

Life, Work and Learning

Practice in postmodernity

David Beckett and Paul Hager



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Education has largely ignored the significance of informal workplace learning as a source of knowledge. Close attention to ‘know how’, to the practical judgements made and re-made at work, is required to rectify this oversight.

In both paid and unpaid work contexts, adults learn powerfully from their experiences. In this book, the authors argue that this should be the basis for a new perception of what is truly educative about life. Drawing on the works of Aristotle, Wittgenstein and Russell, along with contemporary conceptual work, they use both philosophical argument and empirical example to establish their view.

Their approach confronts the traditional view of education, which throughout Western history has been shaped by formal study in schools and universities. Calling themselves ‘strategic postmodernists’, they argue that the modernist view has largely been superseded; they delineate clearly which insights from both modernism and postmodernism they adopt in their approach. Discussing the decentring of traditional education in favour of experiential, informal and reflective epistemologies, they cover issues such as education versus training; professional practice in adult and vocational education; and experience, self direction and reflection.

This work will be of essential interest to philosophers of education and educational theorists worldwide. It will also interest teachers, trainers, facilitators, and all those with an interest in adult and vocational education.

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**This book is dedicated with affection
to our parents:**

Vera and Ralph