IT Manager, International Company

Thus, graduates need to be able to demonstrate they have held positions of trust: it is not assumed that everybody is equally trustworthy. This demonstration of trust often requires a practical commitment.

By social values, I refer to diversity awareness, cultural awareness, interest in the environment and the other values indicated in Table 5.3. As I have already mentioned, the importance placed on these is primarily business driven. But an engagement in social values does not only indicate that a person has a more heightened sense of social responsibility: it indicates to the employer that the graduate who has demonstrated awareness is more likely to be aware of, and respond to, the normative environment in which the business operates. Partly, this is a question of a willingness to espouse all the issues across diversity and equal opportunities that employers have to address. But the normative dimension is also an aspect of the business environment: an employee who is diversity-aware is less likely to miss or neglect real business opportunities.

Thus, some awareness of different cultures, races and religions was important to respondents, recognising that such awareness may bring benefits to the client/customer relationship. Testing these findings at interview, it was also noticeable that diversity awareness was appreciated for and of itself, rather than to fulfil or comply with legislative requirements in the workplace. Such social values were also expressed in terms of respect for others and, more subtly, a respect of status (the individual recognising their need to learn and develop and not to impose ideas and opinions on colleagues or clients).

> It's less because we have to tick [the box], yes we are a diverse organisation, but for me it says more about their mind. If you are culturally aware and aware of diversity you are probably a more rounded person. In our organisation we probably don't have a huge number of external clients, we've got lots of internal clients and being able to meet someone for the first time and assess how you can then develop a rapport with them; its quite important. I think that if you have that awareness, it helps, because you are able to adapt your style… to get the results you want, the answers that you need.
>
> Finance Sector: Multinational

Contextualised values were those shared with the ethos and/or objectives of the organisation, whether it be a shared understanding of demands placed on an SME (e.g. the need to be a flexible and outward-looking employee) or a shared understanding of the broader aims of the organisation (e.g. in providing a service to clients). Such shared values were particularly central to younger, smaller organisations that relied, in part, on the strength of a small team and the benefit that a shared vision might bring to its success.

Intellect

Intellectual rigour was seen by employers primarily in terms of an ability to think critically, analyse and communicate information, reflect on all aspects of their work and bring challenge and ideas to an organisation. Again, intellect can take many forms in the mind of the employer but may be best defined as creative, situational or applied and reflective.

Intellectual curiosity and creative approach (particularly to problem solving) are elements of the graduate identity that are especially valued by medium-sized organisations and those with a structured graduate route. These respondents (at interview) viewed the graduate development process as an opportunity for trainees to apply their recent experience of learning, questioning and testing to a new environment. Therefore, the need for enthusiastic individuals who offer fresh ideas was paramount and reflected this desire for intellectual curiosity:

> I want people who can think who can paint pictures and communicate that, and be prepared to have discussion and debate and dialogue and argument.
>
> Construction Sector: Departmental Manager

With regard to applied or situational intellect, the knowledge base developed through study at a higher level was significant for particular sectors, for example, IT (requiring a sound understanding of the principles of programming) or engineering (where a measurable technical skill set is required). The size and sector of each business had a profound effect on the value of applied intellect, with the more technical/professional organisations requiring (and sometimes expressing concern over) the quality and ability to apply knowledge as graduates enter employment. Partly, this concern was with the ability to work at the appropriate level of detail and accuracy:

> Accuracy is imperative in our field. In education establishments, errors in calculations may be acceptable to an extent but in the real world no errors can be allowed – 95% is not enough.
>
> Civil Engineering SME

Implicit in this concern was the need for awareness by the graduate that their knowledge or skill may not be of the required standard (that there is more learning to be done) and that they were then capable of acting on this. Such awareness did not apply only to technical skills and knowledge but to general commercial awareness and independence in 'learning about the job'.

Employers recognised the central role that university plays in developing intellect, but inherent in this is also the ability to broaden thinking and reflect on learning and development. Thus, the capacity to reflect appeared to be one of the fundamental requirements of employers, influencing, as it does, the graduate's ability to make choices about and develop their own careers, operate well in a team and with clients, identify development and training needs and assess the efficacy of their own work.

Performance

Performance may be usefully defined as the application of skills and intellect in the workplace, and for the graduate, this equates to the ability to learn quickly and effectively and to develop skills appropriate to the role. Performance is therefore most closely aligned to the established employability skills matrix that dominates current definitions of graduate identity. Performance is about delivery and results. In this respect, the survey interrogated employability skills both implicitly (embedded in competency statements in Section One of the survey) and explicitly (requiring respondents to rank commonly accepted employability skills).

> When I think about it, it all boils to the ability to communicate. I think that's really the key for me when I recruit. You've got to have a 2:1, get through the numeric tests, through the telephone interview which tests your commercial awareness. But even when we get people at the assessment centre you know that they are not going to get through, because they don't have the ability to communicate…
>
> UK Graduate Recruitment Manager: Multinational

Employers generally expressed confidence in the graduates' ability to take a foundation of skills gained at university and apply them in a new setting: for example, the knowledge of IT languages could be applied in order to learn new programmes. However, there were notable concerns about core skills. For example, attention to detail and thoroughness was required by 80 % of employers on appointment. Yet both those surveyed and those interviewed expressed some concern over the ability of graduates to check and revise their work.

Engagement

What came across strongly at the interview stage was a desire by employers to see some kind of evidence that graduates have engaged in work experience, in volunteering and in making the most out of the student experience and have shown a preparedness to step outside the familiar and the comfortable. However, what employers also want to see is that this has been done over a sustained period and has not been merely haphazard. They are looking, in other words, for engagement in communities of practice, whether these be work-based communities, virtual communities or social communities. In this way, the graduate will have had to learn a different kind of discourse through the very act of participation itself.

This is the kind of situated learning that Lave and Wenger (1991) and Wenger (1998) have shown that involves systematic participation and engagement in which:

- Often much of what is to be learnt is not written down.
- Learning affects and transforms attitudinal and behavioural response.
- Learning often requires the development of relatively sophisticated interpersonal skills.
- There is always a codependency on others so that learning never belongs solely to the individual but its nature is sharable.
- Respect and recognition arise through sustained participation.
- Awareness of context (which itself may shift and change) is vital if successful learning and interaction are to take place.

Whilst graduates are not expected to demonstrate a sustained engagement with a community of practice over several years, employers do indeed expect some limited engagement with such a community, and to demonstrate an awareness that learning does not only arise through traditional disciplinary engagement. It is the experience, albeit limited, of a community of practice that enables an employer to assess those all-important interpersonal skills.

From Graduate Identity to Workplace Identity

The suggestion, therefore, is that the four dimensions of graduate identity can be used to think about workplace identity. The purpose of the research had been to test if employers worked with a tacit concept of graduate identity. Yet this concept of graduate identity did not arise, I suggest, out of some prior, preformed notion of 'graduateness'. Rather, what employers were doing was operating with a concept of workplace identity and then modifying it in the light of expectations of those who had recently left university with a degree. Hence, it seems reasonable that every statement that can be applied to graduates can also be applied more generally to workplace identity. Values, intellect, performance and engagement are attributes of role in the workplace and clearly are not confined to those who are graduates. The status of being a graduate often does not last long – sometimes only a few months if that. That is, one ceases to be a graduate and one becomes an accountant, a teacher, a journalist and an engineer, even if one is seen to be still in a trainee role. But the attributes of workplace identity, exemplified by the four strands or dimensions, do not disappear. In fact, they become stronger, as evidenced by the first instrument when we look at expectations after 3 years.

These theses about identity may seem somewhat overblown if workplace identity is simply thought of in terms of a 'job', that is, in terms of a series of tasks with measurable deliverables. But if we think in terms of 'occupation', then the dimensions of identity take on a greater significance. Chris Winch, in his book *Dimensions of Expertise*, discusses the concept of occupation, drawing on German concept of *Beruf* (= profession or occupation). Winch argues that *Beruf* implies a series of characteristics. Some of these are readily recognisable, such as task-related skills and techniques. But it also includes broader-based abilities relating to the planning, communicating and coordination of work, the deployment of systematic knowledge (both technical and theoretical if needs be) and finally a series of normative dispositions including 'the ability to take responsibility for one's work, to develop personal characteristics of commitment to moral values, and to take responsibility for the consequences of the practice of one's occupation in a wider social and political context' (Winch 2010, p. 73–74). Now, I would argue that our research suggests that employers themselves are much more inclined to think in terms of occupation and *Beruf* if we take seriously the range of attributes and expectations they have in respect of workplace role.

Thus, if we think about occupation in a more rounded sense, then we can see that it is underpinned by the four dimensions of workplace identity. Of course, in the actual undertaking of a role, some or even all of the dimensions may be brought into play at the same time. For example, the need for intellectual and technical accuracy noted above could be also be seen as an aspect of performance, and certain values may be manifested in engagement. Particular agent-driven events may see all four dimensions enacted together. When, however, an agent is thinking about what workplace identity he or she needs to adopt – what would be most suitable and what their preferences

are during times of transition into employment or crossing employment sector boundaries – then the dimensions of identity provide a framework for reflection.

The need to undertake deliberation in order to establish and develop a workplace identity assumes that agents are what is sometimes termed 'strong evaluators'. Charles Taylor has, perhaps, done most to develop this concept of the self (see Taylor 1985 passim, but especially Chap. 1 for an introduction the concept of strong evaluation). Taylor explains that 'weak evaluation' is only concerned with the evaluation of the best means to attain pre-given ends (e.g. ends delivered through desires), whereas strong evaluation seeks to shape and modify existing ends. I suggest, then, that the self of workplace identity be viewed as a strong evaluator in Taylor's sense. Such a person requires a complex informational base in order to make decisions about one's occupation, decisions that bring into play the four dimensions. Needless to say, the precise 'mix' between, say, engagement and knowledge will depend on the requirements of an occupation under consideration. The agent is deliberating partly on which workplace identity seems best to suit his or her preferences and also – and crucially – the extent to which he is able to develop an appropriate set of value commitments or set of knowledge-driven competencies. The informational set is complex, not least because questions of pecuniary reward and holiday entitlement may be at best one factor amongst many. But for the weak evaluator, the latter may assume proportions of great significance.

A useful way of interpreting the idea of workplace identity that we have been elaborating is through the concept of capability, drawing on the work of Amartya Sen. When he first theorised the concept of capability, Sen suggested (in the context of asking questions about social redistribution) that perhaps we should focus not so much on goods and resources as what people could actually *do* (Sen 1982, p. 365–367). This idea was further theorised by Sen in terms of 'functionings' or modes of being and doing. The idea is that a capability can enable a range of possible functionings (Sen 1999, p. 74–75). A 'capability set' is therefore, according to Sen, a combination of functionings. The key point here is that there is no one-to-one correlation between capability and functions – capabilities enable a range of functionings. It follows that the development of capabilities has an empowering dimension: capabilities enable persons to do more with their lives in terms of potential functionings. For Sen, the concept of capability therefore includes a normative dimension that goes beyond standard human capital theories: a capability set becomes an index of freedom and well-being.

In terms of workplace identity, then, there is a complex capability set that encompasses values, social engagement, intellect and performance which enable a range of functionings. Capabilities in this normative sense do not prescribe functionings but provide *opportunities* for functioning (Sen 1993). What Sen's thoughts on capability suggest is this: that the development of workplace identity need not be thought of in terms of developing a set of instrumental skills and attitudes aligned to human capital requirements, entirely divorced from questions of well-being. For Sen, the development of a capability set is central to human well-being, and so, for us, the development of workplace identity is also central to occupational well-being.

Thus, workplace identity can be explored and developed through functionings afforded by a capability set across the four dimensions of identity. In some ways, this account of capability overlaps with Winch's account of 'occupational capacity' which encompasses 'both theoretical and practical knowledge, together with the exercise, by the agent, of autonomy and responsibility' (Winch 2010, p. 192). And elsewhere in his book, Winch makes clear (p. 79–80) that such a capacity also includes the normative activities of interpretation, justification and explanation. However, I am concerned about the development of workplace identity that needs to go on before a full occupational identity is inhabited by the agent. Capabilities enable the development of an identity *in transition* towards the adoption of an occupational role.

Developing Workplace Identity

We can now see that lifelong learning programmes constructed along narrow employability lines (equipping learners with ITC skills, business skills and technical competencies) will fall short. Such programmes will at best encourage the formation of only partial workplace identities because certain crucial aspects (e.g. normative capabilities orientated towards exploring values and engagement) of possible future workplace roles will be lacking. Moreover, a lifelong learning which *does* take seriously the role of self-reflection in the development of identity for those whose lives in transition will need to go beyond empiricist-based reflective learning (see Kolb 1984). 'Reflection on experience' is not going to take one too far if one's experience has been at best mixed and drawn from a relatively narrow range of functionings. Thus, it may be that a lifelong learning that actually does contain elements of more traditional liberal learning may facilitate transition. The reason is that the range of experiences required in order for an agent to think through the four dimensions of identity may need to be enhanced. What the enthusiasts of 'learning through doing' sometimes fail to understand is that liberal learning may actually serve to *increase* the ambit of experience. Philosophy, literature and history (the traditional staple of liberal learning programmes) serve to expand horizons: experiential learning serves merely to confirm experiences already undergone.

Some of these considerations also apply to workplace learning as well. Of course, it is perfectly true that much of the literature on workplace learning has left the behaviourist training model well behind. For example, the role of *integrated* learning (reflecting occupational capacity) has been termed as 'organic learning' and seeks to structure experience in terms of reasons, values and motives (Beckett 1999, p. 86–91). However, I would suggest that when workplaces are undergoing transition which has implications for changes to workplace identities, then learning and reflection may require the agent to step outside his or her customary role and examine the changing nature of that identity, using the four dimensional concept of identity

as a framework. And that may require, as I have argued, learning some philosophy or history or literature. The reason for this is that because distance can aid perspective in reflection on one's own circumstances. However, distance by itself may change little if it simply means that the vocabulary customarily associated with a workplace practice continues to be used. What may seem strange or unfamiliar is desensitised and rapidly assimilated into conventional talk. What really needs to happen is that a new vocabulary is learnt as well so that understanding of the piece of literature comes *from the inside.*

For example, take Giuseppe Tomasi di Lampedusa's *The Leopard*. The theme of the book is change. Or rather, as it states, 'to stay the same one has to learn to change'. Yet the book is as far removed from any contemporary change-management scenario as possible, set as it is in Sicily in 1860. The book details the painful compromises that must be made by an aristocracy if it is to survive and even more painfully how persons hitherto treated with disdain (the rising bourgeoisie) now must be treated with respect. At the same time, the book lets us know what does not change – the ferocious rainless summers and the pitiless, rocky, inhospitable earth. And then, towards the end of the book, we are shown some of the characters in their old age, at the turn of the century, and how they themselves view the changes that have occurred in their lives over the years and how for them some of the struggles, once deemed important, now appear petty and distant. The feeling created at the book's end is one of resolute survival tempered by a strong sense of fragility. Now, I suggest that when change comes to the workplace – as it always does – we will be better prepared for it through a reading of *The Leopard*, but in order to achieve this, we must take ourselves out of our times and firmly immerse ourselves in the mid-nineteenth century in Southern Italy. We will find doing this, in the end, both more enjoyable and more instructive than any number of books on change management.[2]

Once we embrace an enriched role of workplace identity in the way I have described (aided powerfully by the reflections of Chris Winch), then we can start to take a broader, richer view of what workplace learning might involve. And we might also start to learn that sometimes the best way to think about work is to get away from it completely for a time.

[2] I give some more examples as follows:

1. Aristotle's account of phronesis and why, to be a practical man (or woman) of action, you need to also reflect on your values.
2. Hegel's dialectic of recognition and how this forms the basis of respect in the workplace.
3. J.K. Galbraith's *The Great Crash* (an account of hubris in the workplace).
4. Nietzsche's account of asceticism and the role of self-denial: what part does this play in the ethics of the workplace? See *Beyond Good and Evil*.

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Part II

Chapter 6
Ontological Distinctiveness and the Emergence of Purposes

David Beckett

Introduction: Beyond 'Mere Castles in the Air'

In John Dewey's little book, *Experience and Education* (1938), there is a very enlightening chapter directing educators' attention to 'The Meaning of Purpose' (Chap. 6).

Here, Dewey is exploring the learner 'as a participant in the formation of processes which direct his activity' (p. 67). For Dewey, purpose arises from impulses or desires, which direct us towards an 'end-view', which he defines as 'foresight of the consequences which will result from acting upon impulse'. Accordingly, this foresight requires 'objective' awareness of one's condition or circumstance, and, for this, it is essential that the significance of previous experiences be borne in mind. However, 'in unfamiliar cases', significance is harder to establish. We must, in all cases, 'go on to form a judgement' (p. 68) of what is objectively significant. A purpose is what translates all this into a plan, or 'method of action', which inevitably involves others.

Without such a purpose, 'wishes are mere castles in the air' (p. 70). This translation of wishes or desires into action is a social experience: 'a co-operative enterprise, not a dictation'. In Dewey's analysis of schooling, both 'traditional' and 'progressive' teaching will give due recognition to objective significance of knowledge and to the desires and impulses naturally arising in human (particularly children's) experiences. Progressive teachers will emphasise the 'reciprocal give-and-take' between teachers and learners since 'the essential point is that the purpose grow and take shape through the process of social intelligence' (p. 72). For Dewey, then, purposes are emergent from the exercise of socially intelligent action.

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Ontologically Distinctive Properties

This chapter is focussed on the 'reciprocal give-and-take' by which purposes 'grow and take shape', not in school classrooms, nor indeed in any formal educational setting, but rather in the messy adult workplace, where education as such is not the main purpose of the enterprise and perhaps where even learning has a low priority. Instead, commercial, professional or strategic success is typically the 'end-view'.

In these workplaces, acting upon impulse or desire, alone or in concert with others, is risky. So purposes marshal these into activities of 'significance' for particular contexts. We are all caught up in the 'purposes' where these are organisational or institutional or professional missions, visions, ethics and so on—these are, in Deweyan terms, plans or 'methods of action', which ground what could be 'mere castles in the air' into a managed, collective and 'socially intelligent' set of activities. Such purposes sort out what is significant activity—to be pursued collectively—from the less or insignificant activity, which, like a castle in the air, floats up and away.

But the curiosity is in just how purposes emerge amongst the significant activities we share at work. What is the 'reciprocal give-and-take' that generates a purpose, and how does it do so? One way to address this is to regard a 'purpose' as an entity with properties, which are themselves emergent. Here, we are helped by epistemologists DeVries and Triplett (2000), in a Glossary, who define 'emergent properties' as:

> The often murky but persistent idea that, in at least some complexes (such as organisms) some of the properties of the complex as a whole are (1) genuinely novel; or (2a) unpredictable…or (2b) not reducible to…the properties of the parts; or (2c) not explainable by the occurrence of the properties of the parts. The notion of an emergent property is not that of a property, the initial temporal instantiation of which succeeds the temporal instantiation of other properties, but of *a property that is in some way ontologically distinctive from the kinds of properties true of the parts of the whole*. (p. 183: emphasis added)

Murky but persistent indeed! On the one hand, it is easy to agree with (1)—that a 'genuinely novel' purpose can emerge from the complexities of the adult workplace. Indeed, the rhetoric of successful leadership and management narratives—the 'Seven Habits' literature, for example—often amounts to just this eulogising of the novel (dressed as the 'innovative'), as if it was self-evident. Hindsight can justify this ascription of innovation to an outcome, once it has been judged as worthy, but this is in itself no advance on Dewey's 'mere castles in the air'. There is nothing to 'novelty' as a criterion of emergent properties in an organisational or professional or institutional purposes other than a recognition, retrospectively, that a 'wish' turned out to be the right one to have. Dewey rightly warns that wishes, or desires, in themselves cannot shape purposes. So the 'genuinely novel', as a criterion of an emergent property, fails to advance the analysis of 'purpose'. The quest for what is 'ontologically distinctive' about emergent properties cannot stay with what is simply new, or innovative.

However, DeVries and Triplett's other criteria (2a, 2b, 2c) are more promising: emergent properties are those which arise unpredictably, or, irreducibly, or, inexplicably through the properties of the parts of the complex *as a whole*. These three criteria are interestingly apparent in much of daily workplace experiences, for most adult workers, as I will now explain.

Unpredictability

Unpredictability arising in the complex as a whole has been the basis of what is called 'contingency' management for the last couple of decades. Here, leadership and indeed most workers' daily workplace experiences are characterised by happenstance—'brevity, fragmentation and oral communication characterise the work' stated Mintzberg (1989; cited in Beckett and Hager 2002, p. 19). Whilst he made this claim of managers, we can broaden it out to most others: workers use e-diaries, e-mails and ever faster and more fragmented interactions, often 'multitasking'. The workplace is an increasingly just-in-time environment where we are bombarded by new information and social technology (Facebook, Twitter, iPhones, etc.). The intensification of work and the invention of new technologies have exemplified Dewey's 'give-and-take' relationship between our wishes (which he acknowledge in children) and our plans (which he acknowledge teachers should have). Unpredictability is a central feature of contemporary work life for most of us, and this has been reciprocally constructed at the same generic level of complexity as the purposes of any particular organisation, institution or profession. Purposes that emerge at work are not predictable by the properties of the parts of those workplaces, where 'parts' are taken to mean the reciprocity between humans, technologies and happenstance. Things just crop up and require nimble, creative and tailored responses, which generate purposeful activities to pursue them to achievement or completion. Oftentimes, a 'plan' is left well behind, as a new plan emerges from the murkiness of workplace complexity under pressure.

Irreducibility

The irreducibility of properties of workplaces to the components of its variables is apparent, for example, where immersion in a workplace is immediate, such as the 1-year 'co-operative' placement of a business-course university student in an accountancy firm. In a wide-ranging conceptual and empirical review, entitled 'Toward an Epistemology of Practice', Raelin (2007) states:

> For years, researchers of work experience programs such as co-operative education and internships, have been puzzled to know what is in the 'black box of co-op' that seems to give its participants intrinsic career advantages. The secret sauce might well be self-efficacy. [This is] one's confidence in executing courses of action in managing a wide array of situations. (p. 508)

Drawing on Bandura's social learning theory (1986), Raelin further states that

> Self-efficacy expectations are considered the primary cognitive determinant of whether an individual will attempt a given behaviour…and is known to have considerable explanatory power [for] self-regulation, achievement strivings, academic persistence and success, coping, choice of career opportunities, and career competence…Perhaps its most noteworthy contribution is its empirical relationship to subsequent performance. (p. 508)

Raelin's empirical work on this at Northeastern University has investigated manifestations of self-efficacy, 'such as exhibiting teamwork, expressing sensitivity,

managing politics, handling pressure', which he summarises as 'attending to one's beliefs in his/her command of the social requirements necessary for success in the workplace' (p. 508).

This is especially interesting because what appears at first blush to be an account of the irreducibility of an individual's learning from her or his immersion in a workplace (with co-op programmes one obvious structure) quickly implies the sociality of those workplaces: the 'self' in 'self-efficacy' is a socialised, feeling, reciprocal self, where, at and through work, the 'social requirements necessary for success' are engaged. This is what Dewey would call a series of give-and-take judgements of the 'significance' of wishes and desires. Success through achievements judged as significant at and for work is not solely located in the subjectivity of 'self-efficacy'. Rather, self-efficacy is itself located in the reciprocity of experiences which are holistic. At and through daily work, individuals learn to make judgements (the 'primary cognitive determinant' of Bandura's theory) which are embedded in the sociality of the work environment. Co-op programmes are but more intense, hence more vivid, immersions in initially strange learning environments. We learn, not from the properties of the parts of the environment—not from skill-acquisition, or inductions or even from work roles. Rather, we learn from all these as they are experienced through all of cognitive, the social, the affective and the psychomotor 'domains', as our purposes evolve in the give-and-take of daily work life.

Inexplicability

In many workplaces, seeking an explanation for what is going on, in the properties of the parts, is simply not helpful. The emergence of purpose amidst the complexity of surgery is an example because the ethos of such practice is predominant. Bleakley's empirical studies of the 'micro-politics of practice', in operating theatres, draw on *phronesis* as a virtue ethic which has a 'distributed quality that may be constituted through intentionally collaborative practice, or is an *emerging property* of a complex, adaptive system' (Bleakley 2006, p. 305, my emphasis). Following Bleakley, my claim is that the relevant ethic is not explicable by analyses of the various individual ethical attributions of the parts (the medicos, the nurses, the patient, the utility of technology, the kind of hospital or surgical unit and so on).

Where surgeons, nurses and other staff co-operate around an operating table, then, Bleakley (2006) states:

> the driver for good communication in the team need not be located in personal agency, but rather in sensitivity to an environmental imperative. Through 'education of attention' of team members by the clinical field – the practice context and micropolitical structure – an ethical imperative is addressed. (p. 307)

As I summarised in Beckett (2012):

> For Bleakley, the hospital environment is, literally, a 'hospitality' environment. Teamwork in the operating theatre is not just then a useful adult learning skill, but more profoundly a micropolitical practice, tightly contextualized to an ethical perspective that is in fact the

> imperative of that practice: patient well-being and health, to be blunt. The unit of agentive analysis for Bleakley in such a setting is the socio-cultural, where the collective is not the aggregation of the individualities of those around the operating table. Rather, to be around the table in the first place, individuals have found themselves, albeit willingly, immersed in an 'environmental imperative', in this case, hospital-ity, or caring for the Other.

We have now investigated three criteria, each of which could, according to DeVries and Triplett, independently specify what is ontologically distinctive about emergent properties of complex phenomena. Accordingly, I claim that it is plausible that complex phenomena can demonstrate emergent properties which are marked by:

- Unpredictability—which is often creative
- Irreducibility—which is often holistic
- Inexplicability—which is often normative (i.e. value-driven)

I have shown, with a theory-rich empirical example in each case, how adult workplaces can often instantiate complex manifestations of emergence. DeVries and Triplett presented these as diverse criteria of emergence (a or b or c), where, to be blunt, the whole is greater than the sum of the parts. But I want to aggregate these creative, holistic and normative properties of a workplace, claiming that this aggregation can generate 'ontologically distinctive' and, importantly, emergent educational purposes. I turn now to this analysis, and, after that, the chapter then takes up the cogency of these criteria of ontological distinctiveness or some other complex human phenomena apparent in and through work: capacities, identity and agency.

The Significance of Purpose

Emergent properties are a 'murky and persistent' notion, stated DeVries and Triplett, earlier, and subsequently, I have tried to introduce some order and a workplace learning focus. But the aggregation or convergence of the creative, holistic and normative is itself messy and slippery. It is very difficult to hold together the variety of purposeful learning activities apparent in formal classrooms and training rooms, not to mention many regular work sites, such as offices, factories, wards and community houses, where the learning is informal and often capricious. However, this messiness is essential to any analysis of the emergence of purpose. As Wittgenstein (1953) put it:

> We have got onto slippery ice where there is no friction and so in a certain sense the conditions are ideal, but also, just because of that, we are unable to walk. We want to walk so we need friction. Back to the rough ground! (p. 107)

The rough ground of our practices when we find ourselves responsible for the learning of other people (in this case, adults in a variety of settings) is rough—and messy—because our purposefulness is also rough—and messy. Educative practices in workplaces not themselves committed to education as their main purpose (i.e. hospitals, corporations, industries) entail sensitivity to perpetual reconsiderations and reconstructions in response to emerging evidence and experience and aim to

produce a tangible (demonstrable) outcome. Outcomes, targets and purposes are not synonymous, since an outcome has a sense of mere arrival, irrespective of whether it was intended or calibrated; a target has a sense of calibration, irrespective of whether it has been achieved, nor whether it was intended; and a purpose has a sense of intended 'end-view', irrespective of what or how is pre-specified on the way. This is why Dewey is correct to emphasise the reciprocal 'give-and-take' in shaping a purpose, as, for outcomes and targets, ends and means are more tightly yoked.

So the formation of purposes of the 'murky' kind we seek is messy—because workplace practices are messy. What is important is to start and stay with the 'rough ground'—the daily doing of work which is enmeshed in the routine and the non-routine, the highly specific and the utterly generic and the technical as well as the ethical contentious. In fact, it is the second term in each of these pairs which offers the most for the articulation of purposes at and through work. Whilst the routine, the specific and the technical are necessary for any account of the purposes of a workplace, they are not sufficient in that they cannot go much beyond the ways things are done (in the present) or were done (in the past). Workplaces increasingly deal in the non-routine, the generic and the normative, and I have drawn this out in the previous section, by claiming that workplace learning needs to take the creative (the non-routine), the holistic (the generic) and the normative (the values-driven) as central to the formation of purposes through their emergence in the daily complex properties of workplaces.

In Beckett (2004, 2009), I drew upon Brandom (2000) to help me advance the analysis of processes at work which generate practical judgements. Without going through the details of that analysis again, let me here simply rely on his use of the fundamental distinction between the pragmatic *expression* of knowledge claims, rather than on their *representation*. This distinction is crucial to understanding the purpose better, so it is worth drawing on a little of Beckett (2004):

> Instead of grounding knowledge in the representation and refinement of a state of the mind… inferentialists like Brandom (and myself) argue for 'a form of linguistic pragmatism that might take as its slogan Sellars's principle that grasping a concept is mastering the use of a word' (Brandom 2000, p. 6; he acknowledges a Deweyan, Jamesian and Wittgensteinian heritage). Brandom's expressivism – this 'usage' - sees the mind not as a mirror (representing what is inner and is outer), but, similar to a lamp,
>
> *…making explicit what is implicit. This can be understood in a pragmatist sense of turning something we can initially only do into something we can say: codifying some sort of knowing how in the form of a knowing that. (p. 8)*

As our old friends DeVries and Triplett (2000) summarise:

> According to Sellars, we know *first* the public world of physical objects. We can extend that framework to include persons and their language. What we know *best*, however, are those beliefs that are the most well-supported pieces of the most coherent, well-substantiated explanatory framework available to us…our best knowledge will be provided to us by the efforts of science. *The picture of knowledge created is that of a communal, self-correcting enterprise that grows from unsophisticated beginnings toward an increasingly detailed and adequate understanding of ourselves and the world.* (p. xlvi, emphasis added)

Dewey's 'end-view' requires, under this analysis, sustained 'give-and-take' engagement in conversations and argument which themselves arise from 'doing' the work. The 'doing' is intelligent and social—not the solo reflections sorted out or 'presented'

in the individual mind, then 're-presented' in public discourse. Brandom's expressivism is Wittgensteinian through and through: there is both the recognition of the rough ground of daily practices in the give-and-take of expressivism as well as the dismissal of the privacy of language (in which the outer world 'reflects' as if in a mirror of some private inner state of mind). For expressivism and for the inferentialism that follows from it, language, or rather, discourse, is ineluctably public and social. It is the speech act that expresses meaningfulness and in the 'communal self-correcting enterprise' that follows from what we know first, we agree on what we know best.

In Dewey's terms, this means weighing up the objectivity of inherited knowledge such as science and its significance, against our wants and desires, in a socially intelligent judgement that shapes a purpose. In this way, our particular purposes are established (as Brandom states, 'codified') through reciprocal 'self-corrections'—or 'inferences'—constituted in the doing of work in the sociality of workplaces.

Inferentialism provides a theoretical underpinning for 'ontologically distinctive' properties that are not merely more general properties with antecedent components: they are an emergent entity, or phenomenon or process. In brief, the shaping of a purpose is the process within adults' workplace experiences of making judgements constituted in creative, holistic and normative experiences (and also by the routine, the specific and the technical). This purposeful process exemplifies a complex and genuinely 'emergent property'—an ontologically distinctive feature of the world.

Pushing on with Purpose

Whilst we are often told 'there's no time like the present' (and therefore *carpe diem*), the emergence of purposes as ontologically distinctive features of the world of adult work provokes serious consideration of how these purposes play out. We need, now, to look beyond just the present to the way time is experienced at and through work, as a continuum, *across which* purposes emerge. But how are we to think about temporality and human activities?

In a comprehensive account of social agency, Emirbayer and Mische (1998) build their analysis of the future upon the past:

> [In contrast to Bourdieu and Giddens]…we maintain that human actors do not merely repeat past routines; they are also the inventors of new possibilities for thought and action. [Actors] distance themselves [from the past, using capacities] rang[ing] from the strongly purposive terminology of goals, plans and objectives to the more ephemeral language of dreams, wishes, desires, anxieties, hopes, fears and aspirations…[W]e term it the *projective* dimension of human agency. (p. 984)

Projective agency needs careful treatment, lest the wishful thinking of 'mere castles in the air' reappears. Indeed, Emirbayer and Mische take end-in-view very broadly because for them:

> It's potential inventiveness can yield responses as benign and mundane as the projects to grow a garden, to start a business, or to patch up a family relationship, or as sweeping and destructive as the project to establish a 1000-year Reich. (p. 985)

The projective involves *projects*, and

> …the formation of projects is always an interactive, culturally-embedded process by which social actors negotiate their paths toward the future, receiving their driving impetus from the conflicts and challenges of social life. The locus of agency here is the *hypothesization* of experience, as actors attempt to reconfigure received schemas by generating alternative possible responses to the problematic situations they confront in their lives. Immersed in a temporal flow, they move 'beyond themselves' into the future, and construct changing images of where they think they are going, where they want to go, and how they can get there from where they are at present…Projectivity is located in a critical mediating juncture between the iterational [the past, the habitual], and practical-evaluative [the present, the judgmental] aspects of agency. (p. 984)

Notice the Deweyan flavour of this analysis: immersed in 'generating alternative possible responses' is the same as Dewey's 'judgements' of 'significance', drawing upon the past and the present, and driven by images that are more less desirable and shaped by 'social intelligence'. In Beckett (2012), I locate these experiences in workplaces which encourage the projective possibilities of the work, which literally 'work up to something… [because] Where groups can plan, implement and evaluate shared activities, there is a greater sense of commitment and indeed overall workplace engagement'.

Underpinning these workplace experiences are the more generic experiences we all as adults experience, and there is substantial synergy between the claims made for the projective 'hypothesisations' that occur in the workplace and the claims made about better adults' learning. Distinguishing between children's and adults' learning was crisply and famously done by Malcolm Knowles (1970), who was not a philosopher but gave significant shape to the field of practice called 'adult education', at least in North America. His 'andragogy' (not 'androgogy') theorised adults' learning through the explicit utilisation of experience. Adults learn best, according to Knowles, when they

> learn how to take responsibility for their own learning through self-directed inquiry, how to learn collaboratively with the help of colleagues rather than compete with them, and, especially, how to learn by analyzing one's own experience… [This] is the essence of the human relations laboratory. (1970 p. 45)

Self-direction, which has been a strong feature of adult learning scholarship in the throughout the last forty years, is obviously closely related to Bandura's 'self-efficacy' but, along with collaboration and experiential analysis, is regarded as powerfully supporting collective, purposeful learning, which is our current interest here. Adults (and, since the 1970s contrast with children's learning is no longer made) indeed, all humans, learn best in 'andragogical' circumstances. But what some have called The Project of the Self (Beckett 2010) plays out not in individual subjectivities, but in collective contexts, such as workplaces, where selfhood emerges from the dynamism of the relationships between each other.

Even the central notion of self-reflection ('how to learn by analysing one's own experiences' in Knowles terms) no longer has the Cartesian overtones it once possessed. The 'self' of *cogito ergo sum* has been completely replaced by a radically distributed selfhood, in which the materiality of the embodied person

is one element in the 'I' of identity. For workplace learning, this is especially important, because learning who one is, in, and through, the doing of the work, is inevitable, and ontologically distinctive. The emergence of practitioner identity is a manifestation of a set of properties, constituted in the give-and-take of daily work life. Who one takes oneself to be emerges and retreates in fluid, variable experiences, typically at work, but also in all aspects of life—in the home, the community, and the nation-state. We are variously constructed, and reconstructed, by the nature and variability of our embodied conscious relationships. Across a single day, we can sense our various identities ebbing and flowing as we move around—as partner, parent, citizen, colleague, consumer, professional and so on.

What self-reflection means in such a distributional, relational world is contestable. In his review of *Beyond Reflective Practice: New approaches to professional lifelong learning*, Kotzee (2010) mentions the contributors' 'nostalgia for [reflective practice's] lost potential' (p. 183). He is sympathetic to 'reflection', simply meaning 'thinking about things' and seeking improvements to activities as a result. Kotzee concludes, tellingly, that what is required, then, is

> …the study of the real methods people use to make common sense inferences and decisions (that we find in, for instance, studies of critical reasoning and decision-making in psychology and – to some extent – in philosophy). (p. 183)

'Common-sense inferences and decisions' are abundantly apparent in daily work. My earlier inferentialist account of Brandom's expressivist epistemology (where what we know first—as representation—is not what we know best) is targeted at the power of learning from the collective and the contingencies of daily work life. Reflective practices emerge—via inferences—from the 'communal self-correction' of the groups and identities (the 'many') in which an individual (the 'one') is immersed or embedded.

Accordingly, serious and consistent attention to the emergence of give-and-take, or relationality, will establish that it is amongst these inferential practices that workplaces (not individuals) will embody reflection. The ascriptions and, indeed, the *inference*s of practices as more or less 'self-efficacious' (Bandura) or 'self-directed' (Knowles) will emerge in the sociality or collectivity of the workplace. From these communal inferences, identities may then accrue to the achievements of an individual practitioner within it. You become more or less of a tinker, tailor, solder and sailor because of your inferential construction and deconstruction by participating in communities of practice/practitioners, as Lave and Wenger (1991) have so influentially argued.

Workplace practices, and especially 'malpractices', are derivative upon communal self-corrections which have melded socially reflective experiences with substantial identity construction. And this reciprocity, or give-and-take, emerges—is ontologically distinctive—*as purposeful activities are undergone* (around an operating table, on the factory or shop floor or in the staffroom or classroom in a school). My claim is that these *relational practices fuel the emergence of purposes, and further, that we learn best from the 'projective' nature of these practices.*

Projective Practices

What do these practices look like? Earlier, the case was made for the 'hypothesisation' of experiences (cf Emirbayer and Mische 1998, p. 984), which plays out in the future, as the 'projective dimension' of time. Team-based activities lend themselves to projective experiences because quite often it is, literally, a 'project' which is the reason for a team's existence: there is a problematic future which requires some resolution. What is emergent are the give-and-take (reciprocal) practices which cannot be predicted, nor reduced nor explained other than by the norms of the context. They can be 'communally self-corrected' but only as they emerge. What will be brought to those self-corrections will be judgements of the significance of the practices, and these will, as Dewey reminds us, draw upon the past. This is not, then, the 'emergence' of the mindless endorsement of mere castles in the air. Nor is it an acclamation of the merely 'innovative' as such. These truly emergent and purposeful practices are genuinely ontologically distinctive because *they will rigorously, that is, through inferences amongst groups of workplace practitioners, advance what is creative, holistic and normative, in the daily conduct of work itself.*

Even fine-grained activities can show the emergence of purpose because they are intentional. A colleague can point out to what needs to be done, or could be done better or is better done in a particular way. To 'point out' is both a linguistic and a behavioural activity. That is, it can be a speech act, or simply tacit—a way of showing without saying anything. As Luntley (2008) puts it:

> If the activities in question in pointing, using an example, saying things like 'and so on…' are intentional activities, they are activities that exhibit understanding…that are conceptually structured…it is not training that provides the platform of resources to respond to reasons. That platform is supplied by the prior conceptual understanding manifested in the pupil's [or any age learner's] *capacities to undertake a variety of intentional activities*. (pp. 702–703, emphasis added)

Pointing and saying 'and so on' are ways of showing the *projective*. So is puzzling about the problem and trying to find a resolution of it. But so also is being training (skilled up) in how to go about something. There are abundant adult learning and assessment practices which provide structured opportunities for inferences amongst one's peers with an 'end-view', or purpose which is creative, holistic and normative. Mentoring, coaching, role playing, simulations and off-site reflections via journaling are examples. Project-based working (quite apart from the deliberate attention to learning) is typically of this kind, and within that, workers can develop all many of reflective, strategic and behavioural practices which, through intentional activities (such as meetings, conversations, skilled performances), build towards resolutions, arrivals and achievements instantiating purposes.

For example, an advertising agency bidding for a contract forms a team including draughting, copy, audiovisual and marketing expertise and generates something distinctive from its combined efforts. Getting the new advertising account—gaining the client—is the intended outcome, within which myriad inferential fine-grained

activities establish the purposes of these activities. The 'acting intentionally' is not in this case educational, nor is it even explicitly 'learning', but nonetheless, serious learning occurs as an integral and implicitly part of the team's activities. It is inevitable that in making the bid, or 'pitch', for the account that learning will have occurred. *This project work is a manifestation of projective purpose*. The team shapes up their bid by inferentially establishing on the way through, with 'give-and-take (reciprocally), these sorts of understandings: 'we are agreeing on this…', 'we do find that difficult to grapple with' and 'we will need to do more work on the other…'.

Luntley is correct to emphasise the importance of intentional activities that 'exhibit understanding'—this exhibition is expressive, and it is intelligent. We show *how* we are going, *as* we are going along, in some intentional activities, which are shaped, as practices, by their shared and—as I argue throughout this chapter—their emergent purposefulness. Projective practices, like those of the team in the advertising agency bidding for the new client, are ontologically distinctive learning opportunities, which embody the 'this, that and the other…' of daily work, harnessed to a shared projection from experiences and expertise from the past and the present, in favour of the future.

Building Capacities

Capacity-building is a prominent feature of educational enterprises nowadays and much given to traditional goal-setting and mechanistic end-views. National governments identify 'skill-shortages' and have no difficulty in naming targets, with various performance indicators on the way through. For example, the Australian government has specified that 40 % of Australian 25–34-year-olds will have a university degree by 2025 (Suri and Beckett 2012), and we are well on the way towards that target. This is a proxy for various generic human capacities which, it is claimed, will advance individuals' employability and the nation's economic performance. In contrast to that systemic hyper-managed approach, at the more subjective, 'capacities to undertake a variety of intentional activities' (cf Luntley, above) provide a basis for the emergence of purpose, as I have argued in previous section.

Somewhere in between the macro and the micro, capacity-building can be approached at the organisational or professional level: what capacities are needed for expert practices amongst networks of peers? In her recent book, Edwards (2010) investigates:

> …the relational turn in expertise as professionals work in and between work settings and interact with other practitioners and clients to negotiate interpretations of tasks and ways of accomplishing them. The central argument is that the resources that others bring to problems can enhance understandings and can enrich responses. However, working in this way makes

> demands on practitioners. At the very least, it calls for *an additional form of expertise… based on confident engagement with the knowledge that underpins one's practice as a social worker or nurse, as well as the capacity to recognise and respond to what others might offer*. (p. 13, emphasis added)

Confident engagement and a capacity to recognise and respond to what others might offer are features of working together in a team environment—on a project, often—with the many associated capacities often also described over the past two decades as generic competencies: communicability, problem-solving, conflict resolution, literacy, numeracy and so on.

Building these capacities would entail explicit attention to the quality of the 'give-and-take' apparent in the projective practices—within which there are many learning activities—as I have discussed in the previous section. Edwards' book details several sustained research programmes in Europe where the building of capacities towards expertise has been achieved. Her focus throughout, based on Cultural-Historical Activity Theory (CHAT), is located at the professional or organisational level of analysis, with considerable attention to the purposeful intentionality of those within such sites of practice. Quoting Leont'ev (1978, p. 62): 'It is exactly the object of an activity that gives it a determined direction' (p. 68), she goes on:

> …he proposed that the object motive, that is how the object of activity is interpreted by participants in the activity, calls forth specific responses which reflect the values and purposes of the dominant practices inhabited by participants and the activities in which they engage. (p. 68)

Edwards' example of this is of a teacher who will look at a student's development trajectory and interpret academic performance, and of a social worker looking at the same trajectory in the student and who may interpret 'signs of vulnerability and risk of harm' (p. 68). Leont'ev's 'object motive' is a psychology-based intentionality, 'determining' or interpreting some aspects of the immediate world akin to Dewey's judgements of purposes, arising from the 'significance' the world has, in the present. For Leont'ev and for Edwards, what follows from the object motive is motivational according to the norms of the 'dominant practices inhabited by participants and the activities in which they engage'. The 'object' is thus not a fixed 'purpose' in the traditional sense of a goal or target. It is a way of orienting oneself to the field of practice—of locating oneself in a community of practitioners. That it is 'interpretive' through the norms of the practice shows it to be a driver of actions, not a Deweyan 'end-in-view'. The object motive is an ontological dynamic which is distinctive in its operations. It shapes how a student, a worker or a colleague is perceived. It is a stance on the 'direction' of practice from within the norms of that practice, so it is fluid. Object motives, albeit from psychology, are therefore conceptually congruent with the emergence of purposes, as I have presented it in the preceding two sections of this chapter. In brief, an individual's capacity-building is embedded within the object motives of her or his peer practices, which all the participants as practitioners 'inhabit'.

Identity and Agency

Capacities are part of who we are, at and through our work. They get us moving—'object-motivated'—we can say. Moreover, I make a larger claim. Capacities help to make us ontologically distinctive—how (and how well), and with whom, we do our work makes us who we are, and so identity is an emergent property, spinning off from deep within our evolving purposes. As Edwards sets out:

> …identity is not a stable characteristic, but is dialogical, negotiated and accomplished within activities…which are in turn located in practices. But I suggest it is also more than that. One's identity is also an organising principle for action: we approach and tackle what we think we are able to change and make changes in line with what matters to us: our interests. These interests are culturally mediated, but nonetheless experienced personally in terms of our commitments, standpoints and the resources available to us. (p. 10)

Our interests are experienced personally, that is, subjectively, but their changeability is a matter of give-and-take as our actions within practices evolve. In a world increasingly sensitive to the 'relational turn', our agency is itself in the relational mix. We act amongst the fluidity of daily work (and of course in the more general arena of daily life), so our experience of our agentive selves is itself a component in the construction of our identity. We 'see' ourselves as more or less agentive, depending on the exercise of that 'relational agency'. According to Edwards:

> Relational agency…is concerned with the 'why' of collaboration as much as the 'how'… [therefore] more attention should be given to why people engage in collaboration and what are their 'passionately held motives'. Here we return to the importance of values in professional practices… [these] are woven through the common knowledge that mediate fluid and purposeful responses and are recognised as crucial to how professionals interpret problems in practice. (p. 69)

Value-driven practices are an example of the priority that the normative has in what is ontologically distinctive. In the first sections of this chapter, I argued that it lines up with the creative and holistic as the trio of properties that emerge from what is unpredictable, irreducible and explicable, which defines what is ontologically distinctive. I now claim that identity and agency emerge downstream of the emergence of purposes at and through work. This is not to demean or subjugate our senses of selfhood or agency. The agentive self is not the epiphenomenon of purposeful working experiences. Rather, it is an ontological achievement—a nodal or high-water or milestone marker in the daily swamp of working life. These can accumulate as careers unfold, and the jigsaw puzzle of successes and failures takes shape. But throughout, the 'why' of collaboration invokes mediated response, where the give-and-take of the practitioners amongst their normative activities shapes not only their purposes but also themselves (collaboratively) and their selves (respectively).

Relational agency is ontologically distinctive because, at and through work, it links emergent practitioner purposes with socially intelligent action, and it does so by acknowledging, as central to this linkage, the normative interests practitioners

have in making their 'object motives' clear to themselves and others as the actions unfold. As Edwards (2010) states, 'In brief it involves a capacity for working with others to strengthen purposeful resources to complex problems' (p. 14).

Conclusion

Raelin (2007) gives us the big picture:

> What is being called for is an epistemology that transforms learning from the acquisition of the objective rules of wisdom to one that appreciates the wisdom of learning in the midst of action itself. We need to move beyond the acquisition of formal logic to reasoning and sensemaking that is concurrent with ongoing practice. In this way the conventional task of teaching as imparting knowledge can make room for the more dynamic process of facilitating learning. (p. 513)

In this chapter, I have argued for close attention to a 'more dynamic process of facilitating learning' at and through adults' daily work. Whilst it is fairly straightforward to claim that workplace learning can meaningfully extend current knowledge and well-educated workers, what has not been conceptually explored are the claims that workplaces originate knowledge, by close collaboration and wise judgement when under pressure—not just pressure of time and of productivity, but also under the pressure to align activities with agreed purposes. In fact, it is the confluence of these two kinds of workplace pressure that makes this conceptual spadework elusive.

But if we embrace the messiness of daily workplace experiences as a learning opportunity and acknowledge the murkiness of the notion of ontological distinctiveness, I believe we can make some headway in setting out analyses of how knowledge originates at and through work. Dewey has provided a point of entry to such analyses, where the emergence of purpose has provided a conceptual framework. Yet Dewey, in 1938, in the context of heated debates over traditional and progressive schooling, was not concerned with learning within the pressures of the contemporary adult workplace. By taking a more fundamental approach to epistemology—by moving into an expressivist, non-representational modality—it has been possible to mount an argument for learning inferentially. This has been used to show that knowledge originates at and through work because ontologically distinctive learning emerges through the activities of practitioners collaborating over time on matters of shared concern. Projects are fine examples of this kind of relationality.

I took ontological distinctiveness further by linking the emergence of purposes to capacity-building and then more audaciously, linking this to identity and agency. In this linkage, Anne Edwards' 'relational agency' is a congenial concept, but why so? It seems to me that this term locates our attention exactly, but more rigorously, on where we began: on Dewey's 'reciprocal give-and-take'.

Let me close by spelling all this out, in summary.

I claim that workplaces originate knowledge and that they do so through powerfully purposeful practices which are ontologically distinctive. These purposes emerge with properties that are themselves ontologically distinctive (typically, being creative, holistic and normative) and that our human capacities and our

experiences of our workplace identity (as a knowledge worker) and our agency (as an originator of knowledge) are similarly ontologically distinctive.

We are what we do, and, at work, we become, through the capacities we help generate, contributors to some purposes which emerge, not because these are 'merely castles in the air', or simply novel, but because these are substantively original. I have argued for ontological substance in the quest for epistemological originality.

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Chapter 7
Practice as a Key Idea in Understanding Work-Based Learning

Paul Hager

Introduction

There has been a prominent trend in recent decades for theorising within the arts and social sciences to appeal to human practices as the fundamental bearers of understanding, intelligibility and meanings. This effect of this 'practice turn' is that the once-favoured mental entity concepts of earlier theorising (beliefs, desires, emotions and purposes) are displaced by concepts associated with human practices (embodied capacities, know-how, skills, tacit understanding and dispositions). The practice turn has a strong philosophical lineage including Hubert Dreyfus (2001; Dreyfus and Dreyfus 1986, inspired significantly by Heidegger), Alasdair MacIntyre (1981, 1990, 1994, 1999, strongly influenced by Aristotle) and Theodore Schatzki (1996, 2001, 2002, 2005, 2006, strongly influenced by Wittgenstein). Other philosophers influential amongst practice theorists are Dewey, Brandom and Charles Taylor. As well, leading social theorists (e.g. Bourdieu 1977, 1990; Giddens 1984) have also produced detailed accounts of practice.

The practice turn is evident in diverse disciplines such as philosophy, sociology, history, anthropology, cultural theory and science and technology studies. Not surprisingly, the concept of practice has also featured increasingly in recent writings on education and learning. However, it is noticeable that the term practice is employed in very diverse ways in these literatures, though most writers appear to take the meaning of 'practice' to be unproblematic. Later sections of this chapter will provide an overview of the main different ways in which various writers construe something as a practice. Advantages and limitations of various understandings of the term practice will be discussed. This will lead into an examination of the

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possibilities and limitations for illuminating work-based learning that results from adopting various construals of the term practice. However, before that, it is necessary to be clear about how the term work-based learning is being employed in this chapter. As well, main themes in the evolving literature on the nature of work-based learning will be outlined in order to demonstrate that recent understandings of work-based learning are convergent with notions of practice.

The Scope of the Term 'Work-Based Learning'

The title of this chapter should not be taken to imply that work-based learning is a unitary phenomenon. Rather, the term 'work-based learning' is commonly employed to refer to an enormously diverse and rich range of learning situations. This diversity and richness can be appreciated by considering three distinct dimensions of work-based learning. Firstly, work itself incorporates activities ranging from paid work of all kinds through the many and diverse kinds of unpaid work (e.g. domestic work of all varieties, both institutionalised and non-institutionalised voluntary work, engagement in structured hobbies and recreational activities). Secondly, the learning situations associated with work range across a very crowded spectrum that encompasses very formal learning arrangements all the way through to very informal ones. Heavily formal work-based learning situations include such activities as structured on-the-job training, mentoring and coaching. Here, the emphasis is more on the learning than on the work output as such. At the other end of the spectrum lie the most attenuated kinds of informal learning, learning that is typically an unconscious by-product of engagement in work activity. Examples include observing others' performances, hitting upon a solution to a difficult work problem, etc. In between these extremes, there is a continuum of learning activities that ranges from the partly formal (e.g. planned experiential learning, supervised practice) to the mostly informal (e.g. modelling, imitating). Thirdly, there is wide diversity in other important characteristics of the learning that results from work-based learning situations. This is evident from the following sixfold classification of the different types of workplace learning (Hodkinson and Hodkinson 2004).

Though Hodkinson and Hodkinson themselves focus on *workplace learning* as such, it is evident that each of their categories in Table 7.1 is readily applicable to

Table 7.1 Types of workplace learning

	Intentional/planned	Unintentional/unplanned
Learning that which is already known to others	Planned learning of that which others know	Socialisation into an existing community of practice
Development of existing capability	Planned/intended learning to refine existing capability	Unplanned improvement of ongoing practice
Learning that which is new in the workplace (or treated as such)	Planned/intended learning to do that which has not been done before	Unplanned learning of something not previously done

the diversity of types of *work-based learning* outlined above. Taken together, these three dimensions demonstrate the prolific range of diverse kinds of items that are covered by the generic term 'work-based learning'.

Changing Understandings of Work-Based Learning

The last 35 years have seen a burgeoning of interest in work-based learning and its closely associated cognates, for example, workplace learning. This is evident from the plethora of theories that have sought to explain and understand it. These theories have been advanced from disciplines and fields as diverse as psychology, anthropology, education and organisational studies. For the brief outline that will be attempted here, this plethora of theories can be seen to fall into three distinctive, chronological categories. These will now be considered in turn.

Early Theories Influenced by Psychology

Major contributors to early understandings of work-based learning include Argyris and Schön (1974, 1978), Schön (1983, 1987) and Marsick and Watkins (1990). Rather than considering these and other contributors separately, the following discussion will focus on themes and assumptions that are common across their work. (For a fuller account, see Hager 2011a).

These early theories of work-based learning shared a number of basic themes.

- A Focus on Individual Learners as the Unit of Analysis
  Making the individual learner the unit of analysis serves to bring with it a set of accompanying assumptions about learning that readily pass unnoticed since they seem to accord with unreflective 'common sense'. The central accompanying assumption that seems to be no more than 'common sense' once the primacy of the individual learner is accepted is the idea that learning has a very specific location, namely, in the mind or body of the individual learner. In turn, this assumption about the location of learning clears the way for further, seemingly, inevitable assumptions. These are that acquisition and transfer are literal descriptors of the learning process and its applications, rather than being mere metaphors about learning, as later writers would maintain. On this view, the task of teaching looks straightforward – it is to impart (or transfer) learning to individuals. Learners need to acquire (and, thus, possess) learning. However, as more recent theories of work-based learning argue, each of this whole set of 'common sense' assumptions is very dubious.
- Primacy Accorded to the Cognitive Aspects of Performance
  Performance of work is theorised as consisting of thinking (or reflection) followed by this thinking or reflection being applied to the particular work situation.

The rational, cognitive aspects of workplace performance are thereby given priority. These theories privilege human consciousness and intention, whereas, later sections will show, more recent theories emphasise whole person, embodied learning and performance. Even Schön, whose epistemology of reflective practice rejects the gap between thinking and its application, still focuses his account firmly on the rational, cognitive aspects of performance.

- Learning Viewed as a Product
  Learning is taken to be a product or 'thing'. This perception is encouraged by uncritical employment of the acquisition and transfer metaphors. It is a short step for the mind to be thought of as a 'container' of 'knowledge as a type of substance' (Lakoff and Johnson 1980). Thus, learning, that is, *acquisition* of knowledge or skills, is akin to entities accumulating in a container, from which they can later be *transferred* or applied as required. For propositional learning or mental skills, the mind is the relevant container. For physical and psychomotor skills, the body, including the mind, is the container.

  Viewing learning as a product or thing that can be located in various containers suggests the further important assumption that learning is independent of any particular container (learner) or of the circumstances in which it entered the container (the learning context). The assumption here is that multiple minds (learners) can each acquire the same thing (e.g. an item of knowledge, a skill) that is independent of any one of them or of the circumstances in which they acquired it. Regarding learning as an independent thing that can move across space and through time accords well with traditional disciplinary models of knowledge (or learning), for example, mathematics as a world independent of the world of humans. Crucially, later theories of learning reject the independence assumption for important cases of learning, cases that include much work-based learning.

  More generally, early theories of work-based learning can be said to treat the concept of learning as being unproblematic. This means that work-based learning is assumed to be closely akin to learning in formal education situations. As we will see in the next section, later theories of work-based learning, and of learning more generally, are marked by a readiness to problematise the concept of learning.
- The Significant Role of Social, Cultural and Organisational Factors in Work-Based Learning Is Underestimated
  If learning is viewed as a product or thing that is independent of the learner, it will seem equally plausible to regard it as independent of context. This has been a widely adopted assumption. The learning is a separate 'thing' from the context in which it occurs. Of course, few theorists would assert that context has *no* influence on learning. Clearly, access to better teachers and/or resources can enhance learning. However, the theorists in this first broad category of work-based learning theories generally subscribe to a weak form of contextuality that can be stated as follows:

  > …. *weak contextuality* can be characterized as the claim that the content of learning is ultimately independent of context. This means that while context can influence the *process* of learning, and thus how well it occurs, the *content* that is learnt is something that is not altered by context. (Hager 2011a: 22)

Thus, the early theorists of work-based learning do acknowledge some role for contextual factors, but these serve as a mere backdrop against which work-based learning occurs. Weak contextuality also resonates with some of the assumptions discussed above. Viewing learning as a thing that resides in the minds (or bodies) of individual learners effectively disconnects learning from the context that surrounds the learner. Thus, for weak contextuality

> a particular instance of learning can have been acquired in any number of environments but the same internal properties will result in the learner, as long as the external environment does not actually prevent the learning from occurring. (Hager 2011a: 22)

Weak contextuality also resonates with the assumption, discussed above, that learning is an independent product or thing that can move across space and through time. This view of learning as consisting of stable, perduring entities also accords well with the acquisition and transfer metaphors. As will be evident shortly, more recent theories of work-based learning adhere to stronger notions of contextuality that reject this cluster of assumptions. Strong contextualists hold that, for many types of learning, the nature of the learning itself is significantly shaped by particular aspects of the context within which it takes place. Work-based learning turns out to be a prime case of this. Thus, later theories of work-based learning propose a much more decisive role for social, organisational and cultural factors in shaping the learning, as well as the work performance itself.

So far, four themes that characterise early theories of work-based learning have been outlined and discussed. As well, there have been other research contributions, which, whilst sharing some, but not all, of these four themes, have contributed to early understandings of work-based learning (see Hager 2011a: 19–20).

Taken together, the four themes that are characteristic of early theories of work-based learning serve to emphasise features that are typical of formal teaching and learning situations. Thus, as Elkjaer (2003) observed, these early theories of work-based learning tend to treat workplace learning as akin to formal learning. However, as discussed earlier, work-based learning encompasses learning situations ranging from the very formal all the way through to the very informal. Thus, with the benefit of hindsight, we can see that these theories in the first category do not deal very well with major parts of the domain of work-based learning. In terms of Hodkinson and Hodkinson (2004) (Table 7.1), they cater for the intentional/planned column but fit much less well with the unintentional/unplanned column.

Sociocultural Theories

Sociocultural theories constitute the second broad wave of work-based learning theories. The theories in this category were strongly influenced by work in sociology and social anthropology. They reject most of the key assumptions of the early work-based learning theories, thereby offering alternative understandings that have

become influential in more recent theorisations of work-based learning. Key contributors include Lave and Wenger (1991) and Engeström (1999, 2001). Particularly influential has been the work of Lave and Wenger. They originated such crucial concepts as 'communities of practice' and 'legitimate peripheral participation'. For them, learning is not the acquisition of products, whether propositions or skills. Rather, they understand learning in relational terms as the process by which the learner comes to be able to function appropriately in a given social, cultural and physical setting. Thus, learning is 'situated' in a network of relations that constitutes a framework of participation. This network transcends individual participants. So for them, learning is not a thing located in individuals' heads, or even bodies. Rather, it is an essentially social process. Cultural-historical activity theory is a further very influential sociocultural theory of work-based learning. It likewise views learning as a network that transcends individual learners. It goes beyond the work of Lave and Wenger in that it attempts a more detailed account of the network (or 'activity system'). Activity systems are viewed as being comprised of diverse components, such as workplace rules, the division of labour and mediating artefacts. Engeström (e.g. 1999, 2001) is the best-known cultural-historical activity theorist, but these ideas have influenced many other writers on work-based learning, for example, Tuomi-Gröhn and Engeström (2003), Fuller and Unwin (2003, 2004) and Guile and Okumoto (2007).

These sociocultural theories differ sharply from the first broad grouping of work-based learning theories. This will be evident from a closer consideration of how they deal with the four main learning themes discussed in the previous section. For theme 1, as against the assumption that the individual learner is the correct unit of analysis, these sociocultural theories accord a new prominence to the various social aspects of learning. For some sociocultural theories, the focus is exclusively on the social. But others account for both individual and social learning, thereby recognising that though all learning can be viewed as social in some significant sense, this is not incompatible with some cases of learning being learning by individuals and other cases being learning by groups or communities. In short, some significant sociocultural learning theories challenge the idea that work-based learning has to be exclusively either individual or social. Rather, it is a plausible view that both individual and social learning are important dimensions of work-based learning (see, e.g. Hodkinson et al. 2008).

For theme 2, rather than performance of work being theorised as consisting of thinking (or reflection) followed by this thinking or reflection being applied to the particular work situation, sociocultural theories take a more holistic view. The stress is on work-based learning as an embodied phenomenon. They reject mind/body and other related dichotomies, focusing instead on whole-person learning and performance. Thinking and reflection are but some of the myriad personal abilities and attributes that underpin learning and performance. The emphasis on holism, which is characteristic of sociocultural theories, can be regarded as a descendent of earlier like-minded major learning theorists, such as Dewey (1916) and Vygotsky (1978).

For theme 3, rather than learning being viewed as a product or thing, sociocultural theories portray it as an ongoing process of participation in relevant activities.

Instead of learning being viewed as the acquisition of a set of products, the emphasis is on learning as an ongoing process in which capacities are developed by active engagement in appropriate activities. For work-based learning, this means engagement in meaningful work activities. Thus, for sociocultural theories, the favoured metaphor for understanding learning is that of participation. The acquisition and transfer metaphors no longer make sense. It is also a characteristic feature of sociocultural theories that they self-consciously set out to problematise and re-theorise the notion of learning. Viewing learning as a process of participation in a continuously evolving relational web is certainly a direct challenge to the kinds of mainstream understandings of the concept that strongly influenced the first category of work-based learning theories. It should also be evident that this sociocultural conception of learning is incompatible with the independence of learning assumption that was discussed in the previous section.

For theme 4, as already noted above, sociocultural learning theories support strong contextuality. In maintaining that work-based learning and performance are crucially moulded by social, organisational, cultural and other contextual factors, they reject all attempts to understand learning in isolation from its context. This seems to be very appropriate for understanding work-based learning since, in typical instances, it seems to be something of a paradigm of contextual learning.

So the theories within this second category of work-based learning theories take up distinctive and novel stances on each of the four key themes about learning. A further important theme is that these sociocultural theories of work-based learning push into the spotlight the possible importance of group or collective learning. This was not an issue for the first category of work-based learning theories, since they took it for granted that the individual learner was the appropriate unit of analysis. But, by regarding learning as a process located in a framework of participation, as a complex relational web or network that transcends particular individuals, these sociocultural theories imply that learning is distributed amongst groups of co-participants. So the possibility that groups, teams, communities and even organisations can intelligibly be regarded as learning needs to be considered. As suggested above, most sociocultural theorists regard group or collective learning as an important phenomenon that sits alongside of the notion of individual learning, rather than it being a question of the former replacing the latter. Thus, it can be said that the dimensions of the concept of learning have been expanded by this development. So far, group or collective learning is a topic that has been relatively neglected by both theorists and researchers. However, recently, it has started to attract significant interest (see, e.g. Boreham 2004; Boreham and Morgan 2004; Garavan and McCarthy 2008).

As was discussed earlier, work-based learning encompasses many and diverse kinds of learning situations, ranging from the very formal all the way through to the very informal. It was observed earlier that the first category of work-based learning theories did not deal very well with major parts of this very broad domain of work-based learning. It should be evident from the discussion in this section that, not only do sociocultural theories of learning resonate with the more informal kinds of work-based learning (i.e. those kinds that were neglected by the first category of work-based learning theories), they also provide suggestive understandings of

the more formal kinds of work-based learning and understandings to rival and challenge those offered by the first category of work-based learning theories. In terms of Hodkinson and Hodkinson (2004) (Table 7.1), the sociocultural theories cater well for the unintentional/unplanned column, whilst also providing interesting new perspectives on the intentional/planned column.

One feature that is common to most of these second category work-based learning theories is that they aim to understand and explain work-based learning to enable and assist practitioners and organisations to set up suitable conditions to support and encourage quality work-based learning. In this endeavour, they can be said to be pursuing a modernist agenda. Though contextual factors, in particular, are diverse and complex, the hope is that good theorising will result in workplaces being structured in ways conducive to ensuring productive work-based learning. However, more recent theorising of work-based learning suggests that the modernist goal of designing and implementing fail-safe, predictable systems for producing such learning may be misplaced. This chapter now turns to these recent theoretical developments.

Postmodern Theories

This third broad grouping of work-based learning theories has appeared quite recently. So it would be premature to attempt to assess what their overall impact on the field of work-based learning theorising might be. But it is already apparent that these recent theories do raise a major issue that is potentially crucial for the project of developing a sound understanding of work-based learning. This issue is whether and in what senses work-based learning should be thought of as being emergent.

The theories that comprise this third broad grouping agree with those in the previous grouping that learning, including work-based learning, is best understood as an ongoing process. Temporal change is a major concern of this third group of theories. But, most significantly, they maintain that the particular details of such changes are not fully decidable in advance of the change happening. Hence, they argue that learning, including work-based learning, emerges, or is emergent, from its context in unanticipated and unpredictable ways. So these theories cast severe doubt on the modernist aims of decidability and predictability. These theories agree with those in the second grouping that contextual factors shape and transform work-based learning, but add that they do so in ongoing unpredictable and creative ways. This means that, at best, the shape of work-based learning as an ongoing process can only be anticipated in broad, general terms. Thus, the effect of these postmodern theories in this third grouping is to expand the importance and significance of the idea that learning is a process. The ineliminable temporal dimension, implied by understanding work-based learning as a process, also carries with it the idea of novel, unpredictable emergence from ever-changing, complex contexts.

The notion of learning being significantly emergent challenges the value of previous metaphors employed to think about learning. *Acquisition* and *participation* have been the two most influential metaphors in educational thought (Sfard 1998).

Their shortcomings become evident once the full significance of the temporal dimension is acknowledged. The same applies to the *transfer* metaphor. Rather, metaphors such as *engagement*, *(re)construction*, *emergence* or *becoming* all promise to be more useful (see Hager and Hodkinson 2009).

Although, formerly, much theorising in the humanities and social sciences had been dubious about the notion of emergence, more recently, it has gained growing credibility. Though social reality is agreed to be dependent on human activity, some social structures nevertheless have emergent properties. These emergent properties have causal powers which persist and are transformed over time. Temporality and emergence are key features of these social structures since they are 'relations into which people enter (which) pre-exist the individuals who enter into them, and whose activity reproduces or transforms them…' (Archer 1998: 359). Archer quotes Bhaskar's position that 'society may ..be conceived as an articulated ensemble of such relatively independent and enduring structures' (Archer 1998: 368). These structures typically persist long after the lifetimes of those who were originally responsible for their emergence. Practices, particularly less attenuated ones, provide typical examples of such social structures. They have causal powers and persist over time whilst being transformed gradually by their practitioners. If practices can have emergent properties, then why should not the same apply to the learning, including of course work-based learning, that accompanies their transformation? It can be said that the distinctive contribution of this third grouping of work-based learning theories is to assign a significant role in learning to the 'sociomaterial' (Fenwick 2012).

As already noted, this third grouping of work-based learning theories is relatively recent, so its fuller impact is yet to become clear. Complexity theory has been a major influence. Following understandings of complexity theory, it is proposed that learning should be thought of as emerging in complex adaptive systems as humans interact with their environment in ongoing dynamic processes that mutually reconstruct both the environment and the human actors (see, e.g. Davis and Sumara 2006; Osberg and Biesta 2007). Here, learning becomes a growing capacity to act in flexible, constructive and innovative ways to deal with the challenges thrown up by ever-changing environmental situations. This sort of learning is understood to be emergent in the strong sense that it grows out of continuous and non-linear interactions which are not predictable from a knowledge of the structures that preceded it. Various writers, notably major figures in the organisational studies field, have started to employ complexity theory to illuminate work-based learning (e.g. Stacey 2005; Stacey and Griffin 2005; Tsoukas 2005; Tsoukas and Chia 2002). This kind of work has started to influence some of the sociocultural theorists (from the second grouping of work-based learning theories), for example, the notion of complexity figures in Engeström's most recent work (Engeström 2008). Other contributors to the category of postmodern theories of workplace learning include Gherardi (2006), Shotter (2008), Nicolini et al. (2003), Beckett and Hager (2002) and Usher and Edwards (2007).

A major theme of this chapter has been that work-based learning encompasses many and diverse kinds of learning situations, ranging from the very formal all the

way through to the very informal. It was earlier concluded that the first grouping of work-based learning theories failed to account for major parts of this very broad domain of work-based learning. The second grouping (sociocultural theories) was judged to be more successful in this respect. In terms of Hodkinson and Hodkinson (2004) (Table 7.1), the sociocultural theories catered well for the previously relatively neglected unintentional/unplanned column, whilst also providing stimulating new perspectives on the intentional/planned column. It can be concluded that the third grouping (postmodern theories) adds a further dimension to these understandings by putting new emphases on the vital significance of temporality and emergence in any rounded account of work-based learning.

Diverse Understandings of Practice

Though the notion of 'practice' has been increasingly employed in many and diverse writings in the social and behavioural sciences, there is no evident agreement about its meaning and scope. As Green (2009: 2) observes, the notion of 'practice' is 'inescapably contested, if not essentially contestable'. Yet it is typical of most writers that the meaning of this term as they employ it is taken to be unproblematic. As Green aptly puts it, 'practice' is 'a "stop word" *par excellence*' (2009: 2). For example, attempting to capture the range of this diversity, Antonacopoulou (2008: 114) points to five different meanings of the term 'practice': practice as action; practice as structure – language, symbols and tools; practice as activity system; practice as social context and practice as knowing. She regards each of these conceptualisations of practice as partial, with each addressing a significant dimension of practice. She seeks to develop a richer understanding of practice that encompasses these and other relevant dimensions. This bewildering diversity of ways in which the term 'practice' is used suggests the need for a detailed analytical classification. (For an exemplary attempt at this, see Kemmis 2008). This chapter will deal with this diversity of meanings by distinguishing what I call 'less attenuated' from 'more attenuated' understandings of practice along a continuum. It will be evident that it is the less attenuated accounts of practice that are most relevant to understanding work-based learning.

It should be noted that in distinguishing 'less attenuated' from 'more attenuated' understandings of practice, it is not being claimed that the 'less attenuated' usages involve the 'correct' deployment of the concept. From a consideration of the literature, it is evident that different authors deploy the term 'practice' in ways that appear to best suit their particular purposes. Thus, different usages of the term do different kinds of work. So there is no question of there being correct or incorrect usages of the term 'practice'. However, it can be asserted confidently that some understandings of practice are more helpful than are others for illuminating issues around work-based learning. This section will firstly explain what is meant by 'less attenuated' and 'more attenuated' understandings of practice, by outlining examples that are located at various points along the continuum between the two. This will be

followed by a consideration of some key advantages and limitations of these various understandings of practice, including, of course, their advantages and limitations for advancing our understandings of work-based learning.

'More attenuated' deployments of the term practice come in two main varieties. Firstly, 'practice' is often employed as a generic term that at first sight denotes a practice, but more detailed examination reveals that the supposed name of a practice is actually a collective term for a whole host of disparate activities, some of which may or may not be thought of helpfully as practices. For example, MacIntyre (1981: 175) famously offered construction as a representative example of a practice. Yet such is the diversity of structures that humans construct – roads, bridges, domestic housing, cathedrals, boats, etc. – it is clear that rather than being the name of a practice, 'construction' is actually a collective term for a host of diverse activities, many of which may helpfully be thought of as practices. Indeed, when MacIntyre's own detailed criteria for what constitutes a practice are applied to 'construction', its status as a generic term rather than as a practice becomes evident (see Hager 2011b: 551). Antonacopoulou (2008: 114) describes this first, more attenuated deployment of the term practice as 'a tendency to employ notions of practice to provide all encompassing descriptions of cultural characteristics on a macro level'. Such more attenuated senses of practice are likely to be neither particularly explanatory nor enlightening for fine-grained analytical purposes.

The second more attenuated way the term practice is commonly used is to denote 'specific activities on a micro level' (Antonacopoulou 2008: 114). Here, the usage is attenuated because the term 'practice' is applied seemingly indiscriminately to any micro level human behaviours, activities or, even, actions. As Green (2009: 7) points out, this kind of usage equates practice with 'just any kind of natural or material activity, ….what might be deemed "brute" activity'. The worry is that this type of untheorised and profligate usage will serve to drain the term of any explanatory purchase. If literally anything that humans do counts as a practice, then the concept loses its point.

Not surprisingly, few if any practice theorists deploy the term in as drastically an attenuated way as the two usages just discussed. So the work of serious practice theorists starts to be located on the continuum further along from the more attenuated end. Practice theorists typically propose criteria that need to be met in order for an activity to count as a practice. As these criteria become more selective, the respective theories can be placed further along towards the less attenuated end of the continuum. Examples of fairly minimal criteria that have been proposed for characterising a practice are that practices need to be intentional or that they need to be rule-governed routines (see, e.g. Polkinghorne 2004). However, Antonacopoulou (2008: 116) echoes many commentators in observing that practices in general 'are not simply a set of standard operating procedures that are reproduced by obeying a particular set of rules'. Certainly, invariant rule following is *not* a criterion in less attenuated accounts of practices. Rather, they view proficient practitioners as being adept at adapting and interpreting the rules in order to fit the particular circumstances.

Moving a bit further from the more attenuated end of the continuum, some theorists have sought to characterise practices by stressing the *interconnectedness*

of the various components that constitute a practice, such as actions and activities, mental as well as physical and non-human objects that figure in the practice. Thus, Reckwitz (2002: 249–250) characterises practices as:

> … the whole of human action … a routinised type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understandings, know-how, states of emotion and motivational knowledge. …
>
> A practice … forms so to speak a 'block' whose existence necessarily depends on the existence and specific interconnectedness of these elements.

The Reckwitz theorisation of practice is a move towards more stringent criteria for something to count as a practice. However, it can still be said to be located towards the more attenuated end of the continuum for several reasons. First, it tends to overplay the role of routine in practices. Second, though it recognises the importance of the interconnectedness of the various components of practice, it leaves the nature of these interconnections unclear (Antonacopoulou 2008: 116). Third, it fails to take into account the discursive aspects of practice. These kinds of matters are addressed by less attenuated accounts of practice. We now turn to some examples of these.

MacIntyre's Account

MacIntyre's highly influential definition of a practice is that it is

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

MacIntyre defines *internal goods* as those goods that can only be had by engagement in the particular practice (MacIntyre 1981: 176). These goods are internal in two senses. First, they can only be specified in terms of the particular practice, and, second, they can only be identified and recognised by the experience of participating in this practice. Thus, MacIntyre asserts, those 'who lack the relevant experience' of the practice 'are incompetent thereby as judges of internal goods' (1981: 176). The practice of fishing (one of MacIntyre's favourite examples) illustrates these basic points. The internal goods of the practice of fishing include the knacks, feels and know-how unique to fishing that can only be experienced and appreciated by those who have engaged in. The desire to excel at fishing constitutes a further internal good since it stimulates healthy competition within the practice. Likewise, avoidance of over-fishing and the nurturing and sustaining of future replacement fish stocks are two other internal goods of the practice of fishing. All of these internal goods benefit fishing as a practice.

For MacIntyre, the external goods of a particular practice differ from its internal goods by the fact that they can be obtained in other ways – '… their achievement is

never to be had *only* by engaging in some particular kind of practice' (1981: 176). The two kinds of goods also differ in other significant respects. The achievement of internal goods 'is a good for the whole community who participate in the practice', whereas external goods 'when achieved … are always some individual's property and possession' (1981: 178). Both internal and external goods involve competition: in the case of internal goods, there is competition to excel; in the case of external goods, there is competition to own or gain these goods resulting, inevitably, in there being winners and losers. Very often, MacIntyre cites prestige, status and money as typical examples of external goods. However, this conveys the misleading impression that external goods are typically morally dubious. This is not so. Indeed, the details of MacIntyre's theory actually entail that most external goods are morally neutral (see Hager 2011b). This is hardly surprising when we notice that the main external good issuing from the practice of fishing is food. As such, it definitely falls under MacIntyre's own criteria for external goods. Firstly, food can be obtained other than through the practice of fishing. Secondly, the fishermen's catch becomes somebody's property. Thirdly, fish as food is part of a wider competition for food resources.

The earlier discussion of the Reckwitz account of practices noted Antonacopoulou's criticism that it is not enough to assert the interconnectedness of the various components of a practice – rather, the need is to explain this interconnectedness.

MacIntyre's key notions of internal and external goods together serve to illustrate the interconnectedness of the components of a practice (see also Hager and Halliday 2006: Chap. 7). This interconnectedness is in part due to the complexity and diversity which characterises both internal and external goods in MacIntyre's theory. The preceding discussion has already illustrated some of this complexity and diversity. But there is more. For instance, Higgins (2003, 2010) has analysed MacIntyre's account of *internal goods* in order to demonstrate the wide diversity within this category. His analysis identifies at least four different types of internal goods in MacIntyre's account of practices (Higgins 2003: 287–289). These include:

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

It is worth noting that the first of these four items is realised in the work or performance itself, whilst the remaining three are realised in the practitioner. Hence, internal goods connect features of the practitioner with features of the work itself. A further crucial point is that internal goods and external goods are not as disparate as a casual reading of MacIntyre might seem to suggest. Actually, external and internal goods can be very closely interconnected (see Hager 2011b for detailed discussion of this point). From an external goods perspective, St. Paul's Cathedral is an impressive place of worship owned by the Anglican Church. But, simultaneously,

it is a building that exemplifies the internal goods of the many practices that went into constructing it. In MacIntyrean terminology, it might be said that St. Paul's Cathedral exhibits the virtues of the workers who constructed it. Hence, one and the same entity exhibits both internal and external goods simultaneously. Thus, MacIntyre's internal/external goods analysis serves to reveal and illuminate the complexity of practice and its interconnectedness. In the next section, we will consider how this account of practice might contribute to a richer understanding of work-based learning.

Green's Analysis of Less Attenuated Theories

Green (2009) offers a wide-ranging review of theorisations of practice. Because this review is particularly focused on *professional* practice, it becomes, in effect, a review of less attenuated accounts of practice. According to Green, there are two distinct but interrelated 'meta-traditions' that underpin theorisations of practice: the neo-Aristotelian tradition, which emphasises the integrity of authentic practices and the post-Cartesian tradition of post-structuralism or postmodernism, which problematises subjectivity and related issues such as mind, consciousness and knowledge. MacIntyre's account of practices is given as a paradigm example of the neo-Aristotelian meta-tradition. 'Practices as the constitutors of subjectivity' is the defining principle of the post-Cartesian tradition.

Green argues that the principles of both of these meta-traditions are needed for developing an adequate understanding of professional practice. He proposes that the complex concept 'practice' is helpfully thought about in terms of three 'distinct but interrelated categories': activity, experience and context (2009: 7). He holds that to be part of a practice, the activity needs to be more than mere 'brute' activity, for example, by being goal-directed. But goal-directed activity is not enough in itself to constitute a practice. Green next considers the inescapable experiential aspects of practice. These involve several distinct dimensions. Practice usually requires the practitioner to *interpret* what is happening and to assess its significance. But, as well, practice is something that is lived through, anticipated and recalled later. This involves consciousness in many forms, including sensory awareness, cognition, emotions and affects. Context is Green's third distinct but interrelated category for understanding practice. Though context is widely recognised, Green thinks it has also been misunderstood. Too often, context has been thought of as a container for practice or as a backdrop against which it takes place. Rather,

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

Though the complexities surrounding these three related concepts highlight some of the problems facing the development of a rich understanding of practice, Green

stresses that there are further issues to be dealt with. These centre on a cluster of related concepts: knowledge, judgement and decision-making. An account of these must be part of any comprehensive understanding of professional practice. Green seeks such an account from a consideration of the ancient Greek concepts of *phronesis*, *praxis* and *aporia*. He argues that each of these is an equally vital of any adequate account of professional practice. *Phronesis* covers practitioners' capacities to employ practical rationality (not technical rationality) to make appropriate, concrete, context-sensitive judgments. *Praxis* deals with practitioners acting in ways that further the goods of the practice. Here, the moral dimension of professional practice is being emphasised. Amongst other things, this dimension is reflected in committed engagement in the practice. *Aporia* concerns the sometimes uncomfortable reality that, in the course of their practice, practitioners will inevitably run up against situations of uncertainty, moments when they need to act, even though it is unclear and contestable which course of action is for the best in the circumstances. This fact reflects the inescapable defeasibility of some professional judgements.

Green's framework offers a very useful approach for addressing the complexities of less attenuated theories of practice. The next section will consider how this analysis can contribute to a richer understanding of work-based learning.

There are other detailed accounts of practice, particularly less attenuated forms of practice, that could have been considered in this section. These include the work of Schatzki (1996, 2001, 2002, 2005, 2006) and Kemmis (2005, 2008). However, the MacIntyre and Green accounts outlined above suffice to demonstrate the kinds of suggestive ideas that sophisticated analyses of practice can contribute to the important project of developing better understandings of work-based learning.

Implications of More Recent Learning Theories and the Practice Turn for Understanding Work-Based Learning

This chapter began by stressing the extraordinary diversity of work-based learning. Three different dimensions of this diversity were discussed. It is noteworthy that each of these dimensions has strong resonances with practice theory, resonances that potentially expand and extend the understandings of work-based learning offered by learning theories. Firstly, it was argued that work encompasses both paid work of all kinds as well as the many disparate kinds of unpaid work. The latter included domestic work of all types, voluntary work whether institutionalised or non-institutionalised, and engagement in structured hobbies and recreational activities of all kinds. Practice theories, particularly the less attenuated ones, converge very closely with this assorted collection of work activities. For instance, MacIntyre's examples of practices include games, hobbies, crafts, vocational occupations and broader communal activities. As well, MacIntyre recognises the crucial roles that teaching and learning play in practices, particularly in initiating novices into the

practice and in maintaining the ongoing well-being of the practice. In fact, MacIntyre goes so far as to maintain that teaching itself is not a practice, since it is an integral part of every practice. (For further discussion of this, see Hager 2011b). The second dimension of work-based learning that was stressed earlier was that it typically featured a full mix of diverse learning situations ranging from the most formal to the most informal. Once again, this dimension also typifies practices. Most involve some kind of formal learning activities, particularly for new entrants. These formal learning components may be more prominent in some practices than in others, but virtually all practices rely on the full spectrum of informal learning situations for their ongoing health and maintenance as the practice itself adapts and evolves. The third dimension of work-based learning captured the diversity of distinctive work-based learning situations that fall under the respective categories of 'intentional/planned' and 'unintentional/unplanned' as identified by Hodkinson and Hodkinson (2004). A close examination of their table shows that all six categories in their classification represent vital components of the ongoing maintenance and development of a practice. So, *prima facie*, the recent developments in practice theory are of obvious relevance to work-based learning theorists. This can be demonstrated further by considering some more specific examples of issues important to work-based learning.

We saw that as theories of work-based learning have developed, there has been a clear trend away from viewing such learning as akin to formal learning. This trend has raised a number of specific issues for work-based learning, such as the significance of group as well as individual learning, the holism and contextuality of such learning, the crucial temporal process aspects of such learning and its emergent and unpredictable character. Practice theories, particularly the less attenuated ones, offer significant insights in relation to these kinds of issues.

Consider, for instance, the idea that work-based learning needs to be thought of as an ongoing process. As a practice changes and evolves in often complex and unpredictable ways, so must the practitioner learn in order to remain a capable practitioner. Higgins' fourfold classification of Macintyre's internal goods (discussed above) elaborates and further illuminates this issue. Of the four types of MacIntyrean internal goods identified by Higgins, the development of the first, second and fourth ones all require, inevitably, a process of learning from the experience of actual practice. The third might also be enhanced from experience of practice.

The Macintyre account of practices also provides analytical tools for considering the holism and contextuality of work-based learning. Although he provides clear criteria for distinguishing between internal and external goods, this distinction operates at a conceptual level. Actually, a practice or its outcomes simultaneously exhibit both internal and external goods. For instance, in the Higgins analysis of internal goods discussed above, some are realised in the practitioner, others in the outcomes of the practice. The same applies to external goods (see Hager 2011b). Thus, on MacIntyre's account, the flourishing of a practice requires a holistic symbiotic relationship between the internal and external goods that characterise the practice.

Similarly, Green's analysis of theorisations of practice, discussed above, offers insights into various of the pressing issues concerning work-based learning. For

instance, his invoking of the concepts of *phronesis*, *praxis* and *aporia* suggests ways of understanding how faced with emergent and unpredictable situations practitioners can nevertheless make judgements that, though defeasible, are context-sensitive and aimed at furthering the goods of the practice.

Thus, richer, less attenuated accounts of practice, such as Macintyre's and Green's, enable us to identify and discriminate some of the many dimensions that are parts of the complex and multifaceted phenomenon that is work-based learning. However, although MacIntyre's internal/external goods analysis of practice and Green's somewhat different account both serve to reveal and clarify aspects of the complexity of practice, it might be that rich understandings of practice and work-based learning will involve various and multiple levels of explanation. Possibly, the sorts of explanations that are relevant to understanding practice and work-based learning will vary according to the particular aspects of these phenomena that are the current focus of attention.

Conclusion

This chapter has argued that work-based learning is a term that covers a diverse, multifaceted and complex range of phenomena. These multiple nuances are lost if, as happens not infrequently, 'work-based learning' is viewed as a unitary concept. It has been shown that recent developments in the theorisation of learning have served to highlight the many faces of work-based learning. However, it has been suggested that it is emerging understandings within practice theory that offer the most exciting potential for developing richer theorisations and explanations of work-based learning. As such, those interested in work-based learning should monitor ongoing interesting developments within practice theory.

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Part III

Chapter 8
Aristotelian Gnoseology and Work-Based Learning

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Introduction

There has been a recent revival of the interest in Aristotle within educational philosophy. Following Kristjánsson (2005), we may discern three perspectives from which the revival of Aristotelian ideas has been carried out: the *ethos* perspective, the *logos* perspective and the *phronesis–praxis* perspective. Proponents of the *ethos* perspective employ Aristotelian ideas in order to strengthen the following: communitarian considerations that question the liberal priority of the right over the good, accounts of the social construction of the self and multiculturalist concerns related to the political significance of identity and difference. Adherents to the second main Aristotelian perspective utilize the priority of *episteme* (based on *logos*) over *doxa* (understood as conventional wisdom). The *logos* perspective has appeared informative about epistemological issues of forms of knowledge and of their relevance to teaching. But, when it comes to experiential, vocational and work-based learning, the now dominant tendency is to approach the main issues from the *phronesis–praxis* perspective.[1] All three perspectives involve varying and often oppositional readings of Aristotle that emphasize just one aspect of his philosophy.

My aim here is to problematize the tendency to singling out the phronesis–praxis perspective. For, this tendency sometimes operates at the expense of the theoretical dimension[2] of work-based learning. In the effort to overcome a dualist treatment of theory and practice, work-based learning may succumb to an equally problematic anti-theoretical monism. I argue that we should avoid this danger and preserve the conceptual significance of the distinction between theory and practice while exploring

[1] A similar tendency is noticeable in educational action research.

[2] For the significance of theory for work-based learning, see, for instance, Raelin (1997, p. 565).

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their intersection and synergy in on-the-job as well as off-the-job educational settings. But, to drive such an argument home, it is first necessary to critique the reception of Aristotle in educational philosophy to the extent that the latter favours a selective and, ultimately, impoverished reading of Aristotelian ideas of knowledge and action. To this end, I discuss some attacks on Aristotle's thought as they come up in influential and important texts on work-based learning. I show that a more comprehensive account of Aristotelian ways of knowing challenges those readings of Aristotle that attribute to him an almost Cartesian rationalism.

Aristotle's theory of knowledge, his *gnoseology*, includes, but is in no way exhausted by, epistemology as it had been understood in modernity. Such a stretch of what is usually perceived as Aristotelian epistemology also challenges the current tendency to rigidly disconnect *phronesis* and *episteme* and to attach much greater weight to the former rather than to the latter. Beyond any intention to just set the historico-philosophical record straight, the aim of this presentation is to divert the attention from the well-worn debate on the supposed priority of theory over practice (or vice versa) to some other, possibly fertile but as yet inadequately explored, direction.

Work-Based Learning and the Critique of Aristotle

Aristotle or his ideas usually crop up in introductory sections of work-based learning writings and are used either as a stopgap or as a reference point for historical purposes, for tracing some contemporary issues (or even problematic assumptions) back to antiquity. Aristotelianism is sometimes discussed in more length, but, even then, its treatment is either dismissive on grounds of its supposed rationalism or affirmative on grounds of one-sided contextualist–eudaemonist readings of it.

When Aristotle is under attack within contexts of work-based learning discourses, he is presented as the historical source of our modern prejudices against experience and practice for the sake of reason. When his ideas are employed as a basis for a phronetic response to the division between the formal-academic, on the one hand, and the work-based, contextual realm, on the other, they seem to take an almost anti-theoretical twist that presents *phronesis* as an independent alternative to *episteme* and *techne*. This is most clearly manifest in S. Toulmin who allocates to action research the space of *phronesis* (contra *episteme* as theoretical grasp)[3] and to mainstream social research what he perceives as a 'Platonic *episteme*'. The favourable, yet somewhat anti-theoretical, reading of *phronesis* can also be detected in Wilfred Carr's recent texts on action research and, to a lesser degree, in Joseph Dunne's discussion of *techne* and *praxis*.[4] Both the disparaging and the favourable

[3] For a more thorough critique of Toulmin, see Eikeland (2008, p. 41). There, it is argued that 'Toulmin seems to confuse phronesis' with what Aristotle describes as deliberation (bouleusis), but phronesis includes more than mere deliberation.

[4] For more on this, see Kristjánsson (2005).

employments of Aristotle[5] leave out much of what in Aristotle's philosophy could still be beneficial either as a historical reference point or, more substantively, as a set of conceptions yet to be mined.

We come across Aristotle as a polemical opponent in many of Paul Hager's writings on work-based learning as well as in texts of many other thinkers in this field. Hager (1998, p. 527) blames Aristotle for the Western, flawed view of the nature of knowledge, and he does so, in those writings, exclusively by reference to L. A. Hickman's book *John Dewey's Pragmatic Technology* (1990). There, Hickman attacks Aristotelian epistemology by following a Deweyan perspective on Greek antiquity. On his part, Hager contrasts briefly Dewey and Aristotle in the context of WBL and concludes that 'Dewey's logic, while far from being the last word on the subject from the perspective of contemporary work, does point the way beyond the *simple binary thinking* inspired by the Greeks' (Hager 1998, p. 530, emphasis mine).

Likewise, Wagner and Childs (2000) employ the term 'idealist' in the philosophically pejorative sense to describe the rigid and detrimental segregation of knowledge and action. To trace this segregation back to Greek antiquity, and to Plato and Aristotle in particular, they quote the following from Dewey's *Democracy and Education*:

> Much as these thinkers [Plato and Aristotle] differed in many respects, they agreed in identifying experience with purely practical concerns: hence with material interests as to its purpose and with the body as its organ. Knowledge, on the other hand, existed for its own sake *free from practical reference, and found its source* and an organ in a purely immaterial mind: it had to do with spiritual and ideal interests [Dewey 1916, pp. 262–263; emphasis mine; also quoted by Wagner and Childs (2000, p. 2)].

Wagner and Childs conclude that 'idealists in classical Greek philosophy have argued a notion of knowledge as uncontaminated by the practical purposes of human existence' (2000, p. 2). A similar, yet more nuanced, charge is found in Dewey's *Experience and Nature*. There, Dewey wrote that 'though to the Greeks experience was the basis of practical wisdom, occasioned by sensation and perception, Greek thinkers yet "disparaged experience in comparison with something called reason and science"' (Dewey quoted by Lewis 2005, p. 433).[6]

However, against the above connection of practical wisdom exclusively with sensation and perception and against its further contrast to the Greek treatment of experience, we must keep in mind that the Aristotelian (and, more generally, Greek)

[5] My treatment of the two tendencies, the disparaging and the favourable, will be uneven here. I shall concentrate only on the disparaging tendency as I cannot do textual and argumentative justice to the other tendency now for reasons of space. But, I believe, the implications of my reading of Aristotle for the phronesis-praxis perspective can occur by association and be kept in view throughout this chapter.

[6] I believe that the reading of Greek antiquity by a thinker as important and influential as Dewey has, literally, had concatenated effects on the reception of Aristotelian thought in education. I say, 'literally' because it seems that this reading is relayed from one contemporary educational thinker to the other in a chain logic, very selectively and as an assertion in passing. Only few educationists have researched in Aristotle in ways that do not conform to the widely held depiction of Aristotle and of Greek antiquity more broadly.

word for experience, *empeiria*, has far more complex philosophical connotations than those typically attributed to it. Experience in the Greek context is involvement in a situation; it is not disengaged perception (Eikeland 2008, p. 170). *Empeiria* signifies that which results from repeated practice and accumulated, common knowledge. It must not be confused 'with the modern, empiricist-methodological reduction of experience to sense-perception' (pp. 144–145; see, also, Papastephanou 2010).

Be that as it may, the question whether knowledge is divorced from experience in Aristotle persists and must be kept in mind, as it is crucial for demarcating the relevance of Aristotelian philosophy to learning environments such as the workplace. But this question does not exhaust the misgivings of some contemporary philosophers of education regarding Aristotle, for he also stands accused of dissociating knowledge from emotion and will. As Hager puts it,

> the common story about learning, influenced by Plato, Aristotle, and later, Descartes, ensures that knowledge is quarantined from emotion and will. If humans are essentially minds that incidentally inhabit bodies, then development of mind remains the focus of education. (Hager 2005, p. 655)[7]

The implications are crucial for specific modes of learning, for such a conception of knowledge favours a theoretical and academic, spectatorial search for decontextualized validity at the expense of more localized human endeavour. In Hager's words again, 'from the Greeks we have inherited the notion that ideal knowledge is represented by universal necessary truth, i.e. truth that is purged of emotional or practical considerations' (Hager 1998, p. 522).[8] Wagner and Childs reach similar conclusions: 'learning in this [the Greek – M. P.] context is contemplative and directed towards the cosmos, as a model of perfect society and the learner needs to be free of real life interference' (Wagner and Childs 2000, p. 2).[9]

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[7] There is no space here for explaining why this dualism of mind and body (although Hager's phrase 'incidentally inhabit bodies' is unclear as such) does not hold for Aristotle. Arguably, it could be attributed to some extent to the Stoics but in no way to Aristotle's trichotomous ontology of the human being (*soma*, *psyche, nous*) and to the extremely complex relation of the three levels that speaks for the living body rather than for the body-machine 'plus "soul" as separate and independent entities' (Eikeland 2008, p. 93).

[8] This contrast of universality with particularity that entails a supposedly absolute prioritization of universal law/truth at the expense of any serious consideration of experience, the challenges it poses to generalization and its constant claiming of its due does not describe accurately Greek thought. For instance, Plato in the *Statesman* (294A-295E) and Aristotle in *Nicomachean Ethics* (EN1104a5) argue that no law could be specific, diversified and flexible enough to be fair to all individual cases, since nothing in human affairs is ever at rest. As Eikeland argues, 'both Plato and Aristotle emphasize this' (2008, p. 40). And intellectual virtues aim precisely at localizing truth and making it sensitive to context. That is, they are meant to deal with practical considerations.

[9] This is odd, to say the least, given that in *Eudemian Ethics* (1215a9), Aristotle claims that every inquiry (pasan skepsin) – including theoretical inquiries – should ultimately address the question of how it is possible to live virtuously and well (eu kai kalos zein) (see also, Eikeland 2008, p. 35). This falsifies not only the claim of the priority of contemplation over real-life concerns but also any related identification of Aristotelian eudaemonist utopianism with a kind of *contemptus mundi*, medieval quasi-utopianism of a celestial kingdom, a *cosmos* free from real-life interference.

Hager counts the following amongst the consequences of the Aristotelian (and more generally Greek) thinking about knowledge for work-based learning: 'this epistemology creates problems of several kinds due to its *impoverished notions of knowledge*' and it 'leads to the prevalence of theory/practice thinking which *prevents serious consideration of types of knowledge peculiar to the workplace*' (Hager 1998, p. 527; emphasis mine). Thought through, those consequences are taken to have a bearing on work-based learning[10] and on its requirement of a front-loaded (front-end) model of vocational preparation.[11] Overall,

> if workplace practice merely involves the application of general theories (the province of education) to the successful solution of particular problems of individual workplaces, then the details of the workplace problems remain of little interest to education. (Hager 1998, p. 527)

Hence, to the questions we set above (viz. whether knowledge is divorced from experience and whether knowledge is dissociated from emotion and will), two more questions are added: Does Aristotle's epistemology rest on impoverished notions of knowledge? And, does the theory–practice distinction as developed by Aristotle prevent serious consideration of types of knowledge peculiar to the workplace? For reasons of space and concision, we cannot answer each question separately here, but we can deal with them as a whole. To do so, we have to examine Aristotle's ways of knowing, their intersection and their ultimate sources.

Other Knowledge Is Valuable: For Aristotle Too

Educational researchers in WBL justifiably complain that, since modernity, many approaches rigidly separate *episteme* from *techne* and *phronesis*. Some of those approaches give priority to *phronesis* as an independent alternative to *episteme* and *techne* (Eikeland 2007, p. 347). *Episteme* is usually associated with modern science. Another tendency of modern epistemology is to assume good and bad ways of knowing. The good ways are further associated with scientifically produced or tested knowledge and the bad ones with practical, experiential, tacit, emotional,

[10] 'Hager and Beckett are at pains to dispel the myth that workplace learning is by definition some kind of inferior or applied learning, a second-order kind of activity in which prior skills are deployed in specific workplace situations. Indeed amongst the achievements of [Hager's and Beckett's] book is the authors' determination to dignify everyday, on-the-job learning' (O'Loughlin 2003, p. 113).

[11] As Beckett and Hager explain, they use 'the term "front-end model" to refer to any instance of vocational preparation that is based on a period of formal education and/or training that needs to be completed by entrants to the occupation before they can be regarded as qualified workers. The formal education and/or training usually takes place in classrooms remote from the workplace'. And they emphasise that they call 'this model "front-end" "because it implies that all of the learning that is needed for a lifetime of practice has been completed"' (Beckett and Hager 2003, p. 126; Hager 2004, p. 523).

traditional and habitual types of knowledge. The task, then, seems to be to transform as much as possible the latter into the former. Evidently, this means that vocational, experiential and work-based learning is treated as mindless preoccupation with human preservation and with the material reproduction of society. As G. Heath succinctly puts it, 'if knowledge is only constituted in the self-reflected Cartesian mind then theory is the realm of knowledge and practice only derivative and secondary' (Heath 2003, p. 108). Academic life is often accused of encouraging 'the "loftiness" of this pursuit of knowledge' and of using it in order 'to identify "theory" as superior to "practice"' (Wagner and Childs 2000, p. 3). The emphasis that is given to front-loaded vocational preparation is then incriminated as a manifestation of dualist residues of such assumed superiority.

As has been indicated, WBL educationists put forwards convincing criticisms of the modern, lopsided and narrow treatment of knowledge. But where they go wrong is in assuming that such a treatment originated in Greek antiquity and was promoted by Plato and Aristotle in particular. Against such assumptions, Olav Eikeland argues that 'the modernist dream of being able to transform and reduce all kinds of knowledge to one basic form, i.e. the form of science or of formal logic and its application to different fields, is very far from being Aristotle's' (Eikeland 2007, p. 348). Equally far from Aristotelian thought is the tendency of some postmodernist thinkers to levelling all forms of knowledge and ignoring the epistemological particularities that demarcate disciplines and form discursive boundaries. A more nuanced and comprehensive study of Aristotle shows that, despite some sporadically mentioned hierarchies of knowledge that reflected social commitments of a realist and adaptive kind and were inconsistent with his whole philosophical architectonic, Aristotle not only described but also valued other knowledge, beyond what corresponds to contemporary science. As Eikeland states, 'although modern epistemology can be traced back to both Plato and Aristotle, the old philosophers themselves, especially Aristotle, were far more differentiated in their thinking about knowledge' (Eikeland 2007, p. 348).

To explain the why of this assertion, let us begin with the fact that *episteme* for Aristotle is just one form of *gnosis* (knowledge). As *gnosis* is far more comprehensive than *episteme* (and incorporates it), it is more accurate, when referring to Aristotle's theory of knowledge, to employ the term *gnoseology*, and not *epistemology* (Eikeland 2007).

Aristotle's *gnoseology* is determined by the fact that the knower is always related to a known in multiple ways. Rather than being free from practical or experiential reference, knowledge is, in its various modalities, inherently relationally defined, that is, it is dictated by the object of its concern (Eikeland 2009, p. 51). Those segments of reality that are not produced, modified or developed artificially invite theoretical ways of knowing. The main preoccupation with them on the part of the knower is the effort to understand, explain, interpret or critique them. This effort may result in *episteme*, that is, in a systematically searched, adequately stabilized and secure knowledge about external things that display, to a large extent (*os epi to poly*), some regularity.

Nowadays, *episteme* is often translated as science and used interchangeably with theory when contrasted with the practical, the vocational and the applied.

But this can be inaccurate and misleading. In contrast to the *Nicomachean Ethics*, in his *Metaphysics* (1025b3-1027a28, 1064a10-19), Aristotle 'indicates that an episteme can be either *theoretike*, or *poietike*, or *praktike*, and they can all be about things that are stable *for the most part* [os epi to poly – M.P.]' (Eikeland 2008, p. 88). And there is yet another crucial distinction: *Praxis*, both as performance and as a way of knowing, is still different from *episteme praktike* as a knowledge form. Likewise, an *episteme poietike* also differs from *poiesis*. In other words, *praxis* and *poiesis* as such are not *epistemai*. Nevertheless, *poiesis* and *praxis* 'are still forms of *gnosis*' (knowledge). The crucial implication for the sources of the epistemic is that an episteme can be based on perceptual observation, or it can be based on 'performative observation, on *praxis* and *poiesis*' (Eikeland 2008, p. 88). In all cases, relationality makes the act of seeking to know primarily an engagement with the world rather than an aloof, distant or manipulative operation.

Further, within the entire *Corpus Aristotelicum*, it seems possible to discern two versions of the epistemic/theoretical way of knowing. The one is *theoresis* and operates as observation at a distance. *Theoresis* moves, indeed, from a constructed model of explanation down to experience or to practice in formal and deductive ways. It produces relatively stable knowledge, *episteme*, about things that are themselves stable. It has no interventionist priorities and relates to its objects in a detached manner. Its experiential basis is the collection of data (Eikeland 2007, p. 350); hence, its source, much against modern assertions, is not found in something immaterial (or *foro interno*) but in *aesthesis*, perception. It is *theoresis* – under different names, of course – that has been privileged in modernity and inflated so as to cover all science/knowledge that is, supposedly, worthy of the name. The other version of the epistemic way of knowing is called *theoria*, and it differs from *theoresis*. *Theoria* involves another kind of episteme, that is, of largely secured and stable knowledge. In 'Aristotle, and in ancient Greek more generally, not only what we normally consider sciences were forms of episteme' (Eikeland 2007, p. 350). For instance, 'besides the philosophy of nature and astronomy – boxing, music, grammar, orthography' and other disciplines were called episteme (ibid). They were called *episteme* 'because there was a certain stability and regularity in what they represented' (ibid) and to them corresponded *theoria* rather than *theoresis*. Grammar is a pertinent example of episteme *qua* theoria. 'Grammar is about ourselves as native speakers of a language' and as a communication community. Thus, between the knower and the known, there is not the kind of distance that is there in, say, astronomy. Grammar

> expresses and organizes certain aspects of our linguistic practice, the more or less stable patterns that repeat themselves in certain ways in our performance. Grammar is descriptive and analytical, but it is also normative, since it delivers standards for correct speech and writing. The basis of grammatical knowledge is not primarily artificially collected "data" of sense perception observed from the outside, but the practical competence, or patterns and structures in the acquired experience of the knower himself. (Eikeland 2007, pp. 350–351)

In other words, unlike *theoresis*, *theoria* has its basis not in *aesthesis* but in *empeiria* as practically acquired experience. Within its province, there is no physical distance between the knower and the known, as in astronomy, because what is studied is not outside our practice. In the example of grammar that we have just given, the knower and the known coincide (Eikeland 2007, p. 351).

We have already seen that *gnosis* is broader than *episteme*, as it involves both epistemic and non-epistemic forms of *poietike* and *praktike* knowledge. Moreover, much against standard depictions of Aristotle's theory of knowledge as supposedly comprising exclusively the much referred *theoria*, *poiesis* and *praxis*, [12] there is ample textual evidence in his *Physika* (194a33-b8) and *Politika* (e.g. 1256a4-10) that Aristotle also considered *khresis* as a form of knowledge. And in *Physika* (202a21-b29), we read that *pathos* is another knowledge form, primarily complementary to the knowledge forms of *poiesis* and *khresis*[13] – yet separate from them. As Eikeland remarks, unlike *poiesis* and *praxis*, *khresis* as use 'relates to externalized objects, but merely as *instruments*, not as *material*, that is, with ambitions of only using them, without changing them in any way' (Eikeland 2008, p. 90). As to *pathos*, it is the knowledge form that is based on the experience of being acted upon, directed, or formed from without, and it covers a wide spectrum of experiences such as passivity, receptivity, reactivity, emotional affection or even suffering. Interestingly, and, again, much against modern assertions that, in Aristotle, knowledge is quarantined from emotion and will, *pathos* is not to be eliminated or eradicated (as some modern rationalism demanded) but it is to 'be formed and tempered through praxis' (Eikeland 2008, p. 91). This allocation of space to emotions within the realm of experience and edification holds equally for the less passive emotions, namely, for those of the more proactive and forward-looking kind such as desire (*orexis*, *eros*) and loving, cultivating care (*agapesis*, *therapeia*) (ibid). From all the above, we see that, instead of imposing an impoverished notion of knowledge, Aristotle's gnoseology comprises a very wide spectrum of modes of knowledge that it associates with a nuanced and rich account of relational ontology.

[12] Kristjánsson gives a very clear and accurate account of the main forms of knowledge, but my effort here has been to show that a broader gnoseology, one that, amongst other things, rehabilitates those which are not usually characterized as main forms, can help us disprove the claim that Aristotle's notions of knowledge are impoverished. Here is Kristjánsson: 'These three main forms are *theoria* (knowing) which is based on *episteme* (true knowledge as opposed to mere opinion) and issues in *nous* (understanding) or *Sophia* (pure contemplative wisdom); *Techné* (technical thinking) which is based on *eidos* (the idea of a plan or design) and issues in *poiesis* (making, production); and finally *phronesis* (prudence) which is based on the idea of *eudaimonia* (the specifically human good) and issues in *praxis* (action, practice). While the "good or bad state" of *theoria* consists simply in "being true or false" (Aristotle, [EN1139a]), the good or bad states of *techné* are worthy and worthless products, and those of *phronesis* wise and unwise actions' (Kristjánsson 2005, p. 456).

[13] Passivity meets *khresis* in cases, for instance, when the other is treated as pliable object amenable to various uses or shaping. This point has not been discussed adequately, I believe, although it could produce interesting associations with biopower and biopolitics. In fact, Aristotle can be more profoundly discussed within contexts of work-based learning in ways that can, at least to some extent, meet or do justice to O'Loughlin's related concerns. When commenting on Beckett and Hager's book on WBL, O'Loughlin argues that it seems 'that while practice is certainly regarded by Beckett and Hager as being constitutive of subjectivity, nonetheless, the biopolitical production of subjectivities through the institutionalised organisation of work and the work *force* today is, in my view, not sufficiently explored' (O'Loughlin 2003, p. 115).

As to the universality of truth and its being supposedly set against the affective, there is no compelling argument that the search for what might be valid 'for the most part' or, even, valid for all times is necessarily devoid of passion, commitment and practical significance. That a truth remains a truth even when it is felt as unbearable or even when we fail to comply with it and follow it through to its practical implications is not the same as truth being divorced from emotional or practical considerations: quite the contrary. Besides, the search for universal necessary truths – often beyond immediate requirements of utility and interest – attests to a desire for truth that operates at the affective and volitional level rather than at the level of a calculative reason that is detached from feelings. And, since all various ways of knowing have their own specifically ethical-political implications, we must not lose sight of the fact that the modern ethical and political neutrality of knowledge does not hold for Aristotle (Papastephanou 2010).

The *Phronimoi*, Their Leisure (Skholi) and Their Occupation (Askholia)

This last assertion about the ethical-political character of knowledge invites some commentary on *phronesis* as well as a summary of Aristotle's gnoseology that will make *phronesis* fall into place. I begin with the latter task: Instead of covering only episteme, Aristotle's gnoseology (i.e. the whole set of ways of knowing or types of knowledge) comprises the following: *episteme* (bifurcated as *theoresis* and *theoria*), *pathos*, *khresis*, *poiesis* and *praxis* (Eikeland 2009, p. 50). Now, *praxis* itself is bifurcated as practice and ethics. All of them derive (to a different degree of course and in different combinations) from *aesthesis* and *empeiria*. *Theoresis* is spectatorial and speculative; *theoria* is deliberative and develops insight; *pathos* is passive and receptive of external influence; *khresis* is using; *poiesis* is making. As to *praxis*, now let us clarify that, while practice is training for competence and insight, ethical *praxis* is phronetic, that is, virtuous doing. *Theoria* is the episteme that matches insightful and reflective practice (Eikeland 2007, pp. 350–351). Just as not all *praxis* has *phronesis*, likewise, *poiesis* and *khresis* do not come exclusively from *techne*. These ways of knowing may all be tacit (*alogoi*). But best *praxis*, like professional *poiesis*, has *logos*. In like manner, the less things happen by chance, the more it is *techne* that takes over. For Aristotle, to think technically (*tó technazein*) is to theorize (*tó theorein*) (Eikeland 2008, p. 91). This indicates 'the necessity of deliberation and understanding of particulars in order for any technical *artisan* to act competently' (p. 92). In addition to the ability to deliberate well, Aristotle claims in his *Nicomachean Ethics* that the *phronimos* is also able to theorize (*dynasthai theorein*) about certain things (EN1140b10). Thus, as an intellectual virtue, *phronesis* is in no way antithetical to theory or supportive of an unreflective practice or exclusively limited to a habituated ethos of an ethic at odds with transcendent thinking.

I believe that the above form a backdrop against which statements such as the following can be criticized: 'Learning in formal education and in on-the-job

training is seen typically in terms of *theory (or knowledge) and practice (application of theory and knowledge)*. Workplace learning, though, seems to be appropriately viewed *as seamless know how, in the Aristotelian sense of "phronesis" or practical wisdom*' (Hager 1998, p. 526; emphasis mine). Much against the particularism that this statement reflects and the anti-theoretical tone that it attributes to *phronesis* as seamless know-how – a phronesis that is made to speak for less formal and more informal education, separating drastically the topology of learning (the school space vs the work space) – Aristotle's knowledge is *theorethical* (to employ Eikeland's term). The *theorethical* speaks for the synergy of the general and the particular, as well as the temporal priority of the former over the latter and the logical priority of the latter over the former, when action is at stake. As proof of this, consider the following: 'Phronesis is not only (ou monon) general knowledge but also (kai) knowledge of the particulars, and a phronimos not only knows (in general) (eidenai), but acts as well. As shown by the "not only", there is no indication here that phronesis is a knowledge of particulars separately or independently from general knowledge' (Eikeland 2008, p. 138). The direct implication for the 'front-loaded vs workplace' dilemma is that both poles are necessary and that solutions should possibly be searched in programmes[14] that reconcile them rather than setting them in an antagonistic relation.[15]

The 'theorethical' unity of ways of knowing that we encounter in Aristotle may help us sketch the kind of subjectivity that should be encouraged or cultivated through work-based learning.[16] To unravel this claim, let us draw from P. Gibbs and J. Garnett's definition of work-based learning. They consider it 'to be a learning process that focuses higher-education-level *critical thinking* upon work (paid or

[14] Yet, I agree with Winch that 'the whole issue of the mix between the work-based, simulation and theoretical aspects of vocational qualifications needs to be thought through. Doing so involves the government, employers, colleges and the Qualification and Curriculum Authority (QCA) working together to produce a vocational education scheme and a work-based qualification that combines practical experience with academic credibility' (Winch and Clarke 2003, p. 247).

[15] Surely, this cannot be adequately discussed here. But, one benefit that I believe that can be gained from the above is that Aristotelian thought can be conducive to reconciliatory approaches rather than inimical to them. It can be compatible with both Hager's plea for the integration of front-loaded and on-the-job training and Chris Winch's (Hager's opponent in the well-known debate) defence of the theory–practice distinction in some cases. Here is Winch: 'There may be good reasons independent of a belief in dualism for cleaving to a theory-practice model in some circumstances' (Winch 2003, p. 118). Such a reason is, for instance, that 'in some workplaces, the application of theory to practice is vitally important, as is the deployment of occupational as opposed to job skill, the former relating to a broader contextual awareness of what is involved in a work process, including its social, political and moral dimensions' (Winch 2003, p. 120). And here is Hager: 'One outcome of considering how best to integrate front-loading with learning on the job might be to favour more sandwich-type course arrangements, where periods of "front-loaded" learning alternate with periods of workplace practice' (Hager 2004, p. 531). I think that Aristotelian thought can be mediatory in this debate and it can combine both concerns, much against Hager's own antipathy for what he sees as the Aristotelian connection of theory and practice and his outlook on *phronesis* as seamless know-how.

[16] From a very different perspective but in like manner, Hyland (1996, p. 170) argues that epistemological and ethical dimensions of professional theory and practice are indispensable to the continuous professionalism in education. For an association of these themes with Aristotelian phronesis from another perspective, see Gibbs et al. (2007).

unpaid) in order to facilitate the recognition, acquisition and application of individual and collective knowledge, skills and abilities to achieve specific outcomes of significance to the learner, their work and the higher education institution' (Gibbs and Garnett 2007, p. 410; emphasis mine). The making of the critical thinker being a general aim of any educational endeavour renders the Aristotelian ideal of the *phronimos* [as a person that combines theoretical and ethical knowledge with any other, more job-/occupation-specific mode of knowledge (Gibbs et al. 2007, p. 367)] an important candidate for some philosophical space in the debates on work-based learning.

Indeed, this has already been promoted by many thinkers. 'We ought to adopt an approach to the preparation of university teachers that is not technicist, but one inspired […] by "practising teachers who are not only *phronimoi* but are also well-equipped to teach apprentice teachers to become *phronimoi*" ' (Gibbs et al. 2004, p. 193). What I have tried to do here is to raise (or allude to) some intricate issues of interpretation of *phronimos* within the broader Aristotelian gnoseology. But, as the idea that I have just cited shows, the meaning of *phronimos* is one thing; the relation between teacher and learner/apprentice is quite another. A few words on this are necessary, for, it is often taken for granted that Aristotle amongst others developed a rather conservative pedagogical model. It is assumed that within it 'the role of the teacher or master is conceived as that of the skilful interrogator to whose authority the learner/apprentice willingly submits' (Wain 2003, p. 231). A way of showing why, again, things are more complex than that is to turn to Aristotle's educational modes of developing the rationalities/intellectual virtues that correspond to the ways of knowing that I have presented. To *theoresis*, there corresponds deduction, demonstration and didactics; to *theoria*, the corresponding educational modes are dialogue, deduction and deliberation; to both *khresis* and *poiesis* correspond *techne* and *logismos*; ethical praxis is educationally served by the cultivation of *phronesis*; to practice corresponds educational dialogue, the way from novice to expert and from tacit to articulate (Eikeland 2009, pp. 51–58).

What we see from these quick associations is, first, that the didactic model does not in the least cover the ground of the variety of modes of teaching that Aristotelian thought accommodates; second, that work-based learning within the context of a learning community (Gibbs et al. 2004) and as a collective endeavour (Raelin 1997) requires modes of teaching that are sensitive to the specificity of the various learning tasks and thus do justice to both occupational concerns and general concerns of socio-historical embeddedness. That dialogue has such a prominent position in most of the Aristotelian ways of developing virtue compels us to finish this essay by turning to the Aristotelian coupling of dialogue, temporality[17] and action in ways that have yet again implications for the debates over off-the-job and on-the-job training.

The *phronimoi* students, who learn together with their *phronimoi* teachers how to be *phronimoi* (within the workplace and outside of it), need, for this task, both occupation (*a-scholia*) and a specific kind of leisure (*schole*). In other words, the danger

[17] For an approach to the temporality of knowledge in Aristotle that tackles different issues from those discussed here, see Gibbs (2008, pp. 272–274).

of mechanistic, automated and unreflectively routinized practice may be staved off or controlled with some pause for thought and dialogue. For Aristotle, 'dialogue needs relief from immediate pressure to act […] The articulation of emerging insights is a task of its own in need of leisure from other activities'. *Schole*, leisure in Greek, is the word from which 'school' derives. The *schole* 'was primarily a space for reflection interspersed in practical contexts […]. It was neither a didactic *didaskaleion* as normal schools were called in ancient Greek, nor an external observatory or *theoreterion*' (Eikeland 2007, p. 352).

In my view, formal education may be seen and revised along lines of dialogue and time, *schole*, where there is pause for thought that would be otherwise more limited in the context of urgency that action entails.[18] To be away from the workplace but reflect on it could be beneficial without carrying along connotations of elitist, academic education. In this case, theory should not be regarded as recipe but as pause for the kind of thought that falls outside the reflective judgment taking place in actual contexts of the heated 'here and now' of performing. And, *a-scholia* (i.e. job, occupation, breaking with *schole qua* pressure-free engagement with thought and action) raises demands upon learners and teachers that cannot be met exclusively within off-job educational loci. Beyond a narrow treatment of the pressures of production, performance, problem-solving and decision-making, as well as beyond the space of distant study viewed as protected and sanitized, there always lies *eukairia* (good, appropriate time) for the learning that corresponds to the desire for various ways of knowing and to a reconciled theory and practice.

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[18] What I am saying here is obviously very different from what has been characterized as hot action. '"Hot" action in a profession refers to situations where the "pressure for action is immediate"' (Hager 1998, p. 528). The urgency of action that I describe as a-scholia, occupation and break with leisurely reflection concerns all professions and any workplace and is not confined to situations, for example, such as a medical emergency or a fire. Thus, I do not share the view that the limits to reflection concern only hot action. I see the reflection I associate with *schole* (leisure) as a complementary and necessary companion to any a-scholia. And I take issue with another claim that Hager raises when associating limits to reflection with hot action. He writes 'it is characteristic of "hot" action situations that there is no time for reflection, yet the practitioner usually "knows how to go on". It is more a case here of "what practitioners find themselves doing", something that would appear to be at least as affective and volitional as it is cognitive' (ibid). Although I do not dispute that, seeing from a performative perspective, things might often be as felicitous as described, I cannot endorse the implication that can be drawn here that any pause for thought, outside the urgency of action, is expendable because all requirements (regarding a *phronimos* practitioner), affective, volitional, cognitive or other, are supposedly met within the context of work itself.

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Chapter 9
Working Our Way Through Murky Coordinates: Philosophy in Support of Truth Processes

Kent den Heyer

Murky Coordinates

Let's take the work of Ivan Illich as our spirit level of possibility. Imagine the time—the late 1960s and the early 1970s—when a respected public intellectual wrote about the need to "deschool society," to untie the knot of common sense conflating learning with education, education with institutionalized schooling, health with hospitals, police for community safety, and the Church with spiritual commune and commitment.

Illich wrote at a time dominated by an orientation to the "great society"—whether articulated in Soviet or capitalist terms—to be achieved through bureaucratic formulations with institutional enactments. A host of international and domestic human capital management programs dedicated to helping those less fortunate joined the Church to administer the good word and deed.

Deschooling society (1970)—and in Illich's (1973) book *Tools For Conviviality*—lay out the argument for the need to reverse a trend in which humans not only served tools, be they hammer or institution, but became the objects of tools (see Ellul (1967) for more on this). Rather than objects, Illich argues that tools serve people as the very means through which they express their particular subjective potentials within emergent communities.

Underlying this work was Illich's conviction in people's capacity to be self-directed in their learning and work environments towards commonly decided goals. For Illich, mutuality both of means and ends within work environments is not only a condition of survival but, as importantly, human fulfillment. This audacious formulation—the institutionalization of various aspects of social life either in its

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means or ends threatens thought, community, and conviviality—provides inspiration for this brief exploration of coordinates for inquiry into work-place learning.

Inspired by Illich's argument, I explore the work of Alain Badiou to identify possible coordinates in the form of a set of propositions for work-based learning inquiry (henceforth referred to as "wbli"). Where Illich affirmed human potential in the face of its managed stunting, Badiou provides a precise ontological formulation of people as both persevering in the inherited situations and, as his philosophy and ethics support, "becoming subject" to their learning and lives beyond their inherited identities and commitments.

Writing from the perspective of an education scholar, I argue that wbli attention to ontological premises as much as epistemological questions is crucial to counter the twin logics of "deficit reasoning" and "frozen futurism" summarized in the notion of the "Bourdieu effect": the positing of inability into the lives of others who then require our researched and educated interventions to overcome their deficiencies (Ranciere 1991; Ross 1991). Who, for example, do our inquiries presume to be working or learning? A related question is the following: Who are we as researchers in relation to those we presume to study?

Following both Illich and Badiou, ethical inquiry proceeds upon the ontological premise that all people have an always-present capacity to reconfigure their personal and social situations. Failing to do so, we simply contribute to the inequalities we as teachers and researchers then presume ourselves in a position to solve: a formulation David G. Smith (2000) refers to as "frozen futurism." Indeed, we still live in Illich's time.

A Badiou Event

Since 2000, the increased pace of translating Badiou's books written in the 1980s and 1990s into English has created growing interest. Current attention suggests that Badiou will soon join Michel Foucault, Jacques Derrida, and Emmanuel Levinas as another major French philosophical influence on Anglo-American scholarship (Gibson 2006). Indeed, given the traffic in English translation of his work and the number of books and journal special issues attempting to come to terms with what his work might mean for a diverse range of scholarly fields, we might say he has already arrived.

If Badiou has "caught on," it might be explained by the affirmative thrust of his thought that freshly affronts the doxa both of contemporary Anglo-American philosophy and more popular media-ated interpretations of the broader context within which we think. Charles Barbour (2010) succinctly summarizes Badiou's main moves in this regard:

> Badiou insists on the appearance of events that rupture with the routine operation of power, and militant subjects who combat power while remaining singularly disinterested. Against the assumption that all truth-claims are in fact thinly disguised power-claims, or ideologies reducible to the material interests of a dominant class, Badiou asserts the authority of "universal truths", or absolute principles that exceed the circulation of opinions within a

> given situation. And against the supposition that all effective action involves taking a position amidst a network of power-relations, or constructing a convincing discourse that is capable of instituting hegemony within a limited political order, Badiou calls for the prescription of axiomatic statements, and the declaration of radical convictions that break with all established knowledge. (Barbour 2010, p. 252)

Such claims are part of Badiou's broader project to rethink contemporary political, scientific, artistic, and amorous subjectivity. Perhaps Badiou's increasing popularity as a thinker rests on the fact that he speaks to many in an age awash in relativism on the one hand and an alleged "end of history/Washington consensus" on the other, in which each opinion is equally irrelevant to alter a situation dominated by political appeals to economic necessity. In support of people's capacities to affirmatively invent new realities, Badiou rehabilitates a concept of "truths" premised on "the strong, simple idea that every existence can one day be sized by what happens to it and subsequently devote itself to that which is valid for all…" (Badiou 2003, p. 66).

The One Is (K)not

Badiou's key move is to situate philosophy in a supporting role to his interpretation of ontology derived from mathematical set theory. Mathematics is ontology for Badiou. Or, rather, mathematical set theory provides a precise language for thinking infinity and our contemporary configuration as represented beings persevering in a situation. In contrast to mother tongues, mathematics has the virtue of describing being qua being without the drippy multiple meanings possible of any one word in relation to another or romantic resonances either for a past, unfilled present, or future desire. It simply articulates what is.

Set theory is the theory of sets or configurations of numbers, objects, or, in Badiou's terms, "elements." Set theory is a hotly contested area of mathematics. In fact, and perhaps apropos, as an area of inquiry, set theory is itself comprised of many subsets. What Badiou takes from set theory concerns its ontological implications. Among others, he pays attention to the null or empty set or, again in Badiou's term, a generic set—generic because it applies to all sets but, simultaneously, belongs to none or no one. As an axiom upon which set theory then proceeds, all sets, whatever their configuration, contain a generic set. Consequently any set is as empty as it is full; the presence of a generic set determines that as many infinite differences exist within a given set as exists between that and any other set or sets.

Imagine a group of objects in a room. Regardless of how we arrange or configure a set of these objects, each set thus configured will have as many other possible sets of elements within itself as that larger set from which it was set apart. For readers familiar with quantum physics, this will not be news: Any space examined is as spaciously empty as any other regardless of the scale (e.g., micro or macro) employed. That empty fullness is, for set theory, what the generic set contains.

The existence of the generic set implies, therefore, that any configured set contains within its own brackets the potentiality to be endlessly reconfigured into

another. A set through which social knowledge and relations are configured is for Badiou the "situation": concentrically overlapping social territories through which, by highlighting some but not other elements, we gain an identity and orientation towards the world. These range from family to State to economic relations where we learn to act, desire, and dream appropriately or identify ourselves as belonging to one but not another group (e.g., Male not Female; Canadian not Mexican). Every situation exists through organizing a set of elements into a configured "representation" constituting what will be seen as common sense (or, alternatively stated, just the way it is).

Every situation, however, contains its own generic set delimiting the "void."[1] As it is with the situation, so it is with each person. Thus, Badiou's foundational ontological move is to claim that there is no "one" or "One," "for the one is not." Subsequently, we can state that the situation knots an always present infinite void in which a set/situation can be configured otherwise.

Badiou thinks ethical subjectivity in relation to the "without-one" that is the Lacanian "void" at the heart of all knotted situations: "The multiple 'without-one' — every multiple being in its turn nothing other than a multiple of multiples — is the law of being. The only stopping point is the void" (Badiou 2001, p. 25). In contrast to Deleuze and those he inspires, Badiou asserts that there is little ethical value to be found in philosophizing about "being" or the excesses of differences ("appearances") being is. "Without-one"—that is, infinite difference as excesses of appearances—is, ontologically, obvious. It is the way things are. As he writes, "there are as many differences, say, between a Chinese peasant and a Norwegian professional as between myself and anybody at all, including myself" (Badiou 2001, p. 26). Consequently, for Badiou, "the real question — and it is an extraordinarily difficult one — is much more that of *recognizing the Same*" (Badiou 2001, p. 26). For Badiou, what is the "Same" is people's capacity to engage in truth processes.

To put this line of thought in other words, the proper object for ethical support or inquiry cannot be founded on arbitrary human traits (or sets of such) with which a "State/status quo/situation" already counts and discounts its members as a set of "one" (e.g., who does and does not belong workers not managers). Nor can ethics rest on notions of any Other's alterity if "infinite alterity is quite simply *what there is*." To what then should ethics be concerned? Fidelity. Fidelity to a "truth process" instigated by an "event."

The status of an "event" is, of course, a matter of much philosophical debate. As Mariam Fraser (2006) writes, "as a philosophical concept, [an event] exists in relation to a specific set of problems, including the problem of how to conceive of modes of individuation that pertain not to being, or to essences and representation, but to becoming and effectivity" (p. 129). For Badiou, the potentiality of events and subsequent truth process irrupt from the generic set at the heart of political, artistic, scientific, and amorous situations. Love, however, provides perhaps the most poignant example of Badiou's notion of an "event" and "truth process."

[1] Badiou's void is akin to Lacan's Real as that order of existence defying articulation.

All lovers are simultaneously subject to both the singular and the universal. All lovers—however particular the people and the circumstances—are "becoming subject" to an event (falling in love) that is also universal in that love-as-"event" respects no pre-set rules, preexisting identities, or differences and, we must assume, is potentially available to all. In addition to other implications, encountering an event such as love subtracts from (or "pierces" a hole in) what one thought to be the case of one's situation. This subtraction also creates the possibility of a supplement we enact in becoming more than the "one" we thought (were opinionated) we were. It is in this sense that a "becoming subject" is a collective subjectivity whose continuance is entirely dependent on a fidelity to the event. Badiou's is also not an argument for enlightened "free will" or for an individualism that is fully in charge of itself. As with love, the unpredictable occurrence and implications of an "event" mock such assertions.

The task of fidelity requires a discipline, for to what the subject is to remain faithful no longer exists. In other words, the whole of the "event" (the "falling" that is an event in the field of love) consists of its disappearing: "But this disappearing […] is also the occasion of a 'radical power of affirmation' insofar as it 'bequeaths the imperative to weave a truth' from its trace" (Badiou c.f. in Hallward 2005, p. 18). In short, an event occasions a possibility for a becoming subject to weave a truth process whose content or final form can never be prespecified:

> I cannot, within the fidelity to fidelity that defines ethical consistency [of, and, to, an event and subsequent truth-process] take an interest in myself, and thus pursue my own interests. All my capacity for interest, which is my own perseverance in being, has poured out into the future consequences of the solution to this scientific problem, into the examination of the world in the light of love's being-two, into what I will make of my encounter, one night, with the eternal Hamlet, or into the next stage of the political process, once the gathering in front of the factory has dispersed. (Badiou 2001, p. 50)

As Keith Jenkins notes, Badiou's ethics is concerned with a "relativism of a certain kind." This relativism is based on the singularity of "truth processes" and "becoming subjects." However singular a truth process, a truth process must always proceed in the name of all—for "when we abandon the universal, we have universal horror" (Badiou, c.f. in Hallward 2000, n.p). This point is so important; it warrants some elaboration.

A "truth process" must proceed in the "name of all," not for an Other (with its logic resting on narcissistic or theological premises of the "One"), a self (which likely leads to sophistry and relativism of opinion based on a "one-as-good-as-any-other-one"), a portion of the community (which likely leads to populism, ethnic nationalism, or identity politics as "our-One" versus "their-One"), or an ethical idealism (which likely leads to the deployment of unsituated ideals such as "human rights," "the rights of community autonomy," or "freedom for everyone" by those who already dominate the situation in the name of "we-as-One"). Badiou's "relativism [of truth processes emergent from particular situations] of a certain kind [that proceed in the name of all—'differences then are precisely what truths depose, or render insignificant']" offers researchers a potentially powerful guide for rethinking our purposes in the present historical situation.

The Frozen Futurism of the Bourdieu Effect

Badiou sutures ethics to subjectivity under the name of a post-evental "becoming subject" who traces a material course in the "situation" through actions and statements: "It is not the singularity of the subject that validates what the subject says; it is what the subject says that founds the singularity of the subject" (Badiou 2003, p. 53). Thus, a "becoming subject" (what a lovely or handsome play on English colloquialism) accords with Illich's sense of what life itself is most importantly concerned.

In contrast to Foccault, Badiou is not interested to map the ways in which power shapes (or sets) subjectivity but rather is more interested in the becoming subject of the generic set. Likewise, unlike Heidegger, he is not interested in tracing complexities of being in relation to place, tool, or longing. And in contrast to Marxist-derived theories of false consciousness, his is a more existentialist understanding of situations. By definition, situations subjugate infinity to a common sense of an "encyclopedia" of knowledge or, as he refers to the situation, "opinion" (e.g., boys will be boys/Pluto is a planet). For Badiou, the ethic of truths begins following a break with existing encyclopedia which always "puts to the test, following the collapse of an image, the sole maxim of consistency (and thus ethics): Keep going!" (Badiou 2001, p. 36): "There is always only one question in the ethic of truths: how will I, as some-one, continue to exceed my own being? How will I link the things I know, in a consistent fashion, via the effects of being seized by the not-known?" (Badiou 2001, p. 50). So, let wbli take as one coordinate the ontological understanding of its becoming subject always in but also simultaneously beyond (or, in excess of) the situation.

Both the work of Illich and Badiou present an ontological defense of human capacities to exercise their own intelligence and affirmatively invent realities. As in Illich's time, Badiou's thoughts counter a powerful logic positing a deficit into the lives of others that we as bureaucrats, scholars, and teachers then take as our mission to rectify. To this duo, we can add Jacque Rancière's work to counter a virulent strain of sociology (and with its implicit pedagogy of correcting false thinking) premised on the institutionalization of inequality and deficit reasoning. In Rancière's critique of Bourdieu's sociology, for example, we can easily recognize a critique against "pedagogics" (Dewey 2001, p. 398): the teaching component of our research desires.

Both sociology and pedagogics divide the world into "two: the knowing and the ignorant, the mature and the uninformed, the capable and the incapable" who, in turn, require "new scientific knowledge capable of illuminating and criticizing the overwhelming illusions in which everyone is imprisoned" (Ross 1991, p. xi). In each case, the operative principle of the enterprise must be the "naturalizing objectification of the other" so that each can legitimate "its specificity as a science" (Ross 1991, p. xii). Borrowing from Rancière, and as outlined by his translator, Kristin Ross, that principle—referred to as the "Bourdieu effect"—may be summarized with the following tautology:

> [Working class youth] are excluded because they don't know why they are excluded; and they don't know why they are excluded because they are excluded […] By rehearsing this

> tautology, the sociologist placed himself "in the position of eternal denouncer of a system granted the ability to hide itself forever from its agents": not only did the sociologist see what teacher (and student) did not, he saw it *because* the teacher and student could not. (Ross 1991, p. xi)

Thus posited, we take up the inequality of others as our cause to solve:

> By beginning with inequality, [each] proves it, and proving it, in the end, is obliged to rediscover it again and again. Whether school is seen as the reproduction of inequality (Bourdieu) or as the potential instrument for the reduction of inequality, the effect is the same: that of erecting and maintaining the distance separating a future reconciliation from a present inequality, a knowledge in the offing from today's intellectual impoverishment – a distance discursively invented and reinvented so that it may never be abolished. (Ross 1991, p. xix)

That the given always be given-as-lacking what only more school and a better research and teaching can rectify exemplify our situation or state of "frozen futurism." This is a state in which "what was expected to be revealed *has* been revealed, and that what the revelation discloses is that the future will always be more of this, a perpetual unfolding of more and more of this." (Smith 2000, p. 17)

Smith does not believe that the present-future is *in fact* frozen, "only a particular understanding of it." He calls for an education "to recover a future that truly is a future; that is, a condition that is actually open":

> Is there a way of living Now that could address the futility of frozen futurism while honouring the truth of human aspiration and dreaming; a way of living Now […] without giving up the possibility of continual regeneration through our mutual encounter? (Smith 2000, p. 18–19)

In response to Smith's question, we must emphatically answer, "Yes!" A first step on the way requires that wbli reject an inherited missionary stance so as to avoid nailing those we presume to study to the imperatives derived from the logic outlined above.

The proper verb tense with Badiou's use of an event, truth process, and the situation defined by opinion is neither the present nor the past but rather the future anterior. In essence, a "becoming subject"—as one faithful to the unpredictable implications of a truth event—declares "this will have been true" pursuing exactly "what it will be absurd *not* to have believed" (Gibson 2006, p. 88: emphasis added). It is in this pursuit with discipline or "fidelity" of an "event's" implications that is to be living "Now." In response to Smith's question above, this Now is, simultaneously, a future becoming through "the truth of human aspiration and dreaming": a worthy coordinate upon which to cast our inquiries.

Summation

Philosophy offers wbli the means to set coordinates by which our enterprise might be guided. But philosophy itself is never absent of its own desires; or, more precisely, those who do philosophy never do so absent of their own desires and commitments. Following Badiou's formulation, we use philosophy to proclaim that events and

truth processes have, do, and will happen and to assist in their namings as such. As such, we bear witness to the truth of truths. In this case, philosophy itself cannot produce truths but rather declares them as such as they occur in the conditions that make philosophy possible—science, art, politics, and love.

The choices seem quite clear regarding coordinates upon which to proceed in support of everyone's capacities for becoming and truths. In support of such, wbli must reject the deficit logic of the Bourdieu effect with its reproduction of an ever-receding horizon: a "future reconciliation from a present inequality, a knowledge in the offing from today's intellectual impoverishment—a distance discursively invented and reinvented so that it may never be abolished." Instead, taking the affirmative inventive ontological premises of Illich, Rancière, and Badiou philosophy declares: "truths happen." Let us pay heed and lend our places of opinion production to all people's already existing capacities to become more than the one we are.

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Chapter 10
The Language of Knowledge Generation in Practice

Kevin J. Flint

We shall not cease from exploration
And the end of all our exploring
Will be to arrive at where we started
And know the place for the first time

T. S. Eliot, 'Little Gidding'

Nothing can ever happen twice.
In consequence the sorry fact is
that we arrive here improvised
and leave without the chance to practice

Wislawa Szymborska, 'Nothing Twice', translated by Stanislaw Baranczak and Clare Cavanagh

Earlier in May of this year, I was invited by a professional doctorate (PD) student to visit him and to make observations of his work. Henry West[1] is the financial director of a medium-sized enterprise, Mercury Housing,[2] established in the 1980s to provide social housing for individuals who have been hitherto living on the streets: people who have lost their way in society and who some may regard as being rejected from society. Through systems of competitive bidding for government funding, Mercury Housing provides such individuals with affordable accommodation, mostly in the form of flats located largely within terraced housing. In his practice, Henry West points out, with evident pride, to anyone who visits his organisation, the justice of his company's policy, which is to provide such individuals

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with accommodation that anyone would be happy to live in. During the course of my visit to the company, we were able to see some of their latest housing, where the fresh new décor, carpeting and furnishings were all maintained at a very high standard; indeed, the pictures of events and places in the United States of America hanging on many of the walls helped to create a spirit that was present in all the properties we visited, of being at the frontier of something new. As financial director, Henry West has a love of all things American, he is determined that their clients are accommodated in housing where they can each gain a sense of admiration and respect for where they live.

Two weeks after my one-day appointment, during conversation with Henry, I had asked him what he had expected from my visit, and he had replied that he was 'open to anything'. It was his tacit challenge that suggested the basis for this chapter. In writing and in debating, and so connecting more generally with the language of higher education, it attempts to make strange a number of dimensions of some of the familiar everyday events that had become part of Henry West's practice, both as financial director of the company and as a researching professional who is currently working on a PD.

In guiding Henry as a professional doctorate student, and in reaching out to more general audience, I want to challenge readers with many forms of 'interconnectivity' (Antonacopoulou et al. 2005), not only in terms of practice, but more widely in opening consideration of the forms of language in which various practices are themselves immersed. Such learned connectivity, then, not only opens the uncertainties and complexities of societies in which PD research and 'work-based learning' is now situated (Nowotny et al. 2001: 30–47; Fell et al. 2011), it also constitutes grounds for the implicit 'generic' benchmarks of 'doctoralness' (Lester 2010) that structure the work of 'researching professionals' (Bourner et al. 2000), like Henry West, in exploring, examining and developing what may be regarded as the highest levels of professionalism in their own practices. It was such forms of learning that variously grounded and provided the basis for the continued development of Henry West's skilled performance in the workplace; the developing 'know-how' that it represented had not only been distilled from, but found expression in, the performative enactment of developing such practice on the day of my visit.

Of particular interest here are questions that emerged about the language of practice (Schatzki et al. 2001), and in particular about the pedagogised forms of language that now tend to foreground the generation of knowledge in and from practice, which is the subject of this chapter.

Language and Practice

In empirical terms, Henry West's office contains a number of entities that are familiar to anyone who has worked in such an environment: reference books, reports on the desk, an appointment diary, a computer, a printer, a telephone and so on. Ontologically, however, it is not these entities per se that are interesting but what comes into being

from Henry's embodied engagement with his world of practice. Moreover, and not surprisingly, though Henry had been keen to share some stories of events that had unfolded in the lives of the people who hitherto had lived on the streets and who desperately wanted accommodation that was affordable and more secure, the question of what it means to be human and more generally the question of being did not feature explicitly within his discourse. One such person, for example, had walked past his safe house – now presented as a well-appointed American style café – repeatedly every day for several months before he finally gained the courage to enter. The embodied anxieties that he had experienced were all too real. In the context of such experiences, tacitly and informally, questions concerning what it means to be human were almost unavoidable in Henry's organisation; they kept bubbling up just below the surface of our conversation.

As an observer when I first met Henry and he prepared me for the day, I was made acutely aware of the presence of some of the 'ready-to-hand' equipment that was unfolding in Henry's world. Such 'equipment' could not be characterised by a list of entities arranged in his office, nor even by two identifiable extracts from one of his reports that he drew upon to create a context for the day, nor a range of points that emerged from his experience of developing the company that he used to foreground my visit, nor even the hospitality that he showed to make me feel comfortable in his organisation.

What distinguishes such equipment from mere entities to be found in Henry's office is its being ready-to-hand in Dasein's[3] world of practice and the possibilities that come into being from its presence. One element of such equipment that was very close to home for Henry West was that entity we call signs that he variously drew upon in making sense of what comes *to be* his practice each day. As Paul Gorner (2007: 38) suggests, 'what makes this comportment to entities' in this case 'possible', 'is the understanding of being'. 'Being with' me and in being 'ready-to-hand' in Henry's world of practice, the various 'equipment' that he used 'in-order-to' prepare me for observing his work through the day was not fixed (Heidegger 1962: 96–98{68–69}, 118–122{86–88}, 153–168{118–130}): it was continually embodied in his changing responses to the holistic picture he was creating for me, reflecting his consummate know-how and skill in introducing a visitor – myself in the role of researcher – to his company. In this case, we might suggest more formally that his temporal engagements with multiple dimensions of his own historical experience brought into being a number of distinct registers of language mediating his practice. These in turn were already foregrounded by his strong interest in contributing to developments in his company, his love affair with American culture and his concerns for justice that for him is rooted in his own life experiences.

[3] 'Dasein' – taken from the young Heidegger's (1962) seminal work, *Being and Time* – is used here to connote that the standpoint adopted in this writing is post-humanist; rather than human beings representing themselves at the centre of the world, the thesis developed here is predicated on the assumption that we are all thrown in language from birth and that we remain in the throw throughout our lives.

In his relationship with his wife, for example, who is the head teacher of a large primary school in a community characterised by all of the classical hallmarks of socio-economic deprivation, he is concerned, on a professional level, with working for justice for the children in her school. In practical terms his company organise and contribute to events for the children in his wife's school. The equipment – in this case, the signs he drew upon – only made sense as a holistic picture created by the language in which he was immersed. The temporal unfolding of such equipment – involving looking towards future possibilities and on the basis of many layers of past experiences, from which we make sense of the present – in pragmatic terms created a context in which we could work together for the day.

Here was the beginning of a phenomenology of multiple layers of practice that are not easily rendered into identifiable objects or subjects of science. The simple yet sophisticated basis upon which entities can be involved with one another constitutes Henry's world of practice, which, in historical terms, is a mark of his own particular 'style' in business (Spinosa et al. 1997: 20–25). In this case, in the multiple layers of his practice, its style and his character as a manager reflect his own 'techne'[4] and his ready-to-hand involvement with equipment, which is nearly always foregrounded by one ubiquitous form of equipment, the sign.

The Work and Play of Signs Mediating Knowledge Generation in Practice

According to the classical metaphysical principle of being, 'something is repeatable to the extent that it *is*' (Caputo 1987, p. 123; emphasis added). It is this standpoint that creates the grounds for the conventional *modus operandi* of science as research developed from work-based learning; it makes demands for nothing less than the generation of valid, reliable and trustworthy knowledge of what *is*. It also points towards an explanation for the ontic and epistemological structuring of practices and discourses of work-based learning (Flint 2012c). Except, as a structure for the crucible of the modern knowledge economy, in at least one layer of our practices at the workplace, if the classical metaphysical principle were held to be true, it would hardly seem to warrant the conflation of the languages of modern education with such ontic and epistemological structuring of beings around the axis of practice at the workplace. At issue in what follows is the question of why the language of education has come to nearly always foreground the production and dissemination of knowledge at the workplace.

Many of the conventions of social research, and indeed the classical metaphysical principle of being itself, have their roots in a philosophical tradition running from Plato and Aristotle and culminating in Husserl's philosophy (Flint 2011). However, from Jacques Derrida's deconstruction of Husserl's writings in *Speech and*

[4] For Heidegger techne 'means bringing forth beings, whether by art or by craft, into truth' (Inwood 1999: 19–20).

Phenomena and Other Essays, another principle of being has emerged following the foregrounding of language as systems of signs in social theory. He writes 'the presence of the present is derived from repetition of signs and not the reverse' (Derrida 1973: 52). Something *is* – for example, 'the revealing of science through research' at the workplace – takes on the unity of an identity, to the extent that it is brought forth by repetition; being or identity in this reading of practice is 'proportionate to repetition' (Caputo 1987: 123).

Once we begin to examine such repetition of signs in any detail, a number of issues come into view. From Derrida's (1978) deconstruction of *Edmund Husserl's Origin of Geometry*, there emerge two possible repetitions of signs mediating practice. In practice, it turns out that we only ever repeat ideas, thoughts and observations in the workplace, given different particular contexts. According to Husserl's conception of our conscious intentions at the workplace, 'this is a metaphysical idea of repetition which moves backwards' – but in Derrida's reading it turns out to be 'a repetition which comes later and is reproductive of prior presence' (Caputo 1987: 121), which 'Derrida identifies with the rabbi (Husserl in disguise)' because it is always directed towards attempts to repeat exactly what had first been stated. Husserl wants to hold onto those metaphysical guardrails and to remain within the tradition. But, Derrida's deconstruction also identifies with 'the poet, disguised as James Joyce', to uncover the more radical side of Husserl in a repetition that 'exploits the buried potential in each word' following a 'generalised equivocity' in teasing out the 'nuances' and interconnections of words and phrases. The repetition of language in Joyce's *Ulysses* is a case in point. This is a repetition which 'is prior to presence and productive of it, and as a kind of reading, is therefore free to produce as it reads' – here is a deconstructive and 'critical idea of repetition' – which in the context of the knowledge economy actualizes links, consonances and associations, 'settling into rather than reducing this labyrinthine field' (Caputo 1987: 121, 128). We might be tempted to say that herein lays the basis for any innovation in, or development of, practice.

But, herein, there are at least two further dilemmas which were easily resolved in every layer of Henry's own practice. The logic of Husserl's repetition demands that researchers consciously repeat and re-enact with perfect fidelity what had been written or said by earlier workers in their practice – so that nothing new could be passed on and there would be no regeneration of their tradition. Equally, Joycean equivocity would make 'the very text of its repetition unintelligible' (Derrida 1978: 105), because every statement in this case about workplace practice would be so deprived of any depth; it would in effect be 'scattered to the four winds' (Caputo 1987: 128).

In fact, Derrida's deconstruction resolves these apparent dilemmas by recognising that there is a 'constituting value' (Derrida 1973: 5) of 'non-presence' that is built right into consciousness – a principle of deferral in time and difference in space expressed in the French word, *différance* – that is always already at play in all we do or say. In fact, for the most part, any such play is constrained in the discourses in which we are variously embedded at the workplace to the work of signs in helping us to make sense of our everyday world. It was such play of *différance* that was at work in Henry's conscious techne in the unfolding historicity of the multiple layers of practice seen earlier. It has been in operation, almost without thinking, from the very start of reading and writing this text.

On this reading, despite the rigours of research structures, the work of 'repetition' of signs at each particular workplace as grounds for the temporal unfolding of practices, where the play of *différance* is always at work in any identity, constitutes a particular challenge for epistemological structuring of research. In fact, the play of *différance* presents significant difficulties for the teleology of fulfilment of any identities constituted in every layer of practice. The objects and subjects of workplace discourse, indeed the truth of, the history of and what comes into being as a presence in workplace practice, are all effects constituted by the work or play of signs in the temporal unfolding of *différance*. Also, any possible origin, itself the product of repetition, is recognised as pure illusion; we each remain cut off from our past at the workplace, or in life more generally, and we continue in the throw of the 'empire of signs' (Trifonas 2001) that dominates our modern world.

Historically, against this, many philosophers and most social scientists appear to aspire to a form of mastery over past events, on the basis of either the tacit or explicit assumption that given time, the history of such events, such as my own meeting with Henry, can be recollected in their totality and completeness without remainder. In a book Geoffrey Bennington co-wrote with him entitled *Jacques Derrida* (1993), which is the closest he came to writing a memoir, Derrida makes clear that 'no human being can ever completely recover the multiple layers of history that make up a life' (Dooley and Kavanagh 2007: 3). In that initial meeting with Henry, and in trying to make sense of each other, it might be supposed that we were each working with fragments of the various layers of our past histories, with any identities being cut off from the teleology of fulfilment by what Derrida calls 'the catastrophe of memory':

> I would say that what I suffer from inconsolably always has the form, not only of loss, which is often! – but of the loss of memory: that what I am living cannot be kept, thus repeated, and – how to put it? – decipherable, as if an appeal for a witness had no witness, in some way, not even the witness that I could be for what I have lived. This is for me the very experience of death, of catastrophe. (Derrida 1995: 207)

Such catastrophe for Derrida leaves what comes into being, including identities of knowledge generated at the workplace, as no more than mere 'traces', 'fragments' or 'cinders' deposited from some earlier events: it is impossible to recreate a historical presence. In *Signature, Event, Context* Derrida uses the term 'iteration' to describe this impossible relation: in place of repetition in a Joycean move, he speaks of reiteration that nuances repetition with a difference (from the Sanskrit, *itera*) in our language (Austin 1962; Derrida 1982: 309–330). The Canadian writer, Norman Levine, in conversation often remarked that 'in order to remember something, we have to change it slightly'. His apparently simple comment nevertheless acknowledges both the impossibility of absolute repetition and the pervasive presence of our very being. In the light of this, what Henry and I were doing in our opening conversation was simply trying to make sense of each other's attempts at reiteration of our past experiences.

But, the context for my short-opening everyday conversation in Henry's practice had been far removed from the place of any academic discipline at the university, involving the possibility of some shared mastery of social theory. At the workplace,

as exemplified by Henry's organisation, there are none of the academic institutions that create the basis for mastery and control over the production and dissemination of knowledge. Here, in preparing for my day, we were both separated geographically and to a large extent, politically, from any institution of higher education. Moreover, if it had ever been our intention, there certainly would not have been sufficient time for us even to begin unpicking and deconstructing the many layers of our own histories that were played out in our conversation. In practice, however, what came into being in preparing for the day had been a number of clear subjects and objects that structured our day – a range of meetings that Henry had planned, including visits to some of their new accommodation and a safe house organised by his company where we called during the afternoon. In fact, what came into being, almost without thinking for both of us in our initial meeting, had been our immersion in a pedagogised discourse that in the pragmatics of everyday work defined our practice for the day, connecting a number of identifiable subjects and objects on a timeline that we had negotiated.

As a particular discursive practice, then, in one layer of our practices, what has come into being in what are now regarded as the highest forms of education and training at the workplace are manifold forms of the 'governmental' apparatus of work-based learning. Such forms, 'corresponding closely with Foucault's account of biopower' at the workplace, 'put major emphasis on training and dispositions' to produce 'a self-managing' workforce who are in possession of appropriate knowledge and skills (Peim 2012: 18). Moreover, the discursive practice for such apparatus, also constituting a pedagogised discourse in which Henry and I had been immersed, involved nothing less than the re-contextualisation, re-presentation, and re-ordering of the world of beings in their being (Cerbone, 2008). For the sociologist, Basil Bernstein (2000: 33), pedagogy is not a discourse at all but rather a principle, the principle of re-contextualisation – 'the selective appropriation, alignment and refocusing' of work-based learning upon relationships between subjects and objects (Flint 2012a: 181–182). In its re-contextualisation of the world of Dasein, in one stroke, rather than considering the temporal relationship between beings and being, such pedagogised discourse purports to constitute the basis for a relationship between an individual as subject and object on grounds of the principle of reason – although the precise basis for such a relationship outside the mantra of reason has never been explicated (except by recourse to Heidegger's (1962) thesis regarding temporality). It is this very 'governmental'[5] apparatus of public education and training in the workplace in the so-called developed and developing world that now constitutes the hegemonic public face of 'technological framing' (Flint and Peim 2012).

Heidegger's original term for technological framing was *das Ge-stell*, which in the German language derives from the verb, *stellen*, to place, to challenge, and is connected with a number of compounds – *verstellen*, to disguise; *vorstellen*, to

[5] For Michele Foucault (1991) 'governmentality' 'deploys bureaucratic, technological resources to monitor and manage its populations and institutions and their operations' (Dean 2010: 24; Flint and Peim 2012: 32).

represent; *zustellen*, to render…. As Heidegger (1977b: 4) noted, cryptically, 'the essence of technology is by no means anything technological'. More recently within the field of education, the meaning of this term has been developed beyond what Heidegger had originally presented (in the context of hard technologies of atomic power, boat building, bridges, aircraft, etc.) more than 50 years ago to provide a focus upon the soft technological language of *das Ge-stell* found in modern forms of education, which is itself seen as 'governmental apparatus' (Peim and Flint 2009; Flint and Peim 2012).

It is such governmental apparatus that has now come to assume *the* place for dissemination of public research, which has come into being as the very crucible of the late modern knowledge economy (Heidegger 1977c). Significantly, governmental apparatus, which, in and through the theology created by the highest form of education and training constitutes grounds for the 'conduct of conduct' of bodies, of populations, in one layer of our practices, is always in danger of inaugurating only one way of revealing the world around an axis represented by the principle reason (Heidegger 1991; Flint and Peim 2012). Tacitly, it is such a governmental apparatus, which, some would argue, the film-maker, Cathartic Studios, was exploring in the 1999 box-office smash *The Matrix*. Here is an apparatus that is forever at risk of reducing Dasein to a 'watchfully earnest, focused and productive' (Fielding 2001: 9) subject and object – a puppet of the framing found in a multiplicity of economies.

Indeed, as the crucible of the knowledge economy in one layer of our practices, such governmental apparatus of education and training has not been produced as a matter of policy, nor an edict from modern governments, nor by some apparently subtle and strategic managerialist manoeuvre undertaken by educationalists in attempting to raise further the standing of their own professionalism, and certainly not by the work of philosophers who continue to debate some of the issues arising from technological framing. But, philosophy itself does provide some important clues as to the significance of this apparatus, for it was Derrida who first came to appreciate that all identities – as we have seen already in this chapter – are inhabited by a 'ghostliness that renders all totalisation, fulfilment, plenitude impossible' (1988: 116); what comes into being and the multiplicity of beings found in our modern world are, at best, only ever traces. And, it is the presence of modern education and training at the workplace, which in its mythology, de jure, or so it would seem, has now come to assume *the* place in one dominant layer of our practices as the governmental apparatus used in order to maintain the fidelity of such identities de facto. It does so in the name of education by creating the very grounds for Dasein, continually pushing against the impossibility of the completeness and totalisation of any identity (Flint and Peim 2012).

Mythologies is Roland Barthes' (2000{1972}) account of how myth takes hold of a historical object, in this case the myth of 'education as *the* principle of being' (Flint and Peim 2012: 278, emphasis added), and turns it into a trope of universal value at the workplace. For societies of people increasingly required to complete annual training and development work proscribed by others, in some cases as a condition of employment, in this one layer of our practices, education through work-based and lifelong forms of learning encourages us to think of ourselves as

'work in progress'. In such a layer of our practices – the language being predicated on claims to be the principal or even the exclusive layer of practices – it would seem the new late modern theology enshrined in the mythology of the highest forms of education and training at the workplace is coming to persuade us that we are each a less than perfect organic project that only education in one or more of its many guises can remedy.

In this one particular layer of practice permeating the production of knowledge more generally at the workplace, such theologically structured mythologies of "education and training" also gather together all of the apparatus that marks the very presence of 'technological framing', colonising other bodies and making such framing accessible for consumption by a multiplicity of publics in our society. Providing we remain locked into this one layer of modern practices, it is apparent that knowledge products in all modern economies can only gain legitimacy on grounds of their authentication by rigorous officially recognised means of assessment. Herein lies the basis for much wider concerns about the 'principle of assessment' (Peim and Flint 2009), born out of the 'principle of reason' that purports to provide the only valid way of revealing the world (Heidegger 1991).

Education and training, too, in this particular layer of practice, have come to symbolise what is valued at the workplace, and as the 'pivotal' expressions of the will-to-power (Heidegger 1977d; Thomson 2000, 2005) in the framing (Heidegger 1977a), the learning that is engendered also provides a medium for the resocialisation of populations of individuals. Such docile bodies are always at risk, however, of becoming programmed as puppets of the very same hegemony, in what are essentially technologies of representation (Foucault 1977: 135–169). The docile bodies are always at risk of becoming reduced to 'standing reserve' (Heidegger 1977b: 17; Flint and Peim 2012) – that is, a locus of excess energy that is 'available for use' in an 'intelligible order' of subjects and objects created in the economy (Caputo 1987; Thomson 2000).

Moreover, in remaining in this one particular layer now built into many practices, here, the pedagogic re-contextualisation of the temporal unfolding of beings in their being into subjects and objects of education and training at the workplace constitutes grounds for another dimension of the framing in the production, dissemination and commodification of research (Heidegger 1977e; Flint and Barnard 2012). In this one layer of practices what really distinguishes modern education and training as the crucible of knowledge production and dissemination, without which there could be no commodification, are the 'panoptic' and 'synoptic' apparatuses of surveillance and monitoring that education and training provides. It is these apparatuses that now create the ongoing basis for maintaining the fidelity of identities in the emergent late modern theology of the various mythological objects and subjects to be found in our economies.

In this way of thinking, which attempts to clarify the blurring of different practices at the workplace, it can be seen that it is essentially education and training at the workplace which, in constituting the grounds for the maintenance of the fidelity of the identities of knowledge products in one layer of practices, has come to assume a new position in late modern economies. If this argument has validity,

then it is pedagogised discourse born out of education and training that increasingly is coming to provide the major locus of foreknowledge that structures Dasein's 'being-in-the-world' of the workplace. Is it not deeply ironic that this should be so, because pedagogic discourse in constituting grounds for defined subjects and objects of economies is always in danger of alienating Dasein from itself?

It is important to see such practices against the backdrop of ontology and epistemology which still stand as grounds for understanding the production of knowledge in the higher education academy. The theology of the highest forms of education and training does not somehow displace ontology and epistemology at the workplace; in constituting the essentially technological apparatus for the ontic structuring of beings in one layer of many practices, they have now emerged as grounds for the 'ontotheological' structuring of our world: as *the* only significant locus for gathering together all of the dimensions of the framing in the late modern workplace (Heidegger 1977a; Thomson 2000, 2005; Peim and Flint 2009). Such structuring is embodied in the new emphasis placed upon performativity and the development of associated competencies and in the tacit emergence of the language of the framing that has come to regard itself as *the* principal locus of all our workplace practices.

As the opening meeting with Henry illustrated, there are multiple layers of practices in every workplace; the temporal unfolding of his know-how revealed in the tacit forms of techne from his opening practice, as we began to witness earlier, always bears the fruit of a number of dimensions of Dasein's historicity.

In sociological terms, however, against a backdrop of the intention to produce objects and subjects at the workplace, more conventionally the apparatus of 'work-based learning' is there to confront the concomitant shifts from the older apparent certainties and the supposed 'linearity' of organisational change to emerging issues of the 'volatility' and 'complexities' of practice. This is especially so when confronted with the 'hidden side' of developing knowledge in the *Risk Society* (Beck 1992; Nowotny et al. 2001, p. 47), which can now be seen arising from that ghostliness in language that is always at work in the play of *différance*, rendering the mythology of fulfilment and the totalisation of identities reproduced in every layer of practice impossible.

Commercially, too, it also now clear why there has been considerable interest in expropriating tacit forms of knowledge, of the form exhibited in Henry West's practice, and translating and transforming it into subjects and objects of knowledge, now recognised as the very acme of pedagogised forms of discourses found at the workplace. For example, *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Ikujiro Nonaka and Hirotaka Takeuchi's (1995) account of knowledge management, has proved an important contribution in many forms of commercial practice (Easterby-Smith and Lyles 2003). Nonaka and Takeuchi's work spearheaded a flurry of publications concerning the management of knowledge within organisations (Drucker 1999) and at the frontiers of knowledge production, dissemination and application (vide Derrida 1981; Despres and Chavel 2000; Edvinsson and Malone 1997; Flint 2012b). While suggesting the basis for the 'enabling conditions' necessary for knowledge production in the economy (Flint 2011: 132–133), it is difficult to find any reflexive

consciousness of the ontotheological structuring of the framing in the literature concerning such economies of practice.

What is passed over completely in such structuring is the very movement of temporality itself that was there right from the start, in Henry West's practice. The play of différance, too, as we have seen already, has been at work in any readings and the writing of this text. Such movement of 'temporality' is perhaps Heidegger's (1962: 400–403 {349–352}) big idea in his influential account of *Being and Time*. It arose from his deconstructive reading of Aristotle's *Metaphysics*. 'Temporality is not, strictly speaking, a process'. It cannot be measured empirically. 'It is a structure of occurrence' (Stambaugh 1986: 88), which in Henry's practice at the workplace and in our lives more generally, structures a continually unfolding relationship between the future and the past, from where we make sense of the present. For Heidegger, 'temporality temporalises as a future, which makes present in the process of having been' (Heidegger 1962: 401 {350}). What do these words mean in practice?

Addressing this question in the brief examination of temporality that follows shows that the ontotheological structuring in the framing not only creates grounds for mythologies of work-based learning, it is also based upon an illusion.

Temporalising does not mean a succession of the ecstases – a series of expressions of what has been the present and the future. The future is not later than beenness, and this is not earlier than present (Heidegger 1962: 401 {350}). Such temporality has already been connected with Dasein's existential possibility, for example, in the techne of Henry's workplace practice. Possibility, which Dasein in each case *is* existentially, is distinguished just as much from empty, logical possibility as from the contingency of something occurrent (*vorhanden*), in so far as with the latter this and that can 'happen' (passieren)' (Heidegger 1962: 182 {143}). In other words, what had been witnessed at Henry West's workplace in that possibility of being a financial director is 'futural',[6] not because it is merely a statistical measure of possibility rather than the actuality of what happened. Instead, such existential possibility witnessed in the workplace expresses a prospect that can never be actualised in the present; it expresses a future that can never be present. 'Future' does not mean a 'now', which not yet having become 'actual' sometime will be, but rather the coming in which 'Dasein comes towards itself in its ownmost ability to be' (Heidegger 1962: 401 {350}).

Dasein's possibilities that had been witnessed in Henry's practice and in reflecting upon the relationship between knowledge production and research at the

[6] Heidegger recognises as 'inauthentic' expressions that in our somewhat outmoded English registers we might see in terms of 'what "one" does in various situations – where Dasein is looking "away from itself"'. Heidegger's contention is that in this existential understanding of futural, he has uncovered the underlying presupposition behind our ordinary everyday understanding of the future – usually conceived as the not yet now (Gorner 2007: 156–157; Heidegger 1962: 472–480 {420–428}). Heidegger also recognises an authentic 'possibility' for Dasein in being 'futural' – 'in the moment of vision for its time' (Heidegger 1962: 435–439 {384–387}).

workplace had not constituted objects that can be actualized in practice. In being in the workplace as a financial director, manager or researcher, my own and Henry's existential possibilities are always futural; such traces of identity do not somehow constitute endpoints at which Dasein aims. As William Blattner's (2005, p. 314) 'Unattainability Thesis' suggests, even though I continually press ahead to become a researcher (or any other given identity in the workplace), in practice I can never become those objects, because in each case the temporal structure of my being as care is always 'futural'.

However, in the crucible of technological framing constituted by education and training at the workplace, the ontotheological structuring of governmental practices of research, of work-based learning and of lifelong learning in the knowledge economy – as epistemologists have always claimed (Caputo 1987; Rouse 2005) – subjects and objects are generally treated as unproblematic. Consequently, my earlier observations of Henry's practice could have been construed in terms of a relationship between distinct entities:

- Myself as the author; the 'knower' in this case
- The objects 'known' – the skills, know-how, performance, motivation, research and knowledge generated from his practice
- The 'knower's representation of the known' in this case inscribed in my formal observations taken from the workplace

But, the foregoing brief examination of temporality has shown that all such objects are illusions. It points towards the 'unexamined and erroneous propositions' that underlie 'any conception of knowers as a special kind of entity – a mind, a consciousness, language speaker or rational agent – and of knowledge as a relationship between entities' (Rouse 2005: 174), or indeed, of knowledge as an object of the economy. As a leading translator of Heidegger's work, Joan Stambaugh (1986: 93) noted: 'temporality is' also 'centrally instrumental' 'in pulling the rug out from under the concept of man as sub-ject because there is no standing-under (substance) involved'.

Having arrived at this point and in being in Henry's workplace, we have yet to make clear the meaning of being in such a place and of what it means to be more generally. This reading of Heidegger's discourse suggests that, rather than a pedagogised discourse connecting subjects and objects of the knowledge economy, 'an entity, or being is anything that in any sense is' (Gorner 2007: 15). The foregoing examination of the temporality of being has also uncovered such beings in their 'enpresenting' as primary projections of the possibility of understanding. What it means to *be* in the knowledge economy is easily lost.

The question of the meaning of being is also one that is often passed over in readings of Heidegger's (1962) *Being and Time* (Caputo 1987; Dreyfus and Wrathall 2005). In fact, Heidegger (1962) draws out not just an ontological difference between beings and being but a tripartite distinction involving the meaning of being. For Heidegger, preliminary projections of understanding the workplace are projected upon their horizon of being, for example, in being in the workplace. In this tripartite distinction, meaning is that which constitutes what is understood (Heidegger 1962, 193 {152}) in the workplace, 'giving it an axis around which it can

organise itself'. So, 'meaning signifies the "upon which"[7] of a primary projection in terms of which an issue', in this case the unfolding pedagogisation of workplace practices in the knowledge economy, 'can be conceived in its possibility as that which it is' (Heidegger 1962: 371 {324}).

As Heidegger (1962: 371 {324}) makes plain, what is required now is no less than that we study the vectors in the hidden projection which underlies the interpretation of knowledge as objects in the economy. In a series of lectures presented as *The Principle of Reason*, Heidegger (1991: 28) answers his own earlier question; namely, for him it is that eponymous principle 'that bepowers everything insofar as reason' and in 'complete fulfilment of the demand for reason'. For Heidegger, what continually unfolds from the mighty principle of reason 'is that modern technology pushes towards the greatest possible perfection' (Heidegger 1991: 121).

Part of the issue can be understood on the basis of the 'calculability of objects' (Heidegger 1991: 121) and the very fact, as we have witnessed already, that in all forms of pedagogised discourse:

> The 'subject' demands that a 'reason' be brought forth for the 'object' only because the subject has long ceased to let the being be in its own ground.[8] (Caputo 1987: 223; Heidegger 1991: 26–27)

What Heidegger could not have seen in the early part of the twentieth century, however, was the ontotheological structuring afforded by late modern forms of education and training as the crucible of the knowledge economy at the workplace that now gathers together every element of the framing identified by him (Heidegger 1977a, 1991). What distinguishes modern education and training as the crucible of the framing is not only its capacity to create pedagogised discourse. As *the* place for such scientific and theorised narratives of what is done in practice, the pedagogic apparatus used to drive this science in being grounded in the principle of reason and in being always incomplete and unfulfilled is, in fact, paradoxically, the very locus driving development effort at the workplace (Flint and Peim 2012: 61). The desire to overcome the impossible and to make good the perfection and totality of all identities arises from being itself, which in its historicity in all manner of work-based science, indeed, in all forms of social science, is only ever a trace. There still remains, too, another paradox in the unfolding practices of technological framing found in the highest forms of education and training at the workplace. Until now, such specialised practices, themselves necessary products of the framing, have remained almost exclusively subjects of discussion in specialist forms of philosophy and theology. Indeed, the absent presence of such framing in the workplace is a mark of its power in the late modern world.

In Heidegger's attempt to rethink the history of western thinking (Mulhall 2003), which this chapter has sought to capture in microcosm by opening reflection on the

[7] '*Das woraufhin*', generally translated as 'upon which', is an important term for Heidegger. 'It refers to the background on the basis of which things are' made 'intelligible' (Dreyfus 1991: xii). Hubert Dreyfus (ibid: xii) notes that he translates it as 'that in terms of which or that on the basis of which, depending on context'.

[8] This is John Caputo's (1987) own translation of the original German.

temporal structures of being in the workplace, his writings serve to put in question our very sense of what is and our temporal relationship with being. In so doing, it is hoped this chapter serves in 'making strange'[9] our everyday sense that we make of the world of the workplace. For Brecht, such strangeness engenders an attitude of thoughtfulness and questioning, which it is hoped here will be directed towards the possible dangers of the current hegemony of the means-ends structured technological 'framing' which apparently provides only one way of revealing our world in workplace practices (Peim and Flint 2009).

One fact may seem immediately obvious from this deconstruction of the structures of Henry West's involvement in the knowledge economy, and that is the need to make clear the distinctions between education and pedagogy, and between education and being. Indeed what this statement represents is always at risk of becoming pedagogised until, as we have seen already, it is made plain it is the temporal structuring of language and the play of *différance* that open the possibility of a quite different metaphysics for the production of knowledge claims. Such metaphysics is already palpable in the newly emerging geometries of crystallisation[10] and of the rhizome[11] used to legitimate the truth of knowledge claims. In this way language and these new geometries serve to provide a basis upon which to challenge any possible binary distinctions between education and pedagogy or between education and being.

Such pedagogisation of many of the layers of our 'liquid modern world' (Bauman 2000) is also deeply ironic because in the framing in the highest forms of education and training available at the workplace, which now has come to assume the position of an 'ontological principle', and as such a significant locus of desire – all involved in the workplace are encouraged to see themselves as 'unfinished entities', 'works in progress' where only the governmental apparatus of education and training can 'remediate such a lack'. But, the real paradox arises from the realisation that in this way Dasein is always in danger of being reduced to 'standing reserve', subjects and objects of the knowledge economy constituting a source of excess energy that is 'available for use' in the coming into being of an 'intelligible order'.

Some of the layers of Henry West's practice also contain a significant challenge for thinking in other ways than those proscribed in such framing. In some of his layers of practice, it was temporality itself and the play of *différance* that created grounds for the historicity of his unfolding techne. Here, in being with him at the workplace, was another axis of understanding around which beings could be organised without being reduced to standing reserve.

[9] The original term used by Bertolt Brecht was '*verfremdungseffekt*'.

[10] Historically, of course, researchers have used 'triangulation' as a basis for the evaluation of knowledge claims, but more recently some have argued for the need to use geometries of crystallisation as a way of evaluating the multiple and complex layers (Richardson, 2000).

[11] In post-modern terms Deleuze and Guttari (2001) have opened consideration of the rhizome as a structure that makes unexpected and often hidden connections as a basis for the evaluation of knowledge claims.

Tacitly, also, Henry's company constitutes the basis of another challenge for the late modern knowledge economy in that as a developing business it provides respected and high quality social housing for people who have hitherto being living on the streets; the accommodation itself, therefore, opens significant possibilities for individuals. In other words Henry's company is working primarily with human beings who are open to possibilities, rather than with subjects and objects that are part of the calculus of the knowledge economy. Eric Maslow (1987{1954}) would recognise this as perhaps the first step towards 'self-actualisation' in what he identified as a 'hierarchy of needs'. But, in being a psychologist, Maslow had not primarily concerned himself with questioning and thinking about our home in the language of modern education and training and the ontology of our relationship with being. For work-based learning, such thinking opens the challenge of further possibilities for questioning much of the mythological pedagogy of modern practices.

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Chapter 11
An Epistemology of the Hand: Putting Pragmatism to Work

Svend Brinkmann and Lene Tanggaard

People have always learned at work, but the specific character of workplace learning has changed remarkably in relation to changing societal and organizational structures.[1] From the workshops of medieval times, through the bureaucratic organizations of industrial society, and towards the flexible post-bureaucratic organizations of the knowledge society, notions of learning, work, and subjectivity have been transformed (see Elmholdt and Brinkmann (2006), for an unfolded version of the story that is summarized here). The craftsmen of medieval Western societies banded together in guilds, valued tradition-bound professional knowledge, and insisted on apprenticeship as an educational form in order to hand down expertise from one generation to the next. Guilds and apprenticeship enhanced social recognition, security, and stability. With the industrial revolution of the eighteenth century, the manufacturing of goods moved from craft production towards industrial production in huge factories organized by hierarchical division of labor. The goal of the industrial worker was to learn as little as necessary in order to fulfill simple tasks efficiently at the assembly line. Scientific management introduced time and motion studies to optimize the performance of tasks and simplify the jobs to such an extent that workers could be trained to perform a specialized sequence of motions in a single optimal way. In today's knowledge economy, industrial work is gradually being displaced by knowledge work that requires attentiveness and an ability to reflectively analyze problems and make decisions. Now, a characteristic of the new innovative economy is a market-driven demand for flexibility and change that has put reflection and lifelong learning high on the agenda.

[1] This chapter reworks an article of ours that appeared in 2010 in the journal *Studies in Philosophy and Education*, *29*(3), 243–257, entitled "Toward an epistemology of the hand." Materials from the article are reprinted here with permission from Springer.

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In this chapter, we argue that too much of our thinking and acting, even in today's knowledge society, is dominated by what we will refer to as an "epistemology of the eye." This has not just influenced our theories of knowledge, truth, learning, and the mind, but, perhaps more significantly, it has had enormous practical implications, not least in educational contexts. We shall present an approach to pragmatism, in particular that of John Dewey, which sees it as aiming to replace the epistemology of the eye with an epistemology of the hand that is very useful in contemporary society and work life. The argument will work on three levels: First, we will introduce Dewey's epistemology of the embodied knower and use recent work by Mark Johnson to map the main metaphors that are at work in our current approaches to learning and understanding. Next, we argue that epistemology, according to Dewey, is itself historical and related to social practices and their values, and we briefly refer to Richard Sennett's new book on craftsmanship to outline the existential and moral values that an epistemology of the hand may promote. Finally, we turn to the social practices of education and ask – with the aid of Gert Biesta – how such practices would look, had they been built on an epistemology of the hand. They would not be arenas where knowledge is presented or represented (both of which draw on an epistemology of the eye) to learners, but such arenas would need to become communities of creation – or creative communities.

What Is Pragmatism?

In his Pulitzer Prize winning history of American pragmatism, Louis Menand characterizes pragmatism as a single idea that was shared among Charles Sanders Peirce, William James, John Dewey, and also the (philosophically less known) supreme judge Oliver Wendell Holmes, namely, an idea about ideas: "ideas are not 'out there' waiting to be discovered, but are tools – like forks and knives and microchips – that people devise to cope with the world in which they find themselves" (Menand 2002, p. xi). In many ways, this pragmatist idea about ideas was, and is, a revolutionary proposal that turns Western thought on its head. Ideas are not representations or copies of how the world is but are tools, with which we transform, engage with, and cope with the world.

All the major pragmatist points follow from this: Truth, for example, can no longer be seen as correspondence with reality but becomes something that "*happens* to an idea," as James put it (James 1907, p. 92), "something essentially bound up with the way in which one moment in our experience may lead us towards other moments which it will be worthwhile to have been led to" (ibid., pp. 93–94). And morality, consequently, can no longer be deduced from unchanging ethical values but becomes related to our capacity for changing and adjusting our habits in ways that are conducive to human growth, communication, and flourishing (LaFollette 2000). Also, Dewey's famous educational theory springs from the idea about ideas. Education is not – or ought not to be – simple transmission of stable ideas across generations but should be a way of reconstructing social relationships

in ways that enable human beings to respond to the changing world in which they find themselves. In other words, education is not confined to scholastic contexts but takes place everywhere that social practices are reconstructed, and it can be considered as society's way of making sure that fruitful new ideas will be devised in the future, something that is achieved only through communication.

All this is antithetical to the major strands of Western philosophy. Since the Greeks, the notion that ideas are "out there" has been fundamental. For Plato, ideas are "out there" as the basic, unchanging constituents of being (the Platonic "Forms") that we humans may come to recognize since we are endowed with immortal souls that stem from the same realm of ideas. The process of learning is here seen as a "turning of the souls" away from mere phenomena so that humans may come face to face with the eternal ideas. Plato's guiding imagery thus draws on light and visual metaphors of knowledge. Ultimately, as illustrated in the famous allegory of the cave, the sun is likened to the overarching idea of the good as that which brings light to all other ideas so that they may be seen. Knowing is seeing. Learning happens through visual confrontation with something. And the mind – the soul – is that which sees, a "mirror of nature" in Richard Rorty's illuminating (notice again the light metaphor!) words (Rorty 1980).

Although Aristotle transformed much of Plato's philosophy into a more viable, scientific approach, the visual metaphors lived on, for example, in his "hylomorphic account of knowing" (Rorty 1980, p. 35), according to which reality impinges on our senses, just as wax can receive an impression of a signet ring. With the subsequent ideational and representational epistemologies of Descartes and the British empiricists (John Locke, George Berkeley, and David Hume), ideas are finally transformed from outer cosmic constituents and become inner mental entities that humans build up "in their minds" in order to know the world. Needless to say, modern cognitive science has continued the project of charting how ideas (mental representations) copy the world.

Dewey Against the Epistemology of the Eye

Throughout his numerous books and articles, Dewey diagnosed the problems inherent in the epistemology of the eye, even if he did not use this exact designation. Instead, he would talk about "the spectator theory of knowledge." For Dewey, philosophical problems and positions – such as the spectator theory of knowledge – do not suddenly fall from the sky but are ideas that grow out of the lives of historical communities (Dewey 1920, p. v). Thus, he traces the dualisms of knowledge and action, ends and means, the ideal and the real, and theory and practice to the birth of science and philosophy in the Greek community in which there was a sharp division of labor between slaves and women on one side, who took care of practical work, and free men on the other side, who could spend their time with philosophy and pure theoretical thinking (ibid., p. x). According to Dewey, it was the social separation of the working class and the leisure class that "became a

metaphysical division into things which are mere means and things which are ends" (Dewey 1925, p. 124). This social, cultural, and economic division has since influenced our philosophical ideas and has in particular given rise to "the spectator theory of knowledge" (Dewey 1929, p. 23): the theory that says true knowledge arises through passive observation of reality, which allegedly is as it is in independence of being observed.

Dewey was keen to demonstrate not only how this epistemological idea is wrong as a philosophical thesis but also how it has led to problematic social consequences in its separation of those who know (e.g., those educated in theoretical forms of thinking) and those who do not know but may work if they are instructed appropriately by those who do know (e.g., those with practical forms of education). This separation should be replaced, Dewey argued, with one that insists on the fact that people know *different things* and that everything we know – if it is to deserve the term knowledge – must have some connection with practical action. We should only count something as knowledge if it enables us to make a fruitful difference to human experience. This goes for even the most abstract forms of theory. What we call theory, thinking, and reflection are forms of human activity that are necessitated when our habits are disturbed and eventually break down. We are then forced to step back from our immediate engagement in the world and develop ideas, thoughts, and theories that must be tested in practice to see if they can solve the problem for us. This stepping back does not give us knowledge in itself but is merely an instrumental moment in the process of inquiry, which ultimately results in giving us a better grasp of the world in a way that involves moving closer to things, rather than away from them (more about this below). Theories are thus valid to the extent that they succeed in solving problems, and it should therefore be borne in mind that the "so-called separation of theory and practice means in fact the separation of two kinds of practice" (Dewey 1922, p. 69). The Greek word for theory – *theoria* – shares a root with *theatron* or theater, which literally means "a place for seeing" (Sennett 2008, p. 124). Seeing in this sense is a theoretical affair that must ultimately prove its worth in practice, as a kind of *doing*. There is such a thing as seeing incorrectly, and the proof of whether one "sees" correctly or not is found in the practical actions that ensue. Or, to put it in other words, the epistemology of seeing with the eyes describes only a small moment in the process of inquiry, namely, that which involves the tentative formulation of ideas, but these must be put to use in practice, with the hands so to speak, if they are to qualify as knowledge.

From very early on in Dewey's career did he try to overcome the view of the knower as a passive spectator that we have inherited from the Greeks. Already in his seminal reflex-arc article from 1896 was the intent to demonstrate that stimuli do not passively impinge on the human senses but instead arise when active knowers are engaged in various activities (Brinkmann 2008). This is clear in the following quote, where Dewey discusses the stimulus of a noise:

> If one is reading a book, if one is hunting, if one is watching in a dark place on a lonely night, if one is performing a chemical experiment, in each case, the noise has a very different psychical value; it is a different experience. (Dewey 1896, p. 361)

This simple example should alert us to the idea that stimuli are constituted only on the background of activities and practices (see also Brinkmann 2004). Experiences are not simply passive happenings but aspects of human beings' doings and engagements with the world and each other. Contrary to the epistemology of the eye from Descartes and the empiricists, it means that there are no experiential elements that are simply *given* in the mind of a spectator. Dewey wants to replace the image of something being *given* to the eye with the image of something being *taken*:

> The history of the theory of knowledge or epistemology would have been very different if instead of the word "data" or "givens", it had happened to start with calling the qualities in question "takens" […] *as* data they are *selected* from this total original subject-matter which gives the impetus to knowing; they are discriminated for a purpose: - that, namely, of affording signs or evidence to define and locate a problem, and thus give a clew to its resolution. (Dewey 1929, p. 178)

We see with the eyes, but we *take* with the hands. Experiencing the world and knowing it are functions of our practical activities and of our *handling* the world and its problematic situations. What we experience and know about the world are primarily aspects of things that we interact with and manipulate (literally "operate with our hands"). Things are not first and foremost entities independent of organisms that have objective physical characteristics that can be *seen*. Rather, "things are objects to be treated, used, acted upon and with, enjoyed and endured, even more than things to be known. They are things *had* before they are things cognized" (Dewey 1925, p. 21). According to Dewey, we normally encounter and know things in those contexts of use where they belong, and it is only through active manipulation that we discover their properties: Things "*are* what they can do and what can be done with them, – things that can be found by deliberate trying" (Dewey 1920, p. 115).

We can here briefly turn to a contemporary illustrative example. The Danish-Icelandic artist Olafur Eliasson, known among many other things for his temporary physical transformation of New York City through the work The New York City Waterfalls, recently expressed how ideas are not given to him but actively taken and then embodied. In an interview with the Danish magazine *Weekendavisen* (no. 14, March 2009), Eliasson talked about the need to manipulate ideas before knowing the value of them. The journalist asked the question "How do you get your ideas?":

> It is not like ideas are created in a vacuum after finishing one piece of work until a new idea arises. Ideas come up as a continuation of the works - as the result of a dialogue. Surely, I do not mean that creativity comes from within, and rather than having an idea, you embody ideas and, in this way, you are testing if they are okay.

If we are to follow Eliasson's phenomenological description, ideas are not seen as coming from within or resulting from a clear vision. Rather, they are embodied as part of our practical work in the world.

Definitely, for Dewey, our knowledge of the world is a practical affair and is something grounded in our habitual conduct. We "*know how*," Dewey says, "by means of our habits" (Dewey 1922, p. 177), and the knowledge involved "lives in the muscles, not in consciousness" (ibid.). When we develop habits of handling the

world, we thereby develop an understanding of the world, which, therefore, cannot be ascribed to a disembodied "mind":

> The reason a baby can know little and an experienced adult know much when confronting the same things is not because the latter has a "mind" which the former has not, but because one has already formed habits which the other has still to acquire. (Dewey 1922, p. 182)

The world appears to human beings in contexts of activity or social practice, when they have acquired habits of movement, interaction, and communication. According to Dewey, everything in human culture – including science, philosophy, law, religion, politics, art, and history – are social practices that need to be contextualized in order to be understood (Kivinen and Piiroinen 2006, p. 305). It is within such practices that ideas and concepts have been developed as tools through attempts to cope with the problems humans have confronted in the course of history. Thus, science should not be thought of as revealing the true essence of a world "out there" that we may *see* but rather as something practical, like a complex extension of our hands that make possible a fruitful *manipulation* of things and events. There is no split between the mind and the world – or between scientific theories and the world in itself – for, as Menand has put it, it "makes as little sense to talk about a 'split' that needs to be overcome between the mind and the world as it does to talk about a 'split' between the hand and the environment" (Menand 2002, p. 361). The epistemology of the hand avoids the problems otherwise inherent in representationalist epistemologies of the eye, and the debates about realism and idealism (do our representations correspond to the real or not?) turn out to be largely irrelevant, for the hands cannot represent (or misrepresent) the world. They can only handle or mishandle it. And "mishandle" should here be taken in an unabashedly moral sense, which implies that narrow epistemic criteria concerning truth should be supplemented with moral criteria concerning improvement of human affairs in a broader sense. Dewey claimed that all sciences from physics to history "are a part of disciplined moral knowledge so far as they enable us to understand the conditions and agencies through which man lives" (Dewey 1922, p. 296). Moral science, therefore, "is not something with a separate province," as he put it (ibid.). In Dewey's pragmatic framework, all sciences and all kinds of reason and rationality are species of practical reasoning; the pattern of practical reasoning is the pattern of all inquiry (Garrison 1999, p. 291).

Metaphors of the Eye and the Hand

After having introduced the general Deweyan critique of the epistemology of the eye, we can begin to unfold in greater detail the alternative in the form of the epistemology of the hand. We will begin by engaging with the pragmatist Mark Johnson's (2007) recent exploration of the bodily basis of meaning in *The Meaning of the Body: Aesthetics of Human Understanding*, in which he continues to develop the theory of metaphors that he and George Lakoff have worked on for years (Lakoff and Johnson 1980, 1999).

The body takes center stage in Johnson's Deweyan account of meaning. According to Johnson, we need to approach the body as an experiencing, phenomenological subject and not just as a biological organism or physical object, which, of course, are wholly legitimate approaches to the body in the medical sciences. But, as also Maurice Merleau-Ponty stressed, when we view the body in terms of traditional scientific methods, it becomes an object and cannot find a place in our system of experience (Merleau-Ponty 1945, p. 63). The phenomenological body in contrast is "the living, moving, feeling, pulsing body of our being-in-the-world" (Johnson 2007, p. 276). It is the body as experienced, as ground for experience of the world, prior to the scientific theories we formulate about it (e.g., about the body as physiological object). Merleau-Ponty analyzed motility as our basic form of intentionality, and, like Dewey, but against the epistemology of the eye, he understood consciousness not as an "I think" but as an "I *can*." We *can* before we *think* about what we can. It is an *operative intentionality* that grounds our everyday understanding and "produces the natural and antepredicative unity of the world and of our life, being apparent in our desires, our evaluations and in the landscape we see, more clearly than in objective knowledge" (Merleau-Ponty 1945, p. xx)

Basically, the body does not move because a disembodied mind has ordered it to do so. We do not perceive something as a passive process, and then, as a subsequent process, set our bodies in motion. Rather, our perceivings are functions of embodied movements and actions. But although this phenomenological insight – that there is a basic form of bodily intentionality, which was also expressed in Dewey's reflex-arc article – may be acceptable to some, it is rather more difficult to accept the stronger point made by Johnson that *all* of our mental operations are conceivable in terms of the moving and experiencing phenomenological body. What about our capacities for abstract and reflective thought?

Johnson argues that even mathematics, logic, and reason more broadly are embodied (Johnson 2007, p. 102). This argument is developed through his theory of metaphors. Metaphors enable human beings to go from meanings that are embodied in a very concrete sense (e.g., "pain is bad") to abstract thought (e.g. "a free press is a democratic necessity"). Johnson's pragmatic-phenomenological theory implies the radical thesis that *all* theories and abstract concepts are metaphorically defined – and therefore ultimately grounded in embodied experience. What does this mean? A metaphorical understanding is one where we understand one phenomenon in terms of another in such a way that there is no literal connection between the two. "The mind is a computer" is such a metaphor, all too familiar in the cognitive sciences. We can say "she took the first step toward medical school" without therefore implying that she moved in physical space. Traveling through physical space is here the metaphorical source domain that structures our understanding of beginning a purposeful activity.

But let us look more closely at the central concept of understanding itself. Understanding is what we want to convey to learners through educational practices. We want people to understand mathematics, democracy, history, literature, and numerous other things that we value in our culture. And the epistemology of the eye is centrally important in our understanding of understanding, as this concept is structured by a basic visual metaphor: Understanding is seeing. Although

understanding is not literally bound up with seeing, we say such things as "can you see what I mean?" (meaning "do you understand me?") and "do you see the logic of the proof?" According to Johnson, it is an immediate, concrete, and embodied activity (seeing) that structures this abstract notion of what it means to understand something. He makes the following formal analysis of source domain (vision) and metaphorical target domain (understanding) (adapted from Johnson 2007, p. 165):

Source Domain (Vision) → Target Domain (Understanding)

Object seen → idea/concept
Seeing an object clearly → understanding an idea
Person who sees → person who understands
Light → "light" of reason
Visual focusing → mental attention
Visual acuity → mental acuity
Physical viewpoint → mental perspective

This analysis may appear commonplace at first sight, but if we look at the implications of this metaphor for philosophy, pedagogy, and science in the Western world, it is clearly quite significant (beware that this preceding sentence itself drew on the visual metaphor three times – "at first sight," "if we look at," and "clearly quite significant" – which testifies to the pervasiveness of this metaphor in our understanding of understanding!). In fact, we may here have one of the most fundamental metaphysical assumptions behind the scholastic educational system that plays a key role in the ways that modern societies reproduce themselves. Children have for centuries been expected to sit down and receive knowledge. People are often removed from their everyday work surroundings to take a course that is meant to improve how they work. Johnson's point is that such educational practices, grounded in what we call an epistemology of the eye, derive their obviousness from our immediate embodied visual experiences, where we know what it is to strive for a clearer view of something.

However, Johnson is not content simply to make this point. Although the visual metaphor is dominant, it is not the only one that is important in our culture. A competing metaphor lies behind the epistemology of the hand: Understanding is grasping. We do sometimes say things such as "do you grasp what I mean?" Schematically put, an analysis of this alternative metaphor looks as follows (adapted from Johnson 2007, p. 166):

Source Domain (Grasping) → Target Domain (Understanding)

Object grasped → idea/concept understood
Grasping an object → understanding an idea
Strength of grip → depth of understanding

Losing one's grip → failing to understand
Object out of reach → idea that cannot be understood

Other bodily image schemas are activated, Johnson says, when we use the metaphor of grasping than when we use the metaphor of seeing. Our whole attitude to processes of understanding is different with an outset in this metaphor, and it is obvious that Dewey's "learning by doing," that is, learning by manipulating the material to be appropriated and building up the appropriate habits, becomes a central approach to learning, when we think of it from the metaphor of grasping. Since we grasp with our hands, this metaphor tells us, we genuinely learn only by experiencing life *at first hand*.

Two very different kinds of bodily experiences, thus, support the respective epistemologies of the eye and the hand. That is why both epistemologies have been able to survive through the centuries, and, in our view, the task for epistemologists of the hand should not be to demonstrate that the visual metaphors behind the epistemology of the eye are *false*. Instead, for pragmatists, the interesting question becomes what kinds of action and experiences are made possible if we base our practices on one idea rather than another. What form of life will we develop if we structure our practices, institutions, and work organizations around the belief that understanding is like grasping something? Will this form be more conducive to human flourishing, equality, and problem-solving than simply staying with the epistemology of the eye?

These questions of practice and value lead us to the next section on existential dimensions of the epistemology of the hand. However, from the pragmatist viewpoint, it may still be possible to argue that those approaches to knowing and understanding that conceive of the knower as an *active* being are more helpful than those that portray the knower as passive spectator. For example, humans do not simply *see*. Rather, we *look*, as an active, explorative activity, and this is often missed by those who rely solely on visual metaphors. "We must," says Jim Garrison, "overcome the 'spectator' stance and realize the only access we have to reality is through our practical, *active* participation in it" (Garrison 2001, p. 289). Although a pragmatist will not say that the epistemology of the eye is *untrue* from some God's eye perspective (itself a visual metaphor, of course), she or he will, like Garrison, insist that it does not respect the basic anthropological idea that humans are principally actors (and only secondarily spectators), which is an idea that in other respects is foundational for modern democracies. Two points must be made in this context. First, we do obviously not wish to deny that people may learn from observing or from listening to a teacher speak in a classroom or at a course (indeed, this can be an important way to learn), but the Deweyan epistemology of the hand teaches us that also such learning has an active element. Again, we very rarely, if ever, simply *see or hear* something as in a flash without preceding or following happenings, but we *look and listen* as part of our ongoing activity, especially when we feel a need to take in information in order to redirect our habits. Second, it should be borne in mind that the metaphor of the epistemology of the hand is exactly that (a metaphor), and, as a metaphor, it is in a sense really a metaphor for the whole active body

as that with which we manipulate things and operate in the world. It is important to remember this so as not to trivialize the Deweyan approach into something like a celebration of "doing" at the expense of "thinking." The point is rather that thinking is itself an activity in the ongoing process of taking care of problems encountered in everyday life.

Existential Dimensions of the Epistemology of the Hand

In his recent book on *The Craftsman*, Richard Sennett places his own work squarely within the pragmatist camp. His book contains systematic historical and phenomenological descriptions of the exercise of craft knowledge, for example, in a chapter simply entitled "The Hand." In Germanic languages, a craft is a *Handwerk* (in German) or *håndværk* (in Danish), literally "the work of the hand." But Sennett's book is also a thorough defense of the existential and ethical values of craftsmanship, of craftsmanship as a form of life. In our terms, he demonstrates that the epistemology of the hand is not a value neutral depiction of "how it is" with human knowing but rather a viewpoint that takes part in the moral conversation concerning what is good and proper for human beings. Epistemology as traditionally conceived is concerned with the so-called *cognitive* values (truth, validity, justification, etc.), but, as pragmatists such as Hilary Putnam have argued, cognitive values and ideals "only make sense considered as part of our idea of human flourishing" (Putnam 1995, p. 43). As Charles Taylor has shown in numerous works, but perhaps most clearly in *Sources of the Self*, the values promoted by the epistemology of the eye are quite consistently individualist with a focus on personal autonomy and rights and constantly run the risk of collapsing into subjectivism (Taylor 1989). This is hardly surprising given that knowers are here depicted as isolated atoms, whose only evaluative contact with the world is through subjective affect. Few writers, however, have developed an account of the values inherent in the alternative epistemology of the hand, but Sennett can be seen as having begun this vast task.

In previous works, Sennett articulated a particularly influential critique of contemporary consumer culture and its "flexible capitalism." He has analyzed how this culture leads to a "corrosion of character" in our workplaces (Sennett 1998) and how it forces us to consider ourselves as consumers rather than citizens (Sennett 2006). His work on craftsmanship can be seen as a rather more constructive attempt to point to existential resources and moral practices that are still with us, but that we have forgotten in our times with our incessant focus on flexibility and the short-lived. Craftsmanship, for Sennett, is not just a name for old production practices such as carpentry or masonry. It "names an enduring, basic human impulse, the desire to do a job well for its own sake" (Sennett 2008, p. 9). Doing something well for its own sake has been forgotten as a basic human value, Sennett claims, in our instrumental approach to life, where most things that we do are stepping-stones to further success in the future. People who aspire to be good craftsmen today, Sennett says, are therefore often "depressed, ignored, or misunderstood by social

institutions" (ibid., p. 145), perhaps because they do not square with the reigning subjectivist ethos of our times. For what it means to do something well, according to the craftsman's form of life, is not a subjective issue, that is, something that an isolated individual may decide for herself or himself. Rather, as Sennett says, "craftsmanship focuses on objective standards, on the thing in itself" (ibid., p. 9). There must thus be a superior who sets standards and trains newcomers in the arts and practices of the craft, that is, someone who inculcates the proper habits in apprentices (ibid., p. 54). Good skills, for a craftsman, are inseparable from ethics since work skills involve such virtues as perseverance, loyalty, and commitment to standards that transcend an individual's perspective. First and foremost, the craftsman represents the special human condition of being *engaged*, and Sennett advocates the kind of modern pragmatism that "could be said to take on faith Jefferson's belief that learning to work well is the foundation of citizenship" (ibid., p. 290).

If an isolated theoretician is the ideal human character inherent in the epistemology of the eye, the craftsman incarnates the practices and values of the epistemology of the hand. The values here are at once cognitive and ideally result in useful products, but also ethical, with the craftsman being committed to historical traditions and communities. For the early Greeks, as Sennett recounts, craft and community were indissociable (Sennett 2008, p. 22), and he applauds pragmatism for having reinvigorated the compound of ideas that depict the human being as a working and acting creature in communities. Learning to work well, however, is not something that one does in a day or a week. It requires years of practice and skill formation. But from a political point of view (particularly Sennett's avowed leftism), there is the great advantage of craftsmanship and working well that the capacity to do so is shared rather equally among humans (ibid., p. 285). In principle, anyone can acquire the skills of working well and doing something well for its own sake, but our educational systems are often more geared to fostering individual intelligence and creativity, and Sennett laments the modern managerial ideology that urges even the lowliest worker to work creatively and demonstrate originality (ibid., p. 73). Learning to work well, unfortunately, is antithetical to much that goes on in current educational practices:

> Modern education fears repetitive learning as mind-numbing. Afraid of boring children, avid to present ever-different stimulation, the enlightened teacher may avoid routine – but thus deprives children of the experience of studying their own ingrained practice and modulating it from within. (Sennett 2008, p. 38)

Today's ideal of teaching implies that it must be fun and entertaining. Learners are used to high speed and stimulation from television and computers, and some teachers may feel pressed to ensure the same amount of stimuli in class. Repetition and imitation are often viewed as anachronisms and as barriers to fostering creativity and learning. Paradoxically, recent research on how to foster creativity within a classroom underlines the importance of absorption in and staying with a particular domain (Tanggaard 2008). Contrary to widespread opinion, creativity does *not* seem to be antithetical to craftsmanship and hard, engaged work. And further, viewed from the epistemology of the hand, creativity is not confined to some particular elite

"creative class" or special sectors of the economy but is an inherent aspect of practical work. In a study that asked whether creativity can be taught, Lindström (2007) reports how students in the final year of comprehensive school, who attended Stockholms Bild och Formklasser (The Stockholm Visual Arts and Craft Classes), completely outdistanced students of the same age in ordinary classes. In the Stockholms Bild och Formklasser, children were given the opportunity to get deeply involved in and complete their various projects, and the art and craft teachers, whose classes are half the size of regular classes, "are in constant dialogue with the students about their work as it evolves" (from teacher interviews) (Lindström 2007, p. 62). Five hundred students participated in the study, and their student portfolios were assessed independently by both the student's own teacher and another teacher. On this background, Lindström proposes that creativity is fostered in schools when learners are given assignments that extend over a significant period of time and when teachers emphasize the process as well as the product and provide ample opportunity for research, experimentation, and revision. Also, learners should be encouraged to integrate production with perception and reflection by looking for models to emulate and finding links between those models and one's own work. Finally, feedback from peers and teachers is an important key. These dimensions are all important in crafts and in the epistemology of the hand.

We would argue that experimentation, training, and an adequate amount of feedback can be viewed as "a pedagogy of reiteration," as the basis of creative retransformations within an epistemology of the hand. No human being is able to be creative or original out of the blue, although this idea may serve as a captivating fantasy for the lazy person. The basis for creativity is not flexibility in a vacuum or simply "thinking out of the box" but is found in the ability to "dig deep" within a particular field, which requires considerable time and hard work. The implicit values of craftsmanship that point towards virtues such as working hard and staying with the same are not in opposition to creativity but conditions for its realization.

Education and the Epistemology of the Hand

In contemporary consumer society with its constant experiential bombardment, the eye becomes more impatient than ever. The hand, in contrast, must be patient if it is to acquire adequate habits and skills. Sennett's critique of the contemporary labor market and educational system, both of which eschew routines, leads us to ask how education will look if we base it on the epistemology of the hand rather than that of the eye. Obviously, in practical terms, it may look something like Dewey's laboratory school, where children used their hands to work together as small apprentices – building houses, growing crops, and making clothes – under the guidance of teachers and where they would consult books and received knowledge only when they ran into problems (Condliffe Lagemann 1989; Dewey 1900). Such pedagogy is the concrete result of taking very seriously the move away from the spectator theory of knowledge, but here we wish to dig a little deeper.

Recently, pragmatism as an approach to education has been taken up in quite a radical way by Biesta and colleagues (Biesta 2004, 2006; Osberg et al. 2008). One line of argument that these authors pursue follows the pragmatist insistence that educational processes should not prepare people to participate in a world that is finished and static. The epistemology of the eye has a tendency to favor theoretical knowledge of a reified world, in the extreme case of Platonic Forms, but the problem is – as we have known at least since Darwin – that the world is not finished and static. Instead, for pragmatists, the world is "unfinished, growing in all sorts of places, especially in the places where thinking beings are at work" (James 1907, p. 116). Thus, *the* educational goal for pragmatists will involve a formation of humans that enable them to participate in the creation of this unfinished world (Osberg et al. 2008). This is a world for which there is no manuscript prepared in advance but where we must adjust and reconstruct ideas and practices as we go along.

To return to the historical narrative that opened this chapter, we can say that premodern educational practices were structured as ways of *presenting* knowledge to newcomers (Osberg et al. 2008). In medieval times, for example, children would participate directly in the practices that were of societal value and which thus needed to be reproduced (farming, masonry, etc.). With modernity, nation states arose with mass educational systems, for nations needed educated people to participate in the administration and the army, and it was of course impossible to squeeze "the real world" in its entirety into the new scholastic system, which meant that it became an important task to decide which elements of the world that should be *represented* in schools. To simplify a very long and complex historical development, the premodern notion of direct *presentation* gave way to a modern notion of knowledge as *representation*. This has been supported by the epistemology of the eye according to which schools are supposed to show learners what the real world looks like outside schools. Consequently, at examinations, learners are evaluated in terms of how well they in turn represent the world as it is in itself.

Against this, the pragmatists claim that neither presentation nor representation is a useful model for teaching and learning, in schools as well as in workplaces where much contemporary education and learning takes place. The reason is, as we have argued, that knowledge is not a representation of the world but rather a tool for manipulating and coping with the world. In this sense, we can say that the pragmatists offer us a postmodern account of knowledge as *manufactured* (literally "made by the hand"). Knowledge is not about being presented with something or being able to represent something but is about being able to create. Accordingly, teaching should not simply reproduce the world as it is, for the world "is" not in any fixed form. Instead, education should cultivate skills of creation and moral responsibility for what we create. The implications are quite radical: For the pragmatist, the central educational goal is creativity, but creativity is always connected to actions within social groups and communities (Joas 1996).

In our view, learning to create particular things is not so much a matter of having an extensive portfolio of abilities without reference to communities of practice. Surely, what is acknowledged as creative, valuable, and thoughtful depends upon the values within particular communities. If we are right in assuming that learning

and education are not primarily about the reproduction of fixed worlds, but about the continual manufacturing and recreation of new worlds in which people may flourish and continue to live better lives, we recommend a rehabilitation of pedagogies of craft such as Dewey's and also Lev Vygotsky's. We should also continue to study the organization of learning and education within an epistemology of the hand, and studies of workplace learning would be ideal places to start such inquiries (see e.g., Elkjær 2008). Both Dewey and Vygotsky emphasized learning through practical activity and experimentation, and in particular Vygotsky (1962) underlined the importance of the social organization of learning, facilitated by guidance from more competent others. Both authors can be seen as educators working within the epistemology of the hand in which knowing and learning are aspects of the development of social groups and persons working and participating within communities. Obviously, there are also differences between Dewey and Vygotsky, notably concerning the latter's distinction between everyday and scientific concepts, which is a distinction that sits uneasily with Dewey's insistence on the continuities of everyday and scientific modes of inquiry. But they are definitely united in the emphasis they put on practical activity and on the social and cultural dimensions of learning and human development.

Consequently, historical experience and the past is the horizon for the acquisition of new experiences and the continual recreation of new kinds of products and knowledge. In this respect, it becomes meaningful to view learning through a metaphor of apprenticeship and to view acquired experience, knowledge, and authority as a ground upon which the formation of personal experience and meaning is realized. In this case, the road to freedom and creative independence is built out of social regulation and the cultivation of relations between hands, bodies, and the world. However, the Western Cartesian splits between the hand and the head, and between the self and the world, have made it difficult to think of learning as a continual movement *into* the world. When it comes to the question of learning, the dominant picture has been one of learning being a subjective and mentalist movement *away* from the world, visualized in the image of the philosopher isolating himself in a tower room to speculate about the world (Lave 1988). According to this image, we should move away from something in order to get a clear *view* of it, a *perspective* on it. Against this, we wish to point to the fact that if we use the hands to get better acquainted with the world, to get a better grip, learning involves moving *closer* to things, moving *into* the world. The metaphor of learning as a question of movement away from the world makes it difficult to recognize that even the production of valued thinking is also a matter of craftsmanship.

One ambition of the epistemology of the hand presented in this chapter is to deconstruct all distinctions between the free and meditative (and creative) thinker of the mind and the mindless worker of the hand. To do so, one can draw on recent studies showing us that not only traditional crafts such as carpentry or hairdressing are learned by hand in communities that reassemble the organization of a traditional craft workshop. In an interview study about the narratives of artists, Mishler (1999) underlines how art is often learned by doing a lot of craftwork. And Kvale draws on studies of the lives of Nobel laureates to make the point that education and training

within their fields is frequently based on what has been termed "a pedagogy without words" (Kvale 1999). For example, in a research lab or workshop, little formal teaching takes place. On the contrary, research is learned by doing research, learning from mistakes, experimentation, and feedback. Feedback can be provided to the novice as a pat on the shoulder, and it can be felt by the novice as the right kind of feeling in the stomach. All of this is a matter of developing the novices' sense of quality. Feeling as such is important in the epistemology of the hand, although it is something we have not been able to describe in detail in this chapter. Basically, we do not simply grasp something, we also "feel" it when grasping it, and not just in the sense of having sensations but also in the emotional sense, because something (and often a lot) is at stake when we learn. Dewey himself described reflection as "the painful effort of disturbed habits to readjust themselves" (Dewey 1922, p. 76), which underlines the affective dimension of human inquiry.

An interview study of seven Nobel Prize laureates within the field of economics recently showed that the basis of their success was long-term training and education in the lab or workshop of a former Nobel Prize laureate whose work they had transformed (Jalil and Boujettif 2005). Of course, one problem with apprenticeship in this respect is that it may be quite elitist. A certain amount of selection has already taken place before the training is begun, and this may explain why the masters need not teach formally the skills of research. Another and related problem may be that the sense of the value of repetition and long-term training may in fact be acquired as a kind of habit, which means that those predisposed to participate in these kinds of communities are also those who gain access to these valued communities where the standards of good research are at hand (Bourdieu 2004).

Surely, getting access to learning and education will always contain problems of selection whether at school or in workplaces. An epistemology of the hand cannot remove such issues. However, to see education as a matter of reconstructing social relationships in order to become able to adjust to the world in which we live could revitalize our ways of doing, and thinking about, education and work. If ideas and theories are tools to cope with the world, they should be learned as such. We should educate for the future, but on the background of a past that we must learn to understand so that we can reconstruct social relationships for the better. Although an epistemology of the hand will not in itself solve social problems of classism and other inequalities in contemporary learning society, it may alert educators to the fact that there are many legitimate forms of knowing and that specific historical conditions have been instrumental in developing our culture's lack of respect for craft knowledge and practical forms of education. Focusing more on the capacity to work well (addressed by Sennett), and working well *together*, rather than simply augmenting the contemporary focus on individual talent and learning styles, could also in our eyes have fruitful consequences for both school- and work-based learning policies informed by the epistemology of the hand. We should never ignore the possibility that negative effects may result when epistemologies and pedagogies filter down to classrooms and workplaces, and this also applies to our suggestions, but we believe that a pragmatist ethos is in a unique sense self-correcting. When one gives up the quest for fixed ends to pursue – in philosophy as well as

in education – one can instead engage in gradual amelioration of social and educational problems, and we have argued that the epistemology of the hand can today be instrumental in such amelioration.

Concluding Perspectives

We have argued that an epistemology of the eye underlies much of Western philosophy and education, and we have presented Dewey's critique of this, and also outlined what we find is his very useful alternative, which we have called the epistemology of the hand. Furthermore, we have shown through the work of Mark Johnson how epistemologies and their conceptions of knowing and understanding are rooted in various embodied experiences, and we have also addressed the existential and moral aspects of the epistemology of the hand (with the help of Sennett) and discussed some implications for education, learning, and creativity (following Biesta).

In conclusion, we can summarize and say that the epistemology of the hand offers us first and foremost a temporal understanding of knowing. This is in stark contrast to the epistemology of the eye that was built around a spatial understanding of knowledge: Knowledge is correct representation in a spatial sense – and something counts as knowledge only if there is some kind of isomorphism between representation/description/theory and how the world is (Osberg et al. 2008). The eye gives us a certain concrete *perspective* on the world, and one common metaphor for theory is perspective – clearly a spatial notion. But for pragmatists, theories are not perspectives that enable us to *see* the world in a certain way. Theories are not perspectivist standpoints. Rather, they are renegotiation tools (ibid., p. 218). They are tools that we use in our transactions with people, things, and nature. As tools, they are *manufactured* by human beings, and we use them to *manipulate* things and *handle* situations. Knowledge is about the relationship between what we do (actions) and what subsequently happens (consequences), and, for pragmatists, theories are evaluated according to how well they mediate this relationship. Knowledge is thus a temporal process rather than a spatial one, a process that signifies a form of doing. It is also a process that necessarily involves creativity, not as a romantic notion pointing to the lonely individual genius but as creativity of action – a creativity of the hand. Education should supply arenas in which to collectively create new worlds rather than simply replicate the past (Biesta 2006).

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Chapter 12
Pragmatism, Meaning and Learning in the Workplace

Paul Gibbs

In a review of the some of the most important early texts on pragmatism, Russell not only declared that the texts embodied the prevailing spirit of pragmatism but went further. In what might be a credo for work-based learning, he said that pragmatism itself achieved wide appeal through these texts: the 'inventor, the financier, the advertiser, the successful man of action generally, can find in pragmatism an expression of their instinctive view of the world' (Russell 1909/2002, p. 282). It is this comment that foregrounds this chapter's contribution in considering how pragmatism, particularly the neo-pragmatism of Rorty, engages with workplace knowledge and learning.

The history of early pragmatism tends to be portrayed as an American movement vitalized by Peirce, James and Dewey, with a significant contribution from the Oxford philosopher, Schiller, whose essay on humanism was published in the same year as James' own 'What Pragmatism Means' (1904/2007) and was much admired by him. Indeed, the early 1900s were landmark years for pragmatism, for in the same year, Peirce's attempt to clarify the blurred meaning of pragmatism appeared as 'what pragmatism is'. Historically, pragmatism is a strangely compelling mix of scepticism, especially of logic and empiricism, with no recourse to a metaphysical precondition. Meaning is what we take it be or, as Rorty suggests, it is verifiable belief. As James affirmed in his essay on pragmatism, 'Such then would be the scope of pragmatism – first, a method; and second, a genetic theory of what is meant by truth. And these two things must be our future topics'.

This very much follows Schiller's humanist approach to pragmatism as a method that supported his not uncontested (see Russell 1909/2002, p. 292) idea of pragmatism. Schiller positioned pragmatism as 'a special application of Humanism to the theory of knowledge', and his discussion on pragmatism that so annoyed Russell considered next the seven meanings of pragmatism. He suggested these were based

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on the following: (1) truths are logical values, (2) the 'truth' of an assertion depends on its application, (3) the meaning of a rule lies in its application, (4) all meaning depends on purpose, (5) all mental life is purposive, (6) a systematic protest against all ignoring of the purposiveness of actual knowing, and (7) a conscious application to epistemology (or logic) of a teleological psychology that implies, ultimately, a voluntaristic metaphysic (1905/2009). This is a teleological basis for pragmatism, and Schiller felt that this method centralized the notion of humanity as the sole arbiter of truth, to be interpreted through the precepts of human awareness rather than the notion of other truths. 'Humanism is really in itself the simplest of philosophic standpoints; it is merely the perception that the philosophic problem concerns human beings striving to comprehend, a world of human experience by the resources of human minds' (1905/2009, p. 12). Schiller's embedding of pragmatism in his notion of humanism concerned not only Russell but the originator of the term, Peirce. When faced with the wider adoption of 'pragmatism' into common usage, Peirce responded, rather unsuccessfully, with a new term, 'pragmaticism'. He referred to this as the maxim of a classification-based condition. Peirce's notion was of a pragmatic method of inquiry, not experimental in the sense of traditional science, for it 'is not in an experiment, but in *experimental phenomena*, that rational meaning is said to consist' (1998/1905, p. 340). Their definition was needed by Peirce to avoid confusion created by the more general use of the term and especially to avoid the term being substituted for 'practice' (as Elkjaer perhaps does in an interpretation of Dewey's notion of experience, 2009, p. 88).

For all the early pragmatists, truth was defined in terms of consequences; validation of truth was by testing when our historical and common sense understanding of the world failed. It is James, however, who is perhaps the closest to bringing early pragmatism into a learning perspective, and I quote at length:

> The observable process which Schiller and Dewey particularly singled out for generalisation is the familiar one by which any individual settles into new opinions. The process here is always the same. The individual has a stock of old opinions already, but he meets a new experience that puts them to a strain. Somebody contradicts them; or in a reflective moment he discovers that they contradict each other; or he hears of facts with which they are incompatible; or desires arise in him which they cease to satisfy. The result is an inward trouble to which his mind till then had been a stranger, and from which he seeks to escape by modifying his previous mass of opinions. He saves as much of it as he can, for in this matter of belief we are all extreme conservatives. So he tries to change first this opinion, and then that (for they resist change very variously), until at last some new idea comes up which he can graft upon the ancient stock with a minimum of disturbance of the latter, some idea that mediates between the stock and the new experience and runs them into one another most felicitously and expediently. (1904/2007, p. 148)

In the wide scope of Dewey's interests, we find the first developed notion of knowing in educational practice, and it is to his work that I now turn.

Quinton's opening line of his essay on Dewey reads, 'Pragmatism began as a theory of meaning' (1977, p. 1) and opens up an approach for this chapter, for it is meaning that drives the search for curiosity and edification apparent in contemporary Deweyan philosophy (e.g. Wittgenstein, Heidegger and Rorty). Dewey's pragmatism has its roots in Peirce, but also more clearly in James, and it is revealed

through the experiential consequences in the future or, as Rorty uses the term, in what we can take as justifiable belief. This introduces an approach to knowledge that makes it fallible and corrigible to claim knowledge of an idea or entity and claim that it 'warrants belief'. That belief is what is required for action, thus making Dewey's theory of knowledge a theory of hermeneutics and of action and, by extension, a theory of experiential learning how to be. Consider the following from Dewey and Bentley's, 'The Knowing and Known':

> knowing is co-operative and as such is integral to communication. By its own processes it is allied with the postulational. It demands that statements be made as descriptions of events in terms of durations in time and areas in space. It excludes assertions of fixity and attempts to impose them. It installs openness and flexibility in the very process of knowing. It treats knowledge as itself inquiry –as a goal *within* inquiry, not as a terminus outside or beyond inquiry. (1976, p. x)

In thus positioning knowledge, he shifts the analysis to inquiry rather than epistemology. In this respect, Dewey's approach echoes a grounding Darwinism and Hegelian idealism (Pringe 2007).

Dewey, especially, contests the notion of experience both as an accumulation of knowledge and as a dialectic transaction examination. In this sense, it is not trial by error but informed experimentation, the environment thus blurring subject and object. This notion of experience leads Dewey to develop a notion of inquiry that is activated by a rupture of the status quo. A rupture is first felt emotionally and then developed through a process of hypothetic base inquiry. The results of inquiry are not radical changes in the state of one's understanding but an evolution, a change where premises are questions and circumstances tested. This process is undertaken with the concepts, theories and the experiences we have at hand and is facilitated by theory and concepts, for these offer alternative ways by which others, be they teachers or craft masters, can help to provide new ways for the learners to understand what they are experiencing. Learning thus is not solely about action; it is equally about a reflection on concepts, theories and experience. Moreover, not all action is learning – consider ritualized activities.[1]

Experience thus provides a platform for building a view of the future, not an epistemology based on what has happened but on what might happen, with education as a way of communicating what one has learnt. Rorty, we will see, called this 'pedagogy' (1999b), and for Dewey, it is a process of anticipatory imagination. Moreover, such a view holds that what is known is provisional, fallible and correctable. Schiller offers the example of the abstraction of arithmetic when he argues that 'two and two make four, is always incomplete. We need to know to what "twos" and "fours" the dictum is applied. It would not be true of lions' drops of water, nor of pleasures and pains. The range of application of the abstract truth, therefore, is quite limited' (Schiller 1905/2009).

Dewey's approach places the inquirer as the active agent of knowledge creation, testing it against the context in which it was rationally and socially constructed or

[1] 'Theories thus become instruments, not answers to enigmas, in which we can rest' (James).

adopted. His contestation of propositional knowledge has its roots in Aristotle's work and the more recent philosophies of Kant, Merleau-Ponty, Heidegger, Bourdieu and contemporary approaches to learning and knowledge by post-structuralist thinkers such as Derrida (2004), Lyotard (1984), Foucault (1980) and Winch (2010). Often quoted as a significant but not unchallenged contribution is Ryle's development to epistemology; we know the mode of both 'how' and 'what'. Moreover, the insight of Polanyi (1966) is to acknowledge tacit as well as explicit knowledge as a legitimate notion.

From these central premises, other authors have developed an array of perspectives from which we can come to know within the workplace and how we might manifest that knowledge. Moreover, having been acquired either consciously as coded or experientially and then used in practice, knowledge attracts attention when we consider how we employ it when exercising our judgement to direct practice in new, innovative work spaces. The context of knowledge acquisition and creation in its many forms has also received considerable attention. Work has a conjoint interdependence of social and individual agency (Billett et al. 2005), and judgement based on hermeneutics uses neither a research method intent on holding apart subject and object nor an alienating academic discourse for the investigation of what is a workplace phenomenon (Farrell and Holkner 2006). Beckett and Hager (2002) embrace the notion of *phronesis*, yet want to produce an 'improvement on this analysis whereby we can acknowledge that workplace learning is a phenomenon deep within practical "doing" towards certain localised values' (2002, p. 184).

Knowledge as Validated Belief

As practitioners come together by being involved with one another in action, they may become a community of practice wherein they learn to construct shared understanding amidst confusing and conflicting data. The community of practice returns knowledge back into its context, so that groups learn to observe and experiment with their own collective, tacit processes in action. Action science is called upon to bring the individuals' and group's mental models, often untested and unexamined, into consciousness. It is a form of 'reflection-in-action' that attempts to discover how what one did contributed to an unexpected or expected outcome, taking into account the interplay between theory and practice.

My arguments from here are based on an interpretation of the principles of Rorty's neo-pragmatic, interdisciplinary notion of knowledge that seeks to improve current understanding and that renders as truth that which is justified in terms of belief and explanation. Indeed, this leads Rorty to suggest that we drop the notion of truth, at least in any sense implying correspondence with an external reality and, following this, the notion of disinterested pursuit of knowledge of such truth. As Rorty projects this dissolution of truth for pragmatists, he states that whilst 'there is obviously a lot to be said about justification of various sorts of beliefs, there may be

little to say about truth' (1998, p. 19). Under such a position, epistemological claims are based on plausible argument and judgements and are inherently uncertain, but sufficiently reliable to function for us in our everyday world of work as creative innovators.

I will discuss the application of the Rortyan ideas of justification, edifying conversation and solidarity to the trilogy of the university's function: knowledge creation, teaching and service. Such an approach leads to the university being defined in terms of its core functions of conversational learning, knowledge realization and solidarity. Rorty, like Dewey, positions knowledge as the connection for social solidarity rather than knowledge as power (for instance, as emphasized by Foucault) and, as such, is more supportive of hope than despair. The hope is not as the realization of correspondence with some outside essence revealed through refined method, but as the constitution of a future identity where claims for knowledge are proposals for action. From this Rortyan perspective, we might consider the university's faculty members as those whose function is to act in our technological way of being as an 'interpreter for those with whom we are not sure how to talk. This is the same thing we hope for from our poets and dramatists and novelists' (Rorty 1982, p. 202). As Arcilla comments, 'teachers are in a position to turn the tide of epistemological despair into educational hope' (1990, p. 35).

The edifying conversations are engaged in by 'practical epistemologists' (Barnett and Griffin 1997, p. 170) and are not just intent on generating meaning, but allowing personal growth and development through the re-creation of networks of beliefs and desires. It is not the rehearsal of *habitus*, but the creation of space to question and to build. It is the creation of Rortyan self-creating ironists, not confirmation of commonsensicalists[2] who have previously avoided formal higher education or only undertaken directed vocational programmes. The edifying conversations 'serve not only to make it easier for the community to accommodate each of our edifying projects but also to root those projects, and us, in the shared tradition from which they initially drew their resources' (Arcilla 1990, p. 37). My own emphasis on conversations is to enable a language game to be constructed between the world in which the university exists and the world of work and labour, so that a new, more relevant learning community can evolve.

The notion of conversation as a generator of knowledge is not explicitly Rorty's notion (see for instance Plato's *Theaetetus* and Schiller's commentary on this, 1905/2009, and more contemporarily the work of Gadamer 1979, Habermas 1984, or Bernstein 1983), but in his work, we find a notion of being similar to that of Heidegger (2003), where the functionality of learning is best interpreted as a hermeneutic engagement with others. Through this thinking, we develop understanding by means of the use of common language that we will take as knowledge ('how topics are defined in terms of one another and how they relate to other topics to form a coherent conceptual system', Ford 2005, p. 374). Under this notion, knowledge has its own lifespan and might be temporary –for example, in deciding if it is raining –or

[2] See Rorty, 'Private irony and liberal hope', 1989.

more permanent and enshrined in a notion of fact or theory, or intermediate when it is evidenced in practices. This is not an attempt to find an alternative objective reality that is certain, reified by an unswerving notion of knowledge as absolute truth, but to define the level of confidence we can have in practical judgements.

Such a neo-pragmatic notion of knowledge needs neither a metaphysical classification of modes nor systemic ideas of codification. All can be incorporated and recorded in the edifying conversation, supported by the justification and confidence in the evidence offered. In this way, what we consider to be meaning is situated meaning, developed in a specific conversation in a specific location whose applicability is then tested over time and space and its validity and reliability assured – somewhat like Wikipedia. Moreover, what this 'democratic process of inquiry determines is which descriptions of the human environment, natural as well as social, best enable human beings effectively to interact with it to satisfy their needs and desires' (Elliott 2006, p. 179).

The vocabulary of knowledge is culturally determined and acts to inform, but also to include or exclude those without the appropriate characteristics to belong to a certain form or category for the conversation. Wittgenstein called these 'language games'. According to Rorty, we engage in edifying discourses that seek to help others 'break free from outworn vocabularies and attitudes, rather than to provide "grounding" for the intuitions and customs of the present' (1979, p. 12). The cultural role of such edifying conversations is 'to help us avoid the self-deception which comes from believing that we know ourselves by knowing a set of objective facts' (1979, p. 373). Taking this stance helps us describe and thereby recreate our world. The Rortyan conversation is necessarily ongoing, for it is not a matter of discovering or seeking essences, but of being prepared to listen and learn from others. It requires that we are constructing our own world views as part of our work world with others. In so doing, we reflect upon what our identity is, both in the specific situated learning environment presented and in how we take a stance on our becoming with others.

Like language games, Rorty's vocabularies are 'useful or useless, good or bad, helpful or misleading, sensitive or coarse, and so on, but they are not "more objective" or "less objective", nor more or less "scientific"' (1982, p. 203). For Wittgenstein, our belief is not 'single axioms that strike me as obvious, it is a system in which consequences and premises give one another *mutual* support' (italics in original, 1975, §142, 21e). Moreover, he argues our knowledge forms an enormous system: 'And only within this system has a partial bit the value I give it' (1975, §420, 52e). From Wittgenstein, I take it that documentary evidence, which we take to be empirical and measurable evidence[3] when compared to the imponderable *a priori* form of knowledge, is more commonly considered sure, that is, reliable and certain.

[3] This is based on the passage, 'The question is; what does imponderable evidence *accomplish?* Suppose there was imponderable evidence for the chemical (internal) structure of a substance, still it would have to prove itself to be evidence by certain consequences which can be weighted. (Imponderable evidence might convince someone that a picture was a genuine. But it is possible for this to be proved by documentary evidence as well)' 1999, p. 228e.

For Wittgenstein, however, documentary evidence is not certain; he refers to certainty as being only a personal attitude, a rule of a language game. Indeed, it is in Wittgenstein's (1999) language games that meaning is revealed though use in different contexts – law, social and natural sciences –but where in all uses there is an observed familiarity that gives meaning to entities: 'For if you look at them you will not see something that is common to all, but similarities, relationships, and a whole series of them at that' (Wittgenstein 1999, §66, 31).

What Should We Take as Evidence of Knowledge?

How do we know –for instance, in formulating policy –what is known and thus commonly assumed to be assured? The restricted use of the range of valid epistemic claims for knowledge inhibits our ability creatively to form new knowledge or to verify the existence of entities that remain concealed through empirical methodologies (I am thinking of action research, case studies and one's own dreams, fantasies and motivations). How can we establish 'evidence-of' that provides pragmatic reliability whilst not falling foul of rigour? Perhaps, we start with the right question if we ask, 'What act or agency signifies that evidence is "evidence-of?"' This question may be modified when we enquire what level of confidence we have in our evidence to reveal that it is 'evidence-of' something. The question then becomes not 'What is evidence?' in any specific disciplinary sense, but 'in what can we generally have confidence and what is required for us to hold such a belief as to the role the entity plays in providing "evidence-of" something?' This realignment of what is knowable into what is it prudent for us to believe shifts the point of reference from certainty to judgement.

We develop and form solidarity with a community through our choice of story that we tell to identify us with the wider context of that community. Thus, as Rorty proclaims in his important work on knowledge, *Solidarity or Objectivity*, when a person seeks solidarity, 'he or she does not ask about the relationship between the practices of the chosen community and something outside the community' (2002, p. 422). Rather, what is sought is pragmatic intersubjectivity, where what is believed works and what is sought is something better. Knowledge, then, is 'simply a compliment paid to the beliefs we think so well justified, that for the moment, no more justification is needed' (p. 425). For Rorty, knowledge is contingent upon access to a particular language game that depends on the convergence of social and historical factors to determine the type of conversation taking place. As he explains, 'if we see knowledge as a matter of conversation and of social practice, rather than as an attempt to mirror nature, we will not be likely to envisage a meta-practice which will be the critique of all possible forms of social practices' (p. 171); that is, we need not substitute facts for interpretation. Knowledge justification democratically emerges from a community based on Socratic edifying conversations and, 'while uniform agreement may not necessarily ensue, no difference of opinion so intractable as to bar solidarity with one's fellow could arise' (Nelson 2009, pp. 500–502).

Where does this lead up to in the notion of knowledge realization? We normally recognize that activities and practices embody knowledge, and knowledge is determined by its usefulness to us to engage with and cope in our everyday activities. Moreover, we generally accept that what one knows might be transferred from the original domain of its justification into other domains for use, but the success of this depends on the ability of those who will use the knowledge to be able to define it as such in their own language games and accommodate the knowledge through their own realization of meaning in ways that continually work for them.[4]

It is often the case that the uncertainty of our worlds requires judgements to be made under conditions of uncertainty and where what is taken as knowledge is a fallible, albeit valuable and worthy, ground on which to base action. However, this fallibility arises because it does not conform to existing descriptors of propositional knowledge and was never intended to be the type of knowledge that can be generalizable and based on the authority of some recognized methodology. It is fallible because it is conspicuous and temporary. Its lifespan is whilst it retains our acceptance of usefulness, being good enough for purpose. It becomes part of practice and is retained, developed and used until it becomes redundant. This type of knowledge is defined by its practical worth by those who use it wisely in and for the world. Such claims, as I will argue later, are created within edifying conversations with those –such as the traditional university –that stand outside the everydayness of society and develop their own internal edifying conversations to be shared with others. A notion of an edifying conversation is well developed in Burbules (1993). Dependent on a Gadamerian perspective, Burbules argues that a conversation adds tolerance, understanding and meaning, and in so doing, we 'speak with and listen to one another in a pedagogical communicative relation whose divergent aim is not a correct and final answer, but a heightened sense of sensitivity and understanding of other persons, and through understanding them, newly understanding ourselves' (1993, pp. 115–116). The conversation can then maintain difference whilst creating common new understanding and justification.

This is a very different form of knowledge, where the practitioners and the knowledge are ontologically and epistemologically linked through the Rortyan notion of edification. The role of reified method contributes nothing to the value of the knowledge in question. Certainly, this form of knowledge includes dogma, myths, psychotherapy and poetic interpretation. As Peters and Ghiraldelli describe, it 'puts science and philosophy on par with the rest of culture and to emphasize a hermeneutic model of conversation as constituting the limits and possibilities of discourse and agreement' (2001, pp. 2–3). The meaning of knowledge is pertinent whilst it proves to be useful in enabling us to understand and cope in and with our environment. This knowledge gains its authority from being developed in the world of activity and in being validated in context. Its function is to resolve problems that occur in our everydayness. It has no claim to persist beyond this practical function;

[4] As Rorty puts it, '*we do not know what success would mean except simply* "*continuance*"' (1982, p. 172, italics in the original).

indeed, the intent is that it is superseded by more beneficial knowledge. It is not at odds with codification, for this is how it retains *conspicuousness* when it is absorbed in practice. This codification might take the form of revisions to procedures and changes to policy. However, the judgement to codify and how manifested that area function of the community of practice. Such knowledge is not codified in theorem but in processes; it is the knowledge required to understand one's way of being in the work, and in this sense, it is both personal and codified. Its persistence is not questioned by empirical experimentation, but in the way it works and is talked about – its usefulness.

When these conversations take place in a community of practice, they might involve the negotiation of meanings of new forms of knowledge or the validation of generally accepted findings. The skills that facilitate this are the skills of the recipient community (or members, leaders, teachers and mentors within it) to learn and give meaning to this new information as presented to them. The use of a pragmatic interpretation of information is in the sense of the beneficial consequences of what constitutes knowledge, not an epistemic justification. This is where this approach differs from others' discussions of knowledge. For Rorty, there is 'no activity called "knowing" which has a nature to be discovered, and at which natural scientists are particularly skilled. There is simply the process of justifying beliefs to audiences' (1999a, p. 36). Following this approach, there is no need to construct propositions to reify the reality of the word game and then discuss the realized knowledge in terms of applied, theoretic, Mode 1 or Mode 2 knowledge.

To be able to undertake and participate in these learning conversations, however, there are prerequisite skills and capacities that determine whether and at what level one might be included or excluded from the language game conversations. I might, for instance, compare this with Wenger's 1999 discussion of how we learn, through the metaphor of being a community member. Here, identity is honed from a community of practice with cultural artefacts such as a specialist language, tools, concepts, roles and procedures, tacit and codified learning, compared with production mode on Mode 2 knowledge. In the former, these artefacts contribute to an understanding of cultural communities where interdependent practitioners share a common set of practices, interpretation of endeavours and situational epistemic perspectives. The application of knowledge is pragmatic which emerges as truth from its commonly defined sufficiency of purpose. Moreover, Peroune (2007) has drawn attention to the levels of peer engagement, based on trust and self-disclosure. These findings indicate that the willingness of participants to share tacit knowledge is heightened when trust and willingness to self-disclose are highest. Such a conversational model compares well with the seduction of Mode 2 knowledge production (Nowotny et al. 2003) that presents us with a number of issues for the pragmatic university. The cause of concern is the production metaphor. Of course, we recognize that whatever metaphor is chosen endows the object of investigation with metaphor-dependent status. In unpacking the production metaphor, a range of notions is assumed about the kind of knowledge being produced. I may take the notion of production (*poiesis*, according to Aristotle) as aimed at making or changing something that is not an end in itself, but for the use of something else – building a

home, making a car, gaining a qualification. This production is achieved through the use of learned skills and capacities previously acquired in some form and in the continual process of improvement (*techne*). The capacity to do, that is, the skills to be able to recognize, manipulate, converse with others and understand, is a necessary condition for the notion of production of knowledge. This is itself evident in that one needs to be able to understand what to do, in addition to knowing how to do it. Any notion of value associated with the process is not found in *poiesis* but in *praxis,* which leads to practical wisdom (*phronesis*) and the practice of moral judgement. By using the production metaphor, Nowotny et al. (2001) encourage the notion of knowledge production that is scientific and objective and thus value-free in its realization and associated with a need for it to be put to work. In this sense, the knowledge created has to be put to work; it is not of the work. Knowledge viewed through the production metaphor needs to be applied for it to exist; it has no end in itself . Mode 2 knowledge seems like a conflation of knowledge production and the knowledge so produced.

If pragmatic learning is conceived as edifying conversation, not unlike Beckett and Hager (2002), I argue that judgements have to be made. Yet these judgements on the value to the individual and the group of the usefulness of the knowledge and the action to ensue are matters of practical judgement and lead to a skilled judge being considered as a wise person. This requires of the conversationalist an ability to understand other language games so as to interpret meaning from one domain to another and also to challenge interpretations of the notion of knowledge contained. As each domain is in constant flux, this ability to interpret, to give meaning to something in order that it becomes knowledge, is what we consider to be the main attribute of an ability to learn. For the student and faculty member, the ability to transcend their immediate contextual interpretation of knowledge in ways that challenge the accepted interrogation is an ability to create new knowledge, new ways of being useful within the context of action. This requires many virtues besides the Aristotelian virtues of courage (it is a risky thing to acknowledge changing ways of being), prudence and desire and requires, according to Winch (2010), self-regarding virtues such as patience, persistence, diligence, attention to detail and tenacity. Further, this ability to learn involves aretaic and personal characteristics in existing practices as putative abilities in knowledge creation.

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Part IV

Chapter 13
Foucault and Work-Based Research Ethics: Revisiting Some Issues

Michalinos Zembylas

Introduction

In previous work (Zembylas 2006), I discussed some of the problematic aspects of work-based learning and its implications for doing research in work-based programmes. In that article I argued that work-based learning could become a mechanism of self-government and discipline, but I did not pursue the implications in much detail, especially in relation to the development of a research ethic that opens up 'transgressive' practices (Biesta 2008) in work-based research. In this chapter, I wish to come back to my original discussion, utilizing an enhanced theoretical perspective and focusing specifically on how work-based learning may develop a research ethic that responds to widespread criticisms about increased surveillance and self-discipline.

The basic assumption behind doing research in work-based programmes is that it is influenced by context—the workplace or the community of practice (Siebert and Mills 2007). It is now a truism to point out that the context of work-based learning is full of complexities which raise significant challenges to traditional definitions of the researcher, the rigour of doing research and the knowledge itself. Concerns related to knowledge produced in action, the interrelation of context and knowledge, power relations, subjectivity and ethics, and research processes in the workplace are some of the resulting challenges of work-based learning as an emerging field (Lester and Costley 2010). Needless to say, these challenges also raise concerns about the sort of methodologies and ethics that are utilized to conduct research in the workplace.

In this chapter, I want to give an account for work-based research as an 'apparatus' (Simons and Masschelein 2008) that threatens to perpetuate certain forms of

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governmentalization in work-based learning, unless subversive strategies are developed in the process of doing research in this context. The term 'apparatus' refers to both the method of analysis and the structures of practices being utilized (Dreyfus and Rabinow 1982). In other words, an apparatus of work-based research consists of the activities, objects and ideas that have come together to operate as a research methodology and ethic in work-based learning. This apparatus is made possible through specific 'conditions' that are put in place within work-based programmes in higher education. It is this apparatus that this chapter aims at exploring and delineating its consequences—its openings and closures—for developing a particular research ethic in work-based learning.

In the first part of this chapter, I revisit some criticisms and critiques of work-based learning, focusing on issues of worker's subjectivity and power relations in the context of work-based learning and especially outlining their implications for work-based programmes in higher education. In the second part, I develop the idea of work-based research as an apparatus that has certain consequences—including important 'closures'—in the development of work-based research methodologies and ethics. In the third and final part of the chapter, I consider the 'openings' that may be created from engaging productively with the apparatus of work-based research. As in my previous work, this chapter is grounded in Foucauldian perspectives and the increased possibilities they instil to formulate a transgressive research ethic in the field of work-based learning.

Power and Subjectivity in Work-Based Learning: Old Criticisms, New Responses

Work-based learning is part of an ongoing evolution in higher education during the last two or three decades (Lester and Costley 2010). The growth of work-based learning programmes and scholarship in recent years may be an indication of an increasingly acceptable notion that learning is not a function purely of location in an institutional site of education (i.e. the university); that is, work-based learning is not learning in any traditional pedagogical and curricular sense (Armsby et al. 2006). Work, rather than disciplinary knowledge, becomes the curriculum shaping learning, and the goal of studies becomes the development of the skills and knowledge required for successful performance in the workplace. As Barnett (1999) and Felstead et al. (2005) point out, the recognition that learning can take place at work signals a shift from a valorization of traditional disciplinary knowledge to problem-based learning; that is, work-based knowledge becomes 'legitimate'.

At the same time, however, a number of scholars draw attention to some highly problematic issues about work-based learning (e.g. Garrick and Usher 2000; Usher and Solomon 1999; Wang 2008). Lester and Costley (2010) summarize three such issues: the first is that work-based learning does not follow established academic practice; the second refers to concerns about changes to the ways in which knowledge is produced at the workplace; and the third issue concerns confusions between work-based learning and training, particularly in relation to the lack of academic

rigour and the problematic links to commercially driven courses. In particular, scholarship grounded in postmodern and post-structural theories, critical pedagogy and feminism problematizes the interrelations between work and learning (e.g. Du Gay 1996; Fejes and Nicoll 2008; Kincheloe 1999), especially in relation to how notions of power relations, knowledge and subjectivity are (re)defined in the context of workplace learning. For example, scholars grounding their work in these theories highlight that what constitutes 'useful knowledge' or 'effective research methods' is linked to power relations among workers, managers, owners and educators at higher education level. Some of the questions which can be raised in relation to issues of power relations and subjectivity in work-based learning are the following: What is the nature of work-based knowledge and who appears to be involved in the process of negotiation and legitimation of knowledge produced in the workplace? What is visible and invisible in the process of work-based research and how power relations influence this process? How is subjectivity reconfigured in the context of work-based research and what issues of research ethics are involved?

The rapid growth of work-based learning programmes in recent years has raised concerns about the increasing potential for 'surveillance' and 'normalization' (Foucault 1977, 1980); these consequences are strongly relevant to issues of power relations and subjectivity in the context of work-based learning. That is to say, work-based learning is not necessarily seen as a form of 'empowerment' of the worker—as it may initially seem to be—but it can also become a form of 'seduction' *at work* and *by work*, a seduction through 'empowerment' (Garrick and Usher 2000; Olssen 2008). This seduction concerns issues of power and discipline in the sense both of control of bodies and of bodies of knowledge. As Edwards (2008) explains, for lifelong learning to be mobilized as meaningful, it seems that different disciplinary practices emerge and inscribe what is acceptable thus constituting what Foucault referred to as 'docile bodies'.

In particular, some theorists emphasize how post-Fordist transformations of the workplace have created a need for employees who can be self-developing, self-motivating and self-regulating (Du Gay 1996; Edwards 2008; Olssen 2008). The 'management of subjectivity', as Garrick and Usher point out, or the transformation of docile bodies into 'active subjects', as Olssen (2008) suggests, becomes now a central task for organizations; this task turns employees into subjects who actively want to be self-developed and whose personal objectives are congruent with the organization's mission. Thus, 'good' or 'successful' employees are those who continually adapt to the changing needs of their organization; thus, employees need to be sufficiently 'flexible' to regulate themselves by constantly 'improving' themselves.

Through this managerial discourse of 'excellence' and 'flexibility', technologies of work (power) and technologies of the self (subjectivity) become aligned with technologies of success (motivation and enterprise) such that the government of work passes through the government of each and every individual for self-fulfilment (Rose 1990). *Technology*, here, refers to any assemblage structured by a practical rationality governed by a more or less conscious goal (Rose 1999). The school, for instance, is a prime example of such an assemblage of knowledges, instruments,

persons, buildings and spaces through which learning is organized and structured. It is in this way that the discourse of excellence links and aligns what is organizationally desirable—more productivity, flexible working, increased efficiency and profitability—with what is personally desirable (greater self-fulfilment) (Garrick and Usher 2000; Olssen 2008). This establishes a closer link between the learning process of the individual and the goals of the organization, contributing to the management of subjectivity and the surveillance of the working subject.

Through the Foucauldian concept of *governmentality*, it is possible to describe how we learn to govern ourselves (our mentality) or how others govern us through an ensemble of institutions, procedures, tactics, calculations, knowledges and technologies, which together comprise the particular direction that government takes. For example, it is interesting to examine how governmentality is manifest at the micro-level and particularly in the ways in which 'subjects' engaged in work-based learning regulate themselves—not in a compliant sense but as active subjects, that is, subjects who have a freedom to act (Olssen 2008). As known, Foucault (1983) argues that power is only power when it is addressed to individuals who are free to act one way or another. Thus, self-regulation is not about compliance. Compliance suggests passivity, coercion and imposition. What is interesting here is how subjects engage in varied self-regulatory practices that embody multiple positions—including resistant ones. Rose (1990, 1999) explains that governmentality in the post-Fordist workplace involves a non-coercive 'pastoral' power that works through a calculated self-regulation that involves workers 'educating' themselves into accepting that greater 'flexibility' is both for their own good and their organization's benefit.

Flexibility, then, becomes the hallmark of a new governmentality that originates on the worker's self who seeks to maximize his or her capacities and construct the 'appropriate' attitudes that will increase productivity (Olssen 2008). This perspective directs our attention to the ways in which technologies of the self 'take the form of the elaboration of certain techniques for the conduct of one's relation with oneself, for example, requiring one to relate to oneself epistemologically (know yourself), despotically (master yourself), or in other ways (care for yourself)' (Rose 1999, p. 29). These strategies equip employees with a psychology aspiring to self-realization, and they are always practised under the actual or imagined authority of some psychological or disciplinary system. In this process, workers' learning experiences become 'normalized', that is, they are socialized and disciplined in such a way that is more economically productive and socially conforming; the workers are caught in a web of regulatory and normalizing power (Carlson 1997; Fejes and Nicoll 2008). Thus, 'normal' becomes the self-motivating, self-disciplined workers who constantly find new ways to construct their work skills and knowledge—skills and knowledge that are sold for personal and organizational benefit.

To summarize the analysis so far: Work-based learning can be theorized as a 'technology' through which worker-selves become 'enterprising', seeking betterment and fulfilment in the workplace in ways that are both personally and organizationally effective. Also, work-based learning becomes an indicator both of successful self-government and a culturally sanctioned way in which employees in restructured workplaces can make a 'project of themselves' and at the same time add value to the

organization. Finally, governmentality and normalization in the contemporary workplace are embodied in practices and discourses around flexibility, teamwork and self-enhancement.

Research Methodologies and Ethics in Work-Based Learning

After acknowledging various criticisms and critiques about work-based learning, this part of the chapter focuses on their implications for work-based research methodologies and ethics. On the level of research methodologies, there is concern with the epistemological and performative dimensions of conducting research, that is, how 'doing' research in the context of work-based learning is entangled with governmental rationality and entrepreneurship. This epistemo-performative dimension of research methodologies also brings an ethical dimension to the fore. 'Ethical' here refers to the consequences of conducting research in the context of work-based learning in terms of the self-government practices that formulate particular subjectivities. For the entrepreneurial self this means, for example, that the decision to conduct research is similar to an act of investment that offers an income or return (Simons and Masschelein 2008).

Given that conducting work-based research is unavoidably linked to self-government practices that formulate particular subjectivities, 'methodology' and 'ethic' are being shaped through the 'apparatus' of work-based research. Simons and Masschelein (2008) utilize the Foucauldian concept of *apparatus* ('dispositif') to denote how different components become interconnected and assembled into a kind of strategic complex. In the context of the present analysis, then, the apparatus of doing research in work-based learning is a collection of dispersed activities, objects and ideas about research that have come together to operate as strategy. A work-based learning programme does not invent this apparatus; rather, the power of doing research in the context of work-based learning is an outcome of different practices and discourses that seek to promote entrepreneurship and the governmentalization of subjectivities in the name of work-based learning. To show more specifically the consequences of this apparatus, I briefly take on three of its aspects: the development of 'research abilities', the emphasis on 'reflection' as one of the distinctive features of work-based research and the relevance of work-based research to issues of equity and social justice in the workplace.

The first aspect of the apparatus of work-based research has to do with the development of 'research abilities' to inquire the workplace. As noted earlier, by drawing on the ideas of Foucault (1983), one may argue that the development of certain research abilities in the context of the workplace is not simply an adjustment to conditions of rapid economic and social change. Rather, it is a 'technology' or an 'apparatus' of power that deploys certain kinds of workplace relationships, as well as particular epistemological, performative and ethical assumptions around the production and management of knowledge and research at the workplace: flexibility in learning, learning based on workers' needs, development of problem-based abilities, conducting research as self-government, and so on. Within and through

discourses about work-based research methodologies, the terms *research*, *learning* and *methodologies* are *re*inscribed. However, the new meanings of these terms signify a form of work-based knowledge that is now in demand and required to help organizations meet contemporary market challenges (Garrick and Usher 2000; Zembylas 2006). Thus, abilities to inquire into the workplace are also in demand and become technologies of power and technologies of the self.

The practices and discourses of work-based research draw attention to the central role of 'intellectual technology' (Rose 1990) in one's governmentality. That is to say, practices and discourses of work-based research become technologies for producing certain social realities. The demand for research abilities to study the workplace through intellectual technology can become a way of submitting to the contemporary nature of work. The emphasis on self-fulfilment is a way of maximizing one's abilities in the workplace. Thus, the naming of 'work-based knowledge' or 'work-based research' signifies a classification of the worker in the context of organizational products and processes. In these circumstances, knowledges and methodologies about/for work-based research function as tools of understanding and improving job performance and thus operate as key mechanisms for self-regulation and governmentality.

The second aspect of the apparatus of work-based research is relevant to how 'reflection' becomes a basic pedagogic tool for analyzing and 'improving' one's practice (and self). One of the by-products of the growing level of activity in work-based learning has been the increasing demand on workplaces to act as sites for inquiry and reflection. For example, journal writing can act as a tool to facilitate research on oneself and one's practice and may act as a valuable way of collecting research data over a period of time. In these instances, a common question that work-based learners need to confront is 'What is there for me and my organization?' However, Fenwick (2001) and Fendler (2003) citing Foucault (1980) alert researchers to the oppressive potential of reflection (e.g. reflexive journals) that can exist in relationships where writing is used to make the personal visible. Following Foucault, I also want to critique the disciplinary technology of the confessional that is enacted through these common reflective practices. Foucault (1980) explains that such techniques of self-disclosure have been used as a way of constituting a new self. Requiring workers to become reflexive enterprising selves ignores the different opportunities and capabilities of different individuals to flourish and acts as a form of surveillance and self-discipline. Through a somewhat confessional process, learners are required to expose their prior learning to public scrutiny, to the others' gaze.

The key point in this confessional process is matching the reflecting self with the existing expectations of self-discipline. As Fendler (2003, p. 21) argues, reflection 'can function as a disciplinary technology whose purpose may be obscure or unrecognized because ways of thinking are subject to and produced by social practices of discipline and normalization'. The problem with trying to make the invisible visible, as Fendler asserts, is that in the process of becoming visible, difference is assimilated onto familiar ground. The resulting 'ethic of enterprise' potentially subverts workers' deepest desires for self-fulfilment to the fluctuating needs of the marketplace.

Their learning is potentially governed by their own desires for success and their uncritical self-regulation, both rooted in market norms. This arguably creates the conditions for the learner's self-discipline which again links to Foucault's concept of governmentality, as noted earlier. So, paradoxically, while participants of work-based learning see themselves as transgressors of traditional learning boundaries, they are simultaneously involved in disciplining themselves. In other words, although reflection may offer opportunities for transgression, an increased emphasis on reflection is problematic because there is no satisfactory way to distinguish between practices of reflection that are transgressive and those are complicit with existing power hierarchies.

The third and final aspect of the apparatus of work-based research has to do with issues of equity and social justice. Kincheloe (1999) shows how current organizing of work and vocational education perpetuate inequities by widening the gap between workers and management. In particular, he explores how class—and colour—blindness in workplace learning has marginalized large groups of workers. This form of inequity limits our understanding of what it means to be 'skilled' and what 'useful' knowledge and 'success' are in the workplace. For example, women continue to struggle against gendered work-based knowledges as they negotiate workplace subjectivities of male-oriented values and work styles (Ahl 2008; Butler 2000; Garrick and Usher 2000); thus, issues of power inequities in workers' division of labour are often dismissed or downplayed.

Issues of equity and social justice in work-based research highlight once again that workplaces are characterized by radically diffuse and localized power relations and that the mechanisms of power are not to be found at any single, central site (Blacker 1998; Olssen 2008). Thus, universal positions of 'advantaged' or 'disadvantaged' people are challenged and offer workers, employers and educators at the higher education level a strategy of caution and modesty. Consequently, the point is not to attack an institution of power but a form of power that categorizes the worker, attaches him or her to a particular positionality and imposes a certain 'regime of truth'. The mechanisms of subjection in the context of exploitation and domination, argues Foucault (1983), are not 'terminal'—they are in complex relations with other forms. Therefore, as it is shown next, the goal is not to discover who we are but to refuse what we are, to promote new forms of subjectivity through the refusal of what has been imposed on us; this is precisely what creates the potential to establish a new research ethics in work-based research.

Subversive Strategies and Transgressive Practices in Work-Based Research

So far, this chapter has focused on the (unintended) consequences of work-based learning and the challenges arising for research methodologies and ethics in this context. As noted, appeals to excellence, flexibility and success—that are tied to rationalization and expertise of professionals and the supposedly authentic knowledge

about the self—need to be viewed with suspicion. The struggle against normalization, however, is not about 'emancipating' workers-researchers from the distortions of power or ideology, but what is needed is a critical examination of how workers-researchers have come to govern themselves and others through various research practices and discourses at the workplace. Practically, this means that workers-researchers begin to contest the forms of being invented for them and begin to invent themselves differently (Rose 1999), that is, construct new discourses and practices that destabilize the regime of self which today prevails—for example, problematize and contest the ways in which excellence, flexibility and success create regulative ideals at the workplace. This 'problematizing attitude' (Prado 1995) is particularly valuable for work-based research.

A problematizing attitude in the context of work-based research, then, would imply 'a readiness to continually problematize established truths through development of alternative accounts and critical analyses of targeted facts, concepts, principles, canons, institutions, methodological truisms, and established practices' (Prado 1995, p. 152). *Ethics* as 'the kind of relationship you ought to have with yourself' (Foucault 1984)—that is, how we constitute ourselves as moral agents—is both a strategy and a practice which enables workers to best live their lives, always within power relations, with a minimum of domination. The basic idea is to look hard at the sources of evidence and the practices we take for granted and to problematize the obvious. It is this sort of ethics, according to Foucauldian ideas, that may provide subversive strategies and transgressive practices in work-based research. In the remaining chapter, these strategies and practices and their subversive and transgressive potential are further delineated.

First of all, an important aspect of research ethic in work-based learning is that workers-researchers need to become aware of the technologies of power that govern their learning at the personal or organizational level. A critical task, therefore, is to begin locating how they develop 'work-based knowledge' and 'work-based research abilities'. The challenge of developing criticality in the workplace context is to explore how work-based discourses and practices are constructed, and then how those constitute particular subjectivities that are (self)governed. In the context of work-based programmes, for example, this means inviting workers-researchers to leave the familiar stories of learned habits, beliefs and emotions and analyze how selectivity of one's views and feelings constitutes particular subjectivities. This implies that workers-researchers engage in a critical analysis of how they have come to be regarded, and regard themselves, as '(un)successful managers', for example, and what discourses and practices are constructed around this notion. This also means that workers-researchers learn to problematize the assumptions embedded in the practice of measures for 'self-discipline' and 'self-control', and how those are used to regulate their own bodies and bodies of knowledge through particular research methodologies.

Given this analysis, the transformation of discursive practices on work-based research methodologies and ethics will not be advanced through normalizing practices and discourses but rather through individual and collective 'refusals' (Foucault 1983) of the power of such practices and discourses to normalize the

workers. Thus, the struggle to free oneself from this sort of subjection and subjectivity is what creates openings for subversion and transgression. For example, resistance to taken-for-granted assumptions about 'proper' research abilities and the value of reflection is what creates such openings. This approach carries the potential of encouraging workers-researchers to think and 'author' themselves differently, to ask not only how work-based research discourses and practices, the various norms in their workplace and power relationships, have shielded them from their desires but also how all these have installed those desires and habits as what they presume themselves to be. What is challenging is to reformulate the widespread notion that self-disclosure constitutes a knowing of one's self. No amount of intellectual self-reflection is enough to initiate dramatic transformations; self-formation is constituted through the power and the resistances that the self practises through performances that create greater freedom.

The formation of new subjectivities in work-based research is admittedly constrained by a number of barriers. Perhaps the most challenging barrier occurs when efforts for change remain entrenched in identity politics. Understanding the various practices operating within workplace cultures and the subject-making processes that help to produce worker subjectivities within particular settings (e.g. workers-researchers becoming aware of their own subjectivities) offers a starting point for considering other barriers to, and the possibilities of, exercising resistance. The suggestion for an overthrow of identity politics does not imply to ignore the ways in which identities attach to workers (regardless of how workers might choose to see themselves) but rather to acknowledge how a radical re-making of subjectivity needs to be formed in and against the historical hegemony that wants workers to have a certain, pre-defined identity. The latter points to the possibility of opening up the meanings attached to worker subjectivities and renders them contingent and mobile—without losing sight of the ways in which identity categories continue to shape and organize workplace experiences.

An approach recognizing that discourses and practices are not absolutely determining begins to provide workers-researchers spaces to re-constitute themselves and their relations with others through redefining the ethics of work-based research. Action research, for example, includes the creation of spaces that nurture and advance new research practices through action for change. Foucault's ideas contribute to locating strategies and practices that can potentially move workers-researchers away from being normalized, bringing into focus possibilities for a continuous subversion, resistance and transgression.

Conclusion

In this chapter, I have sought to problematize the methodologies and ethics of work-based research. I have used Foucault's views on power relations, ethics and subjectivity to interrogate the normalizing consequences of conducting research in the context of work-based learning. As noted, discourses and practices

of work-based research have significantly contributed to bringing together the personal and the organizational in such a way that individual employees associate their own learning with the goals of the organization. This self-disciplining foregrounds the 'unspoken' dimension of work-based learning, a hidden curriculum where what is learnt is a set of skills, values and attitudes which stress continual self-transformation as something 'normal'.

Foucauldian views are helpful in highlighting the processes of self-shaping and management which are integral to the negotiation of work-based research methodologies and ethics. These views provide some useful ways of theorizing workplace learning and research that recognize the productive potential of problematization while at the same time enabling an ethical practice of the worker's subjectivity. Therefore, an important point made in this chapter is that Foucauldian views help the constitution of spaces that contest normalizing practices and discourses about work-based research methodologies and ethics. These spaces encourage workers, employers and educators to constantly question what they do in their everyday lives.

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Chapter 14
Communitarian Ethics and Work-Based Education: Some African Perspectives

Thaddeus Metz

Introduction

In this chapter, I address work-based education (WBE) from a *moral* perspective, which differs in major respects from most of the other philosophical literature on it. First, I am not primarily interested in *epistemology*. I do not analyse different basic types of knowledge, say, with an eye to indicating ways in which WBE would be a particularly efficient means of learning about an academic field or acquiring certain know-how. Second, I am also not concerned with *phenomenology*. I set aside the rich body of literature, inspired particularly by the thought of Martin Heidegger, that reflects upon what it is like to be a learner in a WBE context or what a workplace environment can inform us about the basic facets of the experience of one who works with others or works with tools. Third, I do not address WBE in relation to issues of *well-being*, namely, the ways in which WBE would benefit or satisfy the interests of either employees or employers. I do not investigate the odds of a WBE learner acquiring a job, becoming more confident or contributing to her firm's productivity, relative to those of a more traditional student.

Instead, I seek to answer questions that have been much less often posed, ethical ones such as these: Is there reason to believe that WBE would tend to make better people (as opposed to make people better off)? That is, can we reasonably expect characteristic WBE learners to exhibit good character to a greater degree relative to non-WBE ones? On a social level, would systematic use of WBE noticeably promote justice, say, by effecting the right sort of reparation to those who have suffered from colonialism or exploitation?

Engaging in moral enquiry is best undertaken not in an implicit and piecemeal fashion but rather when one's assumptions are out in the open and presented in a

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systematic, coherent manner. To put my ethical cards on the table and to arrange them in an orderly way, in this chapter, I explore WBE in light of a theory that, roughly, at bottom instructs agents to prize communal relationships. As I indicate below, this moral theory is to be identified in the first instance with precolonial thought and practice below the Sahara desert. I draw on an Afro-communitarian ethic mainly because I believe that it is a philosophically promising and underappreciated alternative to the Kantian and utilitarian perspectives that dominate Western moral-philosophical research. However, beyond addressing myself to scholars in the 'Global North' interested in the moral dimensions of WBE, I also think of my audience as those living in sub-Saharan and other underdeveloped parts of the 'Global South'. The sort of ethic I articulate should jibe particularly well with world views many of them already hold, and the issues I address, relating to individual character and social justice, should also be of special interest to them, given their theoretical and practical contexts.

I begin by presenting an overview of traditional black African societies, noting that WBE has been the dominant mode of learning in them ('Work-Based Education in Traditional African Culture' section). Then, to begin to show that WBE has relevance for contemporary societies, I articulate a communitarian moral theory grounded in mores that have been salient among sub-Saharan peoples, differentiating it from the Western theories more familiar to international readers and motivating them to take it seriously as relevant to moral enquiry in today's world ('An African Moral Theory' section). Then, I apply this Afro-communitarianism to WBE, enquiring into its prospects for fostering individual character ('Work-Based Education and Character' section) and social justice, particularly in the Global South ('Work-Based Education and Justice' section). I conclude by posing some questions suitable for future research, supposing that my analysis has been basically sound or at least promising ('Conclusion' section).

Work-Based Education in Traditional African Culture

Black peoples below the Sahara, considered apart from the influences of colonialism, are well known for tending to share certain ways of life.[1] They characteristically: are small scale in number so that everyone knows everyone else, with nothing approximating the size and anonymity of a metropolis; have oral cultures, lacking a corpus of written works; maintain that ritual, initiation and tradition have some moral importance of a sort unrecognized in modern societies; hold land in common, parcelling it out to households based on need and clan membership, in contrast to permitting profit-maximizing private ownership; lack sophisticated science and technology, with the economy based largely on agriculture, cattle or hunting/gathering; maintain that there are weighty duties to aid that far transcend the nuclear family, centred on what Westerners would call 'extended family' such as uncles,

[1] Here I draw on summaries of anthropological and sociological findings presented in Metz (2007, 2012a).

cousins and many other members of a lineage; believe in a duty to wed and to procreate, viewing solitariness as problematic; have faith in the continued existence of and interaction with ancestors, people who were not merely forebears of a given people but ones who both lived to a ripe old age and exhibited moral wisdom (the 'living-dead'); expect respect for, and even deference to, elders, as opposed to prize youth; resolve conflicts affecting society by consensus, at least among some popularly appointed elders, rather than rest content with either majority rule or the non-consultative will of a monarch; and respond to infraction not with retributive punishment, but with an eye toward reconciliation between the offender, his family, the immediate victim and the broader community.

These are typical, and not necessarily universal, facets of traditional sub-Saharan societies, setting aside the imposition or importation of cultures from Europe, India and the like. An additional trait that could be added to the list above is, in fact, the predominance of work-based education as the mode of instruction. Two influential proponents of African traditional education sum it up as having 'emphasized learning by doing, respect for elders, lifelong education, training on the job, learning to live and living to learn' (Adeyemi and Adeyinka 2003: 436).

More specifically, in many sub-Saharan communities,[2] education was not undertaken in a formally organized or institutional setting. It was rare for learning (a) to take place in a dedicated school building and (b) to be run by professional teachers in light of (c) a preset, vetted curriculum that (d) focused on written texts and (e) sought to impart 'theoretical' or 'cosmopolitan' knowledge, with students (f) oriented toward obtaining a degree or certificate so as to compete on a labour market. In contrast, education was by and large utilitarian and parochial (e*), focusing on teaching students how to master skills that would enable them to take up roles that would reproduce their agrarian communities, both economically and culturally (f*). The young tended to learn such skills either by imitating their parents or elders, or by becoming apprentices to those particularly skilled in a given area who would orally transmit the know-how on the job (a*, b*, d*). What students were taught varied, depending on their gender and talents, and was not subject to review by some group of parents or officials (c*).

One might suggest that, given the low division of labour, lack of scientific enquiry and absence of globalization in the precolonial era, WBE was apt, but that it is of dubious relevance to the urban centres of the twenty-first century. In fact, I believe that, setting aside the evidence that WBE is an efficient way to learn, there are *moral* reasons, especially for underdeveloped societies such as those in the sub-Saharan region, to use it more frequently than they have.

A resolutely *ethical* analysis of WBE is unusual to find in the literature. As John Garrick points out in his essay, 'The Dominant Discourses of Learning at Work', the major approaches taken to WBE 'are all sub-discourses of contemporary market economics' (1999: 217).[3] Garrick notes that WBE is most often viewed as a way to

[2] For mention of exceptions, in which there were more formal or quasi-formal teaching methods, see Adeyinka and Ndwapi (2002: 19) and Adeyemi and Adeyinka (2003: 434–435).

[3] Cf. 'The Grounds for Work-Based Learning' in Raelin (2008: 9–30)

invest profitably in human capital, to foster personal empowerment, to develop job-related expertise and the like, all of which are respects in which WBE would *benefit* the individual learner or the organization at which she learns. Such analyses are *amoral* (not necessarily immoral) in the sense that they do not expressly and systematically invoke moral language and concepts. Of course, one could argue that workers and firms seeking to maximize their respective self-interest in labour and consumer markets, perhaps via WBE, is a just way to organize economic production and distribution. However, my point is that it is rare to find WBE expressly and rigorously analysed in light of justice and other moral categories such as good character and right action.[4] That is something I aim to help rectify in this chapter.

To evaluate WBE in light of moral considerations, I draw on a particular ethical framework inspired by the communal way of life of traditional African societies. In the following sections, I spell out a communitarian moral theory grounded in several norms salient in sub-Saharan cultures, argue that it should be taken seriously as an ethical guide to contemporary life regardless of one's location on the globe and then show that it entails that considerations of virtue and justice counsel work-based education in modern, industrialized societies.

An African Moral Theory

I evaluate WBE in light of an African moral theory not merely because I address myself to educationists in the sub-Saharan region, those who would be most expected to find this philosophical perspective attractive. My audience is also squarely those in the Global North, who may be unfamiliar with African worldviews. Upon having become acquainted with sub-Saharan moral thought some years ago, I have come to believe that it points toward a principled articulation of right action that adds a perspective that at least should supplement the Western ethical theorization that dominates the international literature and, at most, should supplant it.

A moral theory is a comprehensive, basic principle that purports to indicate what all wrong actions have in common in contrast to right ones and that can be used to resolve potentially any interpersonal, social problem. The most influential Western moral theories are the principle of respect, that an act is wrong insofar as it degrades a person's autonomy, and the principle of utility, that an act is wrong insofar as it fails to improve people's quality of life.

Now, a moral theory counts as 'African' insofar as it is informed by beliefs and practices salient among traditional black peoples below the Sahara desert. Hence, to label a moral theory, or anything, 'African' implies neither that it is exclusive to that region, not to be found anywhere else, nor that it is exhaustive of that region, to be found among every member of it. Instead, to call something 'African' or 'sub-Saharan',

[4] One will, of course, find *some* moral discussion of WBE in the literature, but it is invariably brief and piecemeal, as opposed to thorough and theoretical. Representative are Boud and Garrick (1999: 5–6), Matthews and Candy (1999: 60–61), Cunningham et al. (2004: 272).

at least in the present context, connotes merely the idea that there are certain features in that locale that are recurrent and noticeable in a way they tend not to be elsewhere on the globe.

The African moral theory that I have articulated and defended is this: An act is wrong insofar as it fails to respect communal relationships, those in which we identify with and exhibit solidarity toward others. Note that this principle is not intended to be a description, that is, an accurate reflection, of any precolonial people's way of life but is rather a normative-philosophical construction, grounded in traditional sub-Saharan cultures, that is meant to provide guidance for how people ought to live regardless of their society. This principle, I have argued elsewhere, does a good job of making sense of the characteristic nature of sub-Saharan societies, which I adumbrated in the previous section; it can be viewed as a rational reconstruction of the values that would make sense of several facets of the culture commonly encountered below the Sahara (Metz 2007). However, this principle *also* excels at unifying and grounding most readers' scattered, unreflective judgments about morality, regardless of their cultural background, something that I have been working systematically to prove elsewhere (Metz 2009, 2010a, b, 2012b), but that I here defend merely as *prima facie* plausible.

My favoured African moral theory instructs agents to prize community, where this is not just any actual social grouping but rather is an ideal form of it composed of two logically distinct relationships: 'identity' and 'solidarity'.[5] To identify with each other is, in part, for people to treat themselves as members of the same group, that is, to share a sense of togetherness principally by conceiving of themselves as a 'we' and taking pride and shame in the group's behaviour. Identifying with others also includes engaging in joint projects, coordinating behaviour to realize common ends. Identity is a matter of people sharing a way of life, with the opposite of it being instantiated by people defining themselves in opposition to one another and seeking to undermine one another's ends.

To exhibit solidarity with one another is for people to care about each other's quality of life in two senses. First, it means that they engage in mutual aid, acting in ways that are expected to benefit one another. Second, caring is a matter of people's attitudes such as emotions and motives being positively oriented toward others, say, by sympathizing with them and helping them for their sake. For people to fail to exhibit solidarity could be for them to be indifferent to each other's flourishing or to exhibit ill will in the form of hostility and cruelty.

Identity and solidarity are different sorts of relationship. One could identify with others but not exhibit solidarity with them—probably workers in relation to management in a capitalist firm. One could also exhibit solidarity with others but not identify with them, for example, by making anonymous donations to a charity. My proposal, following the intimations of several African thinkers, is that a promising normative conception of community includes both kinds of relationship. Consider the following senses of 'community' one finds suggested by sub-Saharan theorists:

[5] The next few paragraphs borrow from Metz (2012a).

'Every member is expected to consider him/herself an integral part of the whole and to play an appropriate role towards achieving the good of all' (Gbadegesin 1991: 65); 'Harmony is achieved through close and sympathetic social relations within the group' (Mokgoro 1998: 3); 'The fundamental meaning of community is the sharing of an overall way of life, inspired by the notion of the common good' (Gyekye 2004: 16); and '(T)he purpose of our life is community-service and community-belongingness' (Iroegbu 2005: 442).

The combination of identity, or sharing a way of life, and solidarity, or caring for others' quality of life, is equivalent to what English speakers mean by a broad sense of 'friendship' or 'love'. A friendly or loving relationship more or less is one in which the parties think of themselves as a 'we', engage in common activities, act to benefit one another and do so for the other's sake and consequent to sympathy. Hence, one way of putting the Afro-communitarian moral theory I am articulating is to say that we are obligated to prize friendship or love, or that an act is wrong insofar as it fails to do so, and especially insofar as it prizes unfriendly relationships, those based on hatred. As Desmond Tutu, winner of the Nobel Peace Prize and renowned chair of South Africa's Truth and Reconciliation Commission sums up morality from a typical African perspective: 'Harmony, friendliness, community are great goods. Social harmony is for us the *summum bonum*-the greatest good. Anything that subverts or undermines this sought-after good is to be avoided like the plague' (1999: 35).

To illustrate and motivate the principle, I now apply it to several instances of intuitively wrong behaviour. It is normally immoral to deceive, coerce, assault, steal, exploit and break promises. What do these and other relatively uncontroversially wrong actions have in common? The present theory entails this (rough) answer: They are *unfriendly*. They are antisocial or express hatred in the following senses: The agent is distancing himself from the person acted upon, instead of enjoying a sense of togetherness; the agent is subordinating the other, as opposed to coordinating behaviour with her; the agent is doing what is likely to harm the other for the sake of himself or someone else rather than acting for the sake of her good; and the agent is being malevolent, in contrast to exhibiting positive attitudes toward the other's good.

Deeming acts to be wrong basically insofar as they esteem unfriendliness differs in interesting ways from a Kantian account, according to which wrong acts are those degrading of an individual's autonomy, and from a utilitarian view, according to which wrong acts are those not improving people's quality of life relative to other available actions. Proponents of these Western theories would say that friends ought to treat each other morally, namely, according to one of these theories, whereas I, defending an Afro-communitarian perspective, suggest the reverse: In order to treat each other morally, we must prize friendly relationships.

Friendly relationships, of the relevant sort, include Kantian and utilitarian elements; being a genuine friend means coordinating one's behaviour with others rather than subordinating them, and striving to improve their quality of life rather than harming them. However, the Afro-communitarian moral theory expresses much more than a combination of these ideas familiar in Western normative

thought. First, being a genuine friend means not merely making other people better off, as per utilitarianism, but also making them better people, namely, helping them to improve their character by themselves becoming better friends. Second, being a genuine friend means helping people for their own sake and because one sympathizes with them, whereas a utilitarian would object to such other-regarding attitudes if having a more selfish disposition had the indirect effect of making others marginally better off (à la Adam Smith's invisible hand). Third, being a genuine friend means more than not oppressing others, which could in principle be done by remaining isolated from them; it also means participating with them, engaging in common activities, which the Kantian does not require as a way to respect autonomy. Fourth, being a genuine friend means sharing a sense of self with others, that is, thinking of oneself as a 'we' and taking pride and shame in the group's behaviour, neither of which a Kantian (or a utilitarian) deems morally important at bottom.

Focus, now, on an educational context in order to see how the African moral theory works. Consider, first, why it is wrong for students to plagiarize. Presumably, it is good for students to acquire an education, and a school would be much more likely to impart an education to them with a policy of disallowing students to take credit for writing produced by others. Hence, considerations of mutual aid counsel a school to adopt a rule forbidding plagiarism. A student who broke this rule would hardly be fostering a sense of togetherness with other students and his instructors but rather would be thinking of himself as an 'I' in opposition to others. He would also be deceiving others and taking advantage of their conformity to the rule, which, by the above, would be unfriendly. In addition, he would be harming, rather than helping, other students by taking up instructors' time that could have been spent more productively, and he would not be evincing positive attitudes toward other students' good but rather ones of indifference, at best.

Relatedly, think about why the African moral theory would entail that it is permissible for a school to punish a plagiarizer, at least an unrepentant one, an issue distinct from the claim that it is impermissible to plagiarize. It might appear that because any punishment is unfriendly, all punishment is unjustified by the present principle. However, the principle instructs us to *prize* or respect friendly relationships, and doing so can sometimes permit behaviour that is in itself unfriendly, when done to counteract unfriendliness. If someone has not been unfriendly but is the victim of an unfriendly action, then valuing friendliness permits treating the unfriendly agent in an unfriendly manner, if essential to stop that behaviour or prevent its harmful effects. In short, punishment is justified as a means to repairing broken relationships, when those responsible for breaking them are not mending them and the penalties are placed on them. With regard to a student who has plagiarized, then, a penalty would be permissible insofar as it would be necessary to stop the student from deceiving and taking advantage of others, to prompt her to make things right with those she has wronged and to direct her toward interacting with others on a friendlier basis.

My aim has not been to convince readers of the truth of the Afro-communitarian moral theory I have spelled out but rather to demonstrate that it is a promising way

to make sense of the rights and duties we intuitively have. Thinking of immoral actions roughly in terms of what esteems unfriendly relationships is not often discussed in the international literature, but it grows out of values shared widely among nearly a billion people below the Sahara desert and is, I submit, a perspective that is worth applying to contemporary controversies in education.

Work-Based Education and Character

Whereas much of the literature on WBE discusses respects in which it efficiently imparts *skills* to workers, in this section, I focus on *virtues* that WBE can be expected to foster in them, relative to a normal classroom setting. In light of the African moral theory from the previous section, a virtuous person is one who esteems communal relationships. One phrase that is characteristically used to summarize sub-Saharan ethics is, 'A person is a person through other persons', a (literal) translation of a maxim instructing one to become a *real* person, or to live a *genuinely* human way of life, by prizing community with other persons (e.g. Wiredu 2004: 20). I argue that one's odds of exhibiting good character, so construed in communal terms, would be better if one participated in WBE than if one merely attended school.

I begin to spell out the way that WBE is likely to make us better people, namely, ones who prize communal or friendly relationships, by recalling that WBE characteristically takes place in a 'community of practice' (Lave and Wenger 1991; Raelin 1997: 569–571; Wenger 1998; Matthews and Candy 1999: 53–56; Keller 2006: 207–208; Nielsen and Kvale 2006: 123–126). This phrase, which is ubiquitous in the WBE literature,[6] connotes the idea that a worker learns much of what she does (roughly) by informally collaborating with others to realize shared goals. More specifically, it is often pointed out that, in contrast to school, in the workplace an individual must fit into an organized scheme, doing what she can to become part of a system oriented toward producing some object or service. She tends to succeed insofar as she helps the group to do so, unlike the more solitary endeavour that is characteristic of the classroom. In addition, whereas in school, from the perspective of a student, communication tends to be unidirectional and dyadic, that is, coming 'downward' from a single source, namely, the teacher, in a community of practice at work communication tends to be more self-inaugurated, back and forth and among a variety of co-workers.[7]

Up to now, friends of WBE have invoked the idea of a community of practice in order to explain salient respects in which people's education can improve and thereby benefit either themselves or those who employ them. For example, Etienne

[6] For an earlier, related notion of 'shared cognition', see Marsick and Watkins (1990: 208).

[7] Nielsen and Kvale (2006: 123–125) highlight the respects in which the WBE learning context is often that of teamwork and network. For much more detailed and careful analyses of the concept of a community of practice, see Wenger (1998, 2006).

Wenger, one of the scholars who coined the phrase 'communities of practice', argues that they are likely to enhance a firm's profitability by helping it to solve problems quickly, to transfer best practices, to develop professional skills and the like (Wenger and Snyder 2000). Other theorists highlight respects in which employees are likely to benefit from communities of practice, say, by developing their autonomy (Beckett and Hager 2002: esp. 27–28, 86–87) or learning in a way they prefer (Nielsen and Kvale 2006). Now, I appeal to the notion of community of practice for a different reason, namely, to suggest that it should be seen as something not merely desirable as a means to the *well-being* of an employee or employer but also as contributing to people *becoming virtuous.*

Given two ways to acquire useful knowledge, either in a community of practice or outside one, *ceteris paribus* one ought to do so in such a community since by doing so one would be more likely also to develop moral excellence. Consider four different reasons for thinking so, in light of the Afro-communitarian ethic sketched above. First, recall that community, from a sub-Saharan perspective, includes the idea of people psychologically identifying with one another, by thinking of themselves as a 'we' and taking pride or shame in what the 'we' does. Such an inclusive notion of oneself as being part of a group is more likely to be realized in a workplace community of practice than in a classroom. To be sure, students do have some tendency to think of themselves as a 'we', in light of their common status and interests. However, such an orientation is likely to be much stronger in a WBE context, in which people are dependent on one another to achieve shared aims and routinely communicate with each other about how to achieve them.

A second facet of the African notion of community, recall, is identifying with others practically, by participating in joint activities. Here, again, the community of practice facet of WBE instantiates such behaviour much more than the typical classroom. Of course, teachers can and do assign group activities at school, but they are not the norm. In contrast, a community of practice *just is* a relationship in which people undertake a common project, coordinating their behaviour through communication to realize common ends. By definition, then, insofar as WBE includes a community of practice, it includes part of what an Afro-communitarian ethic prizes.

A third facet of community, of the sort that one ought to esteem to become a real person in African ethics, is mutual aid, a relationship in which one helps others, ideally repeatedly over time. Again, such a relationship is more likely to be encountered on a day-to-day basis in a workplace than in a formal teaching space. Yes, students sometimes help one another outside of class, and an excellent teacher will solicit input from a given student in a way that is likely to benefit many others in the classroom. However, I submit that co-workers, colleagues and team members probably *reciprocate* much more than do students, at least when comparing time spent at work and at school.

Fourth, and finally, note that communal relationships of the sort that in an African framework confer virtue on a person include certain positive attitudes toward others' good. A real person is one who is motivated altruistically and who helps others upon sympathizing with them, not primarily because, say, she expects to be rewarded in the long run for having helped others in the short term. Even if an instructor in a

traditional classroom drew out a student in a way that would help other students, it would not follow that the student's contribution would express the right sort of attitudes. She might well answer a teacher's question merely so as to receive a higher mark for herself or to avoid being shamed or penalized in some way. In contrast, those who are part of a community of practice on the job would be more likely to exhibit the relevant emotions and motivations toward their co-workers. To be sure, individuals want to advance at a firm, in terms of pay, status and working conditions. However, when set in a community of practice, self-regarding attitudes are very likely to be tempered by other-regarding ones that would naturally arise when working with others. In particular, upon the other three aspects of community being realized, namely, a sense of togetherness, joint projects and mutual aid, it would be unusual for individuals not to help one another for the each other's sake and on the basis of fellow feelings.

In sum, by the Afro-communitarian moral theory I have articulated in the previous section, a person is virtuous, or becomes a 'real' person in the vernacular, insofar as she prizes communal relationships of identity and solidarity. I have argued that both the psychological and behavioural facets of identity and solidarity would be much more likely to be realized in a community of practice at the workplace than in a traditional school environment and have invoked the widespread observation in the literature that WBE characteristically includes a community of practice. This argumentation implies neither that workplace learning would invariably be sufficient to maximize virtue nor that learning at school would invariably be sufficient not to realize it as much as possible. After all, some workplaces radically isolate workers from one another, and one can imagine a substantially revised type of school environment, indeed one in which communities of practice were made central. Instead, my argument in this section has been that, given *characteristic forms* of school-based and work-based learning, the latter is much more likely to promote virtue, conceived in Afro-communal terms, than the former. Put roughly, one is likely to be friendlier while on the job than in the classroom.

Work-Based Education and Justice

By 'justice' I do not mean merely those policies that may be rightly enforced by the state, which many contemporary political philosophers would take the term essentially to connote. I have in mind such policies but also additional social relationships that might not admit, for moral or practical reasons, of being backed up with state coercion. Intuitively, non-political organizations, such as businesses and NGOs, can contribute to social justice, and if this is true, then it is also true that groups that are not formally organized and, indeed, even individuals acting alone can in principle advance just relationships, namely, ones in which people are treated fairly and given their due.

When social justice is construed in this broad way, then one can reasonably expect WBE to advance it, at least under certain conditions that are widespread in

developing societies. There are two kinds of justice, each of which WBE would plausibly promote, namely, ideal justice, on the one hand, and non-ideal justice, on the other. The latter sort of justice concerns the way that agents should respond to infractions of the former sort. Non-ideal justice, at least in the West, is largely understood to be a matter of criminal justice, the punishment of offenders for wrongdoing, and of compensatory justice, restitution to those who have been wrongfully harmed. Stealing an item would violate principles of ideal justice, whereas failing to punish the thief and to help see the stolen item returned (when an impartial third party could do so at little cost to other ends) would violate principles of non-ideal justice. In this section, I use the most space to argue that WBE could help promote non-ideal justice, particularly conceived in light of an African morality.

Traditional sub-Saharan societies are well known for responding to wrongdoing with forms of what Westerners tend to call 'restorative justice'. In response to many crimes, many such communities would 'look forward', doing what would be likely to repair broken relationships between the offender, the victim, their respective families and the broader community. Such mending of frayed ties would often involve elders encouraging wrongdoers to apologize directly to those they have harmed and to offer some kind of compensation for the harm done, as well as prompting victims to forgive them. As Ali Mazrui, the famous pan-African social theorist, remarks, 'What is distinctive about Africans is their short memory of hate'.[8]

Thinking of non-ideal justice basically in terms of what is likely to heal rifts between people differs radically from purely 'backward-looking' approaches typical in the West. For example, it differs from a retributive stance according to which a person should be punished in proportion to, and simply because of, the crime he committed. Sometimes traditional African societies have imposed punishment and even quite severe penalties such as death or banishment. However, the typical rationale for doing so is to protect the community from the wrath of angry ancestors, namely, to make things right with them (or to prevent disruption to communal ties threatened by incorrigible witches).

In addition, using compensation as a way to express remorse and to do what can be expected to foster reconciliation differs from a more Western, strictly historical approach to it, by which the one liable for wrongful harm should pay back those he has injured precisely to the degree that would make up for their loss. Achieving the aim of overcoming unfriendly dispositions does not require that, at a level of principle, the benefits conferred on victims precisely make up for burdens they wrongly suffered.

The restorative approach to non-ideal justice that is characteristic of many traditional black peoples naturally grows out of a value system that prizes community; it was such a value system, and not Christianity, that was largely responsible for South Africa's establishment of the Truth and Reconciliation Commission in response to apartheid-era crimes.[9] Appealing, now, to the Afro-communitarian moral theory above, one's basic obligation is to esteem relationships of identity

[8] Said during an interview and quoted in Nussbaum (2003: 5).

[9] Tutu (1999), Louw (2006), Krog (2008).

and solidarity, which is naturally understood to entail two principles in the context of non-ideal justice (both of which are mentioned in the case of punishing plagiarism above). First, response to infraction ought to promote the ends of ending antisocial behaviour and of fostering community between the offenders and his victims, both direct and indirect, and second, any burdens, compensatory or punitive, should be imposed only as necessary to achieve those ends and only on those who have been antisocial.[10]

What does this restorative conception of non-ideal justice have to do with WBE? My suggestion is that those who have been responsible for, or benefited from, historical injustice could use WBE as a particularly effective way to repair broken relationships between themselves and those wronged. To make things concrete, consider how WBE would be apt for contemporary South African society. Recall that under apartheid, a white minority controlled political power and used it to segregate people, such that people of different races were legally forbidden from: having sexual and romantic relationships with one another, living in the same territory, attending the same schools or using the same beaches or restrooms. Blacks were not merely separated from whites, but whites also forcibly took the lion's share of the country's wealth. They removed black people from desirable land, to the point where white people, no more than 13 % of the population, controlled about 87 % of the territory, particularly that with arable farmland on top and minerals underground. Whites also monopolized access to well-resourced hospitals, schools, transportation, policing and other public services, and generally relegated black people to physical labour, such as mining or harvesting for men and domestic labour for women.

In the early 1990s, the laws enforcing such segregation and oppression were dismantled, but the effects of them remain in the twenty-first century. Land redistribution has proceeded slowly, and the small amount of reallocation that has taken place has failed, in the sense that a very large majority of new black owners have not been able to make productive use of the land (and in many cases have sold it back to the white families who previously lived on it). In addition, largely because of inferior education, black people tend to lack the skills needed to obtain work in a modern economy. This is true not only for older black people who lived under apartheid but also those in their teens and 20s, who have suffered from poorly trained teachers at the primary and secondary levels of education. The official unemployment rate stands at 25 %, but that of course excludes those who have stopped looking for work and includes many jobs that pay extremely poorly. About half of South Africa's 50 million people, nearly all of them black, continue to live below the poverty line of a dollar or two a day, while a large majority of the white population is employed and reasonably well paid for the skills they have been able to acquire.

South Africa might be unique in the extreme degree to which it has been warped by historical injustice. However, it is also representative of several dozen other societies. Nearly all other countries below the Sahara suffered from centuries of British

[10] For more precise renditions of these principles, see Metz (2010b: 91–95).

and Continental colonialism and exploitation. A majority of countries in South America were initially colonized, primarily by those from the Iberian Peninsula, and then for about a century ruled in quasi-feudal manner by small numbers of local families owning large amounts of land, with the large majority of the population being peasants. In the United States, Native Americans were subjected to genocide and forced removal, and Africans and their offspring suffered from racial slavery. In all these societies, opportunities for indigenous people and people of colour are often less than what they would have been in the absence of historical injustice. Concretely, most of them suffer from being unable to acquire the skills needed to compete on the labour market that is part of a global capitalist economy.

WBE would be one way for the well off in such societies to help effect restorative justice, to do something to overcome the stark racial and class divisions that linger from colonialism, exploitation, slavery and the like. Returning to South Africa to illustrate, think about white families and conglomerates that still own substantial amounts of farmland. They could begin by formally apologizing for retaining control over land that was wrongfully taken from blacks. And then they could individually, or ideally collectively, decide to impart skills to blacks and to transfer a certain percentage of fertile land and other requisite means to those with the demonstrable ability to make use of it.

As indicated above, merely returning land to black people has failed to improve their conditions, as they have by and large lacked the skills and capital needed to make the land productive. Furthermore, the South African government, like most governments in the southern hemisphere, is not in a position to provide the training and resources needed for people to become able farmers. However, many white people still running farms are in such a position. If they were to adopt WBE, making apprentices of blacks interested in becoming farmers, and, upon the acquisition of knowledge and skills on the job, transferring land and other means to them, then not only would blacks genuinely benefit from this kind of compensation but it would also be most likely to help bring people together. Blacks would be more likely to let go of resentment and to forgive upon being aided in this way, and both communities would share a greater sense of togetherness. Note that current agricultural associations would be sufficient to coordinate such a redress programme; neither state implementation nor even supervision would be necessary.

Moving from farms to firms, similar projects could be undertaken by companies in urban centres. Here, too, those excluded from participation in the economy by virtue of lacking access to quality education could in many cases best obtain it from business owners. I have noted the poor instruction that most pupils receive from teachers in grade school and high school. In addition, it is of course a commonplace among friends of WBE to note that a standard university education does not prepare one adequately for a job, and I here also point out that very few people in developing societies even register for a higher degree, let alone obtain it. However, profitable businesses able to compete on the world market are in a position to train prospective employees. They could provide paid internships to unemployed people, particularly from disadvantaged backgrounds, that would attempt to groom them into proper candidates for a permanent job. Ideally this would be done in combination

with some kind of more formal education, leading to a certificate or diploma. NGOs and other non-profit institutions could adopt similar projects.[11]

Just as merely giving blacks land would not be the right sort of compensation in a rural context, so merely giving them money would not be the right kind in an urban one. In order for restorative justice to be obtained, those who have benefited significantly from past injustice must acknowledge that fact and go out of their way to provide victims with a *sustainable* benefit, such as the skills needed to hold a job. Widespread adoption of WBE would not fully make up for all the losses resulting from apartheid, but it could go a long way toward healing racial conflict and alienation, namely, obtaining the aim of reconciliation. Similar remarks apply to societies with similar contexts.

WBE could also be useful with regard to fulfilling ideal justice, for example, economic justice. If one believes that the wealth of one's parents should not determine one's chance of getting a job and instead believes that those born into a lower economic class should be given the education needed to compete effectively for a job, then one might reasonably think that an internship-plus-diploma scheme would help those who cannot attend university. In addition, if one thinks that distributive justice requires providing education not merely to the young but to those of just about any age, then a similar kind of scheme could be apt as a way to underwrite 'lifelong learning' (Oduaran 2002).

In this section, I have argued that there is good reason to think that WBE could advance social justice, particularly of the non-ideal sort, if implemented systematically in societies that have suffered from colonialism, slavery and similar atrocities. In these societies, there are large pools of unskilled and consequently unemployed and impoverished people, whose governments are usually not in a great position to help them. A number of those who have benefited from historical injustice could adopt WBE, in the form of internships and apprenticeships, as a way to express remorse for having so benefited and to compensate victims by imparting the sustainable benefits of skills.

Conclusion

I have sought to evaluate work-based education (WBE) from a moral perspective, and, in particular, one informed by communitarian values prevalent in sub-Saharan Africa. I first pointed out that WBE was the predominant form of learning in precolonial, small-scale black societies and then argued that an underappreciated moral theory grounded on salient facets of African culture entails that there are

[11] My own university has adopted this kind of scheme. Its New Generation Scholars Programme targets principally black South Africans by paying their tuition, giving them a generous stipend, providing the kind of attention and support needed for them to succeed at obtaining their PhDs and moreover ensuring them a job at the university upon suitable completion of the doctorate.

reasons for contemporary societies to use it. For one, WBE could, better than merely returning once-stolen objects such as land and money, help to foster restorative justice or reconciliation in societies that, as a result of systematic historical dispossession, have large numbers of unskilled people. For another, WBE could, better than a traditional classroom setting, help to promote virtue in individual learners, where this is conceived as a matter of identifying with others and engaging in solidarity with them.

Beyond these ethically relevant potential *outcomes* of WBE, it would be worth exploring, in another context, the *process* of WBE, enquiring into which forms it should take in order to satisfy ethical criteria. Beyond the obvious considerations of complying with contracts and being respectful toward colleagues, what moral requirements are there on WBE participants? In particular, what would the Afro-communitarian perspective articulated in this chapter entail for the way that learners, mentors and other participants in WBE ought to conduct themselves? The project of evaluating WBE from a moral perspective has only just begun.

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Chapter 15
Islamic Perspectives on Work-Based Learning

Mesut Akdere and Jackleen M. Salem

Introduction

Islam is the third and last of the monotheistic religions (after Judaism and Christianity) in the world. The holy book of Islam is the Qur'an, which contains the words of Allah (God) sent to the Prophet Mohammed (peace be upon him—PBUH), considered the last prophet in a line of prophets from Moses to Jesus. People practicing this religion are called Muslims and follow the orders of Allah and the teachings and examples of the Prophet Mohammed (PBHU). The core of the Muslim faith is the notion that there is no God but Allah and Mohammad (PBUH) is his messenger. One of the best ways to describe Prophet Muhammad (PBUH) is to look at his life and actions in their entirety:

> The Prophet (PBUH) is similarly unparalleled in the way in which he was the foremost in practicing all the forms of worship found in his religion, and the first in piety and the fear of God; in his observing the duties of worship fully and with attention to their profoundest dimensions, even while engaged in constant struggle and activity; in his practice of worship combining in perfect fashion the beginning and end of worship and servitude to God without imitation of anyone. (Nursi 1998, p. 202)

Thus, he (PBUH) is considered as the most excellent example of all Muslims of his time as well as of all other Muslims that are to come after him.

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Muslims believe that they are sent to this world to serve God. "Because Islam means surrender or submission to the will of God, Muslims have tended to place primary emphasis on obeying or following God's will as set forth in Islamic law" (Esposito 1988, p. 68). Furthermore, Muslims consider Islam as the universal religion sent to all people on earth; this is evident by fast-growing numbers of Muslim converts around the world. Although there are similarities between Islam and Judaism and Christianity, Muslims view the latter faiths as partially changed, altered, or corrupted by people over time. Furthermore, Muslims believe that Islam is the continuation and the final version of God's revelations to people, in which previous revelations were sent through different messengers of God, including Abraham, Moses, and Jesus (peace be upon them).

The Muslim faith can be approached within the framework of five pillars of Islam and the Islamic law (Shari'a). The five pillars of Islam include Shahada—creed to the oneness of Allah and believing in his last messenger Mohammed, performing daily Salat (five daily prayers), fasting during the month of Ramadan (entire month), giving Zakat (almsgiving), and pilgrimage to Mecca once in a lifetime if one can afford it and is in good health. Shari'a, on the other hand, is "the path not only leading to Allah, the Most High, but the path believed by all Muslims to be the path shown by Allah, the Creator himself through His Messenger, Prophet Muhammad (PBUH)" (Doi 1997, p. 2). Muslims believe that Shari'a is a comprehensive way of life, dictated through God's words in the Qur'an and through God's messenger Muhammad (PBUH). Thus, Shari'a is the Islamic law regulating all parts of Muslim life from education to welfare, banking, and all other aspects of life. Muslims have two denominations: Sunni (majority of Muslims in the world are Sunni Muslims) and Shia (a smaller denomination of this faith). According to Muslim jurists, the goal of Shari'a is to promote happiness by mandating best efforts in the protection and preservation of five basic values: (i) life, (ii) intellect, (iii) religion, (iv) property, and (v) dignity. Furthermore, Shari'a is not just a penal code which is one aspect of the Shari'a with unimaginably high burden of proof standards. However, Shari'a encompasses a Muslim's life from brushing teeth and showering to dispute resolution and rules of individual and societal conduct. In the current social and political backdrop of the Western world where "Shari'a" is a buzz word inciting fear, animosity, and misunderstanding, comprehending the role of Shari'a in a Muslim's life and its impact on a Muslim's desire to engage in work-based learning is essential for the global and dynamic world of business.

Although Islam was born in Mecca in 610, the largest Muslim country today is Indonesia, which is the home of over 200 million Muslims (Indonesia 2011). Islam is the second largest religion as well as the fast-growing faith in the world (Zein 2007). Consequently, Muslims live all over the world, particularly in the West (both in Europe and the Northern America). Considering the rising climate of Islamophobia—the prejudice, hatred, or irrational fear of Islam or Muslims—as well as the continued inaccurate portrayal of Islam by the Western media through associating this religion of peace with terrorism or extremism, it has become even more crucial and important to understand the foundations and core of Islam. Many

Muslims live in the West and participate in all aspects of life including work, education, and politics.

Al-Faruqi (1986) argued over three decades ago that "mutual dependence for economic and political survival has led to a renewed search for commonalities among nations" (p. 78). Considering the societal, commercial, financial, and technological advances of our century, such interdependence has grown even deeper and stronger. There are a large number of developing countries in the world (except for a few that are part of the G-20 such as Turkey, Indonesia, and Saudi Arabia) in which the majority of their populations are Muslim. This fact does certainly point out the growing need for education in the Muslim world. But for a religion that begins with the command of "Read," why is it the case that Muslim populations around the world are falling behind the rest of the world (for the most part) and remain illiterate, uneducated or minimally educated, and underdeveloped? How does illiteracy affect the workplace, production, innovation, research and development of human resources, and work-based learning in the Muslim countries? What are the forces that contributed to this current state in the Muslim world? How does Islam view learning in general and work-based learning in particular? This chapter critically addresses these questions to by providing a review of literature on *learning* from the Islamic viewpoint and then discussing the implications of this Islamic viewpoint on work-based learning in today's contemporary organizations. Furthermore, implications of this perspective to performance paradigm within the organization will also be discussed in the context of a globally competitive and technologically advanced world of business.

Learning in Islam

It is a generally accepted fact among the people who follow and study Islam that acquiring knowledge and engaging in continuous learning are in the core of Islam. Learning is often considered within the context of seeking knowledge and acting upon that knowledge. From a Western philosophy, knowledge can be described as "achievement requiring a mind slow rather than quick to believe—which waits for, expects, and weighs evidence before agreeing" (Paul 1993, p. 380). Contrary to what the Western philosophers and scientists generally believe, "knowledge received through hearing and seeing depends on the human 'heart'" (Shafi 2004, p. 542). Thus, there is a fundamental difference between the Western and the Islamic notion of learning. Both the Qur'an and Prophet Muhammad emphasize and highlight the importance of seeking knowledge and acting upon what one learns. Verses from the Qur'an and hadiths of the prophet (PBUH) demonstrate that this, in fact, is a lifelong mandate for all Muslims. Lifelong learning is not only crucial in helping individuals to help themselves through getting educated but, more importantly, to help them to better understand God's message and commands through enhancing one's understanding of the world by engaging in continuing education. One of the most significant

evidence for this mandate is that the first revelations of God to the Prophet Muhammad (PBUH) were about reading and learning:

> Read: in the name of thy Lord who created man from a clot. Read: and thy Lord is the most bounteous, who taught by the pen, taught man that which he knew not. (Holy Qur'an, 96: 1–5)

However, this is not necessarily the only verse from the Holy Qur'an that commands Muslims to learn to gain knowledge and enhance their lives (from worshiping God to conducting everyday business) based on that knowledge. Consequently, in another verse, Allah reminds Muslims:

> And Allah has brought you out from the wombs of your mothers while you know nothing. And He gave you hearing, sight, and hearts that you might give thanks (to Allah). (Holy Qur'an, 16: 78)

Muslims believe that without proper knowledge humanity is at lost. Hathout (1995) points out the four cardinal features that are unique to human species. These are knowledge, an awareness of good and evil, freedom of choice, and accountability. Seeking knowledge is an innate human characteristic. It is this aspect of humans upon which Islam focuses and through which the remaining three features can be best utilized and actualized. Knowledge is also seen as a precondition to understanding and comprehending Allah. But not all knowledge should also be sought. Islam distinguishes knowledge as both beneficial and harmful in content. Therefore, Muslims are obligated to discern between the beneficial knowledge and harmful knowledge. A Muslim learner is then to refrain from any knowledge that would lead them to transgress God's commands. On the other hand, this charges the Muslim scholar or scientist with the duty to study all aspects of knowledge (from Islamic sciences to hard sciences and social sciences). It is through the Islamic lenses that these Muslim scholars and scientists continue to study sciences to be able to identify beneficial knowledge that will bring the Muslim believers closer to God. Ghazzali, one of the prominent scholars of Islam, argued that "effort to acquire knowledge is the worship of mind" (Karim 1996, p. 55). In fact, Muslims are encouraged to pray Allah to increase them in knowledge: And say: 'My Lord! Increase me in knowledge (Holy Qur'an, 20: 114).

The Prophet Muhammad (PBUH) also emphasized the importance of gaining knowledge, engaging in learning, and gaining education to all Muslims throughout their lives through his hadiths (sayings) and his Sunnah (actions). The prophet (PBUH) said, "Seeking knowledge is obligatory upon every Muslim" (Ibn Majah: 1/224). Thus, lifelong education is an obligation for every Muslim as they need to seek knowledge for as long as they live. He (PBUH) further emphasized the fact that those who seek knowledge in order to improve and enhance themselves and the societies they live will be rewarded by God: "Whoever follows a path in the pursuit of knowledge, Allah (SWT) will make a path to Paradise easy for him" (al-Bukhaari, Kitaab al-'Ilm, 10). One may acquire knowledge through memorizing, studying, reading, making notes, comprehending, contemplating, and other actions that basically facilitate and foster learning (Al-Hanbali 2001). Additionally,

Islam views an individual who has knowledge superior to a person who merely worships. Hazrat Anas (may Allah be pleased with him) relates that the holy prophet (PBUH) said, "A person who goes (out of his house) in search of knowledge, he is on Allah's way and he remains so till he returns" (Riyadh-Us-Saleheen, Book of Knowledge: 1385). The role of learning in Islam is further emphasized in the following narrated hadith of the Prophet Mohammed as described by Ghazzali:

> The Holy Prophet was once asked: O Prophet of God, which action is best? He said: Knowledge. He was then questioned: Which knowledge do you mean? He said: With your knowledge of God a few actions will suffice and your ignorance about God will not suffice even though actions are numerous. He said: On the Day of Resurrection, God will raise up the worshippers and the learned men. He will say: O the congregation of the learned men I have not imbued you with my knowledge about you, I have not placed knowledge in you in order to punish you. Go, I have forgiven you. (Karim 1996, p. 17)

Furthermore, the prophet (PBUH) said, There is no envy except for two persons: one whom God has given knowledge according to which he conducts himself and teaches it to the people and one whom God has given wealth and power to spend it and he spends it in good deeds (al-Bukhaari, Kitaab al-'Ilm, 490). As evident both from the Qur'an and the hadiths (sayings) of the Prophet Muhammad (PBUH), Islam places great emphasis on learning as the core component of education. Islam identifies three basic sciences to be learned and acted upon regardless of the individual's situation, circumstance, or background. These are the science of faith (iman)—how to safeguard one's beliefs of Islam; the science of purification, prayer (salat)—how to purify the heart; and the science of fasting (Swam)—how to purify the body. These sciences serve as the foundation and framework of learning for Muslims. Muslim scholars also emphasize this in their work. Upon gaining knowledge in these three basic areas of science, Muslims can seek knowledge in other areas of sciences as these three fields of study would serve as the foundation for learning of all types of knowledge beneficial in advancing and transforming humanity. To help guide Muslim learners, Muslim scholars identified steps for studying these sciences. For example, Ibn al-Qayyim Al-Jawziyyah suggests that there are six stages for acquiring knowledge. These are "(1) asking questions in a good manner; (2) remaining quiet and listening attentively; (3) understanding well; (4) memorizing; (5) teaching; and (6) acting upon the knowledge and keeping to its limits" (p. 283). When asking question, the person should be free of any attitudes and should ask the question for the sake of inquiry and learning not any other inappropriate intention. It is certainly permission to engage in debate or discussion as long as it is conducted with respect to each other's opinion. In the case of remaining quiet and listening attentively, the idea here is to avoid any distraction which may be due to speaking or creating any kind of noise. It reminds learners that they are not alone and the learning needs of other people should also be respected. The third step of "understanding well" ensures that learners gain a substantial grasp of the content because without understanding learning cannot occur. The fourth step, "memorizing," has its roots from Islamic education because Muslims are encouraged to memorize the Qur'an as much as they can. "The most influential

factors in strengthening memory are industriousness and commitment" (Al-Zarnuji 2001, p. 41). Furthermore, in recent years, more and more educators in the West are referring the role of memorization and utility of it in helping learners acquire knowledge (Ding 2007; Bavis et al. 2000; Cook and Smith 2006). The fifth step is teaching what one learns. This is not to mean that one should preach what they learn but to help others learn; one should teach what they know to help others acquire knowledge and to help knowledge reach others. Finally, the sixth step requires the Muslim learners to act upon the knowledge acquired and keep that knowledge to its limits. Since there is no point in simply acquiring knowledge and not using it in a beneficial way, Islam urges Muslims to act upon any beneficial knowledge that they acquire, "for God, glorified and exalted is He, to whom all praise belongs, created for each science people who learn and practice it, for each path people travel it, and for each station and state people who dwell in them, so that each has what suits him and nothing else" (Al-Badawi 2001, p. 36). Finally, Muslims view knowledge as a necessary prerequisite for achieving justice and peace in the world.

Work-Based Learning

We live in an age of technology, which makes it possible for us to seek knowledge and access information without leaving the comfort of our homes or even our office or workplace. Technology is becoming more integrated in our lives and providing us with many nontraditional ways of acquiring knowledge, engaging in learning through easy access and immediate availability of information. "The rapid and extensive diffusion of information-based technologies to manufacturing and service sectors, urban and rural places, and traditional and high-tech industries is transforming the marketplace and workplace" (Rosenfeld 2000, p. 3). Such a dramatic change in our organizations unavoidably affected our jobs, professions, and ultimately our careers. Learning one's job and becoming proficient in one's profession imply a whole new set of assumptions when compared to less than half a century ago. The knowledge gained through vocational training or academic education can become old, irrelevant, or even absolute in a matter of years. "The current pace of change means that everyone must continue to develop in order simply to stay in the same place and even more so to 'keep ahead of the game'" (Clifford and Thorpe 2007, p. 2). This mandates the individual employee as well as his/her organization to rethink and reconsider the ways they approach to work-based learning. Work-based learning, thus, becomes a catalyst for organizational development, improvement, enhancement, and advancement.

In this chapter, work-based learning is viewed within the training framework. Davis and Davis (1998) explain as follows:

> Training is the process through which skills are developed, information is provided, and attributes are nurtured, in order to help individuals who work in organizations to become more effective and efficient in their work. Training helps the organization to fulfill its purposes and goals, while contributing to the overall development of workers. Training is necessary to help workers qualify for a job, do a job, or advance, but it is also essential for

> enhancing and transforming the job, so that the job actually adds value to the enterprise. Training facilitates learning, but learning is not only a form of activity designed and encouraged by specially prepared trainers to generate specific performance improvements. Learning is also a more universal activity, designed to increase capability and capacity and is facilitated formally and informally by many types of people at different levels of the organization. Training should always hold forth the promise of maximizing learning. (p. 44)

In this context, training is viewed as a learning process to help individual engage in various activities to help them develop, increase, and enhance new skills and expertise through continuous learning as related to their jobs within the organization. Thus, training is the tool enabling an individual increase their human capital—"the productive capabilities of human beings that are acquired at some cost and that command a price in the labor market because they are useful in producing goods and services" (Parnes 1986, p. 1). Although such an alien notion of human capital may be conceived as highly pragmatic and utilitarian within the Islamic context of work-based learning, we argue that neither philosophically nor spiritually does this conflict or clash with the teachings of Islam. Islam teaches and emphasizes "work" as one of the fundamental principles of life and not working is condoned for anyone. "Just as the Islamic sciences have originated from Divine Unity and aim to return man to it, the natural sciences have tried to discover the interrelation of all created being and the unity which underlies the world of multiplicity" (Nasr 1981, p. 124). This attitude towards work is inherent in the pillars of Islam when one is always reminded about the daily prayers and not being lazy in performing them.

The concept of work-based learning was first introduced to the Arabian Peninsula with the arrival of Islam through the notion of adult education, which "was imparted to the masses, not so much in order to teach them the art of reading and writing as with the purpose of giving instruction in the Qur'an and in the Faith" (Rahman 1979, p. 182). This basic level of adult education then took the form of apprenticeship in the Muslim workplace. "Apprenticeship has been a basic and persistence influence on the development of workplace and is probably the most non-school institution around which training has grown" (Swanson and Holton 2009, p. 37). In the case of Muslim apprenticeship, the child (mostly boys) from an early age would be given up to his master (the business owner) who would not only teach him the profession but also all the etiquette and mannerisms expected by the society from the people practicing this particular profession. The child would often stay at a place given by the master and would spend minimum amount of time on socialization and unproductive activities. This was regarded crucial in getting the apprentice (Mubtada) to develop a knowledge base, skill set, and the experience needed to perform his profession. Although the apprenticeship system has evolved into an internship system today, it is still an important aspect of human resource development.

Islam also emphasizes communal learning because all knowledge we acquire and all our actions which are the results of such knowledge should benefit the society either directly or indirectly. In this regard, Muslims "of knowledge must be sympathetic and helpful rather than jealous, for envy is injurious and devoid of benefit" (Al-Zarnuji 2001, p. 41). This also encourages some form of informal and

incidental learning where individuals are encouraged to share their knowledge. In his typology and classification of the Islamic sciences, Ramadan identifies Shari'a as the sources of Islamic sciences (1999). Shari'a is composed of the sciences of the Qur'an and the sciences of the hadith. Ramadan argues that Shari'a leads to the four different areas of knowledge including science of 'aqida (the creed—oneness of God); Usul al-fiqh (principles of jurisprudence—foundations of Islamic law); science of akhlaq (morals, ethics—studying individual behavior in every aspect of life); and Tasawwuf (Sufism—study of the inward journeying towards God). All of these areas of science lead to the study of Fiqh (jurisprudence—the study of Islamic law and jurisprudence presented in two fields of study. The first one is 'ibadat which includes rites/modes of worship—the study of rules related to ritual purification, prayer, almsgiving, and pilgrimage). The second one is Mu'amalat which is any other than formal worship—the study of rules in respect to all aspects of life such as social affairs, legislation, commerce, and learning. The Mu'amalat branch of Shari'a governs all aspects of work-based learning. Furthermore, Islam takes the period and context into account when studying knowledge. This is done through Fiqh al-waqi (events and cases) and Fiqh al-awlawiyyat (priorities), which refers to "the study of the determination of priorities in the application of the Islamic laws and regulations in the light of period and context" (p. 40), and Fiqh al-da'wa (communicating Islam to others), which is the "study of the methods of explaining and transmitting the Message of Islam according to the period and context" (p. 40). Furthermore, Rahman (1979) argues that "whereas, 'ilm is both a process of learning and refers to an objective, organized and disciplined body of data, fiqh, at this stage, is not the name of a particular discipline or objective system, but only the name of a process or activity of understanding and deducing" (Rahman 1979, p. 101). Consequently, Islam purports, supports, and fosters the notion of work-based learning (as included in the study of rules in respect to all aspects of life).

Work-based learning in Islam can be approach within the context of spirituality and learning. Tisdell (2003) defines spirituality as a "personal belief and experience of a divine spirit or higher purpose, about how we construct meaning, and what we individually and communally experience and attend to and honor as the sacred in our lives" (p. 29). Consequently, in the Islamic worldview of work-based learning, "it is necessary to fully immerse oneself in the study of knowledge at all times" (Al-Zarnuji 2001, p. 39). It should further be noted that Muslims, by definition of their belief systems, are spiritual followers. Hence, such an attitude is to be carried over to the realm of work by Muslims in that Muslims take this so seriously as one of the mandates of their religion. In regard to training, for example, Muslim employees should be very motivated, energetic, and concentrated on learning to help enhance and improve their job and their individual performance. In fact, they are "mandated to work in a way as if it is their own work and that if they do not perform the work honestly and to the best of their ability, they will be held accountable in the Day of Judgment" (Rehman 1995, p. 165). This Qur'anic perspective enforces a level of constant consciousness of God and his presence in the minds of Muslim employees where they are aware that God is watching them at all times and they are not allowed to do anything harmful, unbeneficial, or

inefficient such as not engaging in learning, not transferring what they learn to their work, or wasting their time at work.

Al-Badawi (2001) notes that people should be careful in choosing what is important to learn by determining what is of importance and beneficial to learn personally, and then if qualified, they should help others to learn to benefit them as well. This approach to learning first of all brings an important step to individual's intentions to learn. That is, one needs to be able to discern what is important and not important to learn. Furthermore, it suggests a pragmatic approach to learning, which can help the individual identify the needs and target and choose the path to best and most effectively achieve it. In the context of work-based learning, this would put the responsibility on the trainer to carefully design, develop, and execute a training program in which the training goals are clearly outlined and effectively communicated to the trainees. This will allow the learners "to know the truth not by reorienting it but by reorienting himself so that he can become worthy of being its recipient" (Nasr 1981, p. 156). This distinction is important for work-based learning within the context of training and development.

When it comes to learning, Islam prohibits any barrier and obstacle for learning on the basis of gender, age, or ethnicity as a prerequisite for learning. "The Qur'an provides for the participation of women in the state, society, and all social and political activities, except for few exceptions related to their gender particularity" (Badawi 1995, p. 68). So, work-based learning should be accessible to all members of the organization. This addresses one of the questions raised at the beginning of this chapter: why Muslims, in general, fall behind the rest of the world in terms of education? We argue that this is due to the ignorance and immense influence of local cultures in which education is either deemed with low respect or women are being prevented from basic education because they are culturally viewed as secondary. This is an important conflict with Islam's approach to gender equity in education in which both men and women are equal and have the same rights when it comes to seeking knowledge and continuous learning.

Conclusion

Work-based learning is part of the Islamic perspective mandating and encouraging all Muslims to learn. Qur'an makes it clear that humans have only been given a little knowledge urging for continuous need to explore, learn, and discover. In the Holy Qur'an, God says "…Nor have human being been given of knowledge more than very little" (17:85). This is also evident in the historical development of humanity: as we seek knowledge, we learn more, which presents us with the sea of infinite knowledge to dive in. Furthermore, "… the Qur'an also assumes that a shared discourse of meaning and mutual care is not only possible but also necessary for the development of moral individualities and communities" (Barlas 2002, p. 21). Knowledge and learning in the workplace should result in morally apt and ethically conscious employees and organizations.

Employees who view work-based learning as "a virtue and a prelude to every praiseworthy action" (Al-Zarnuji 2001, p. 64) will further help organizations to engage in organizational learning "when members of the organization act as learning agents of the organization, responding to changes in the internal and external environments of the organization by detecting and correcting errors in organizational theory-in-use, and embedding the results of their enquiry in private images and shared maps of organization" (Argyris and Schon 1978, p. 16) and ultimately become a learning organization in which "people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to act together" (Senge 1990, p. 3). Merriam et al. (2007) argue that organizations supporting organizational learning and fostering a learning organization environment have the ability to improve "their capacity to respond quickly and in novel ways, thus increasing its ability to foster innovation and change" (p. 45). Islamic perspectives on work-based learning will certainly support and contribute to such organizational efforts, particularly when "work serves as a way of worshipping God as long as it is lawful and involves halal (permissible) acts" (Akdere et al. 2006, p. 358). Thus, any work-based learning activity will be regarded as an act of worship by the Muslim believer.

In this chapter, we have attempted to explore the Islamic perspectives on work-based learning. Understanding how Muslims view work-based learning and taking these perspectives into account while designing any work-based learning activities will help the organizations with Muslim employees better develop and utilize their Muslim workforce. Furthermore, for organizations in the Muslim world, revisiting and reconsidering these perspectives will undoubtedly lead to the revival of Muslims and the organizations they are working in their approach and attitude towards learning in general and work-based learning in particular. Having Muslim employees with such work ethics will certainly result in increased employee performance and enhance organizational outcomes which will help organizations achieve work environments "where employees are focused, passionate, and want to be there and who are innovative, productive, and do the right things the right ways" (Macey et al. 2009, p. 1). The ultimate outcome of this would be more education and enlightenment in the Muslim world.

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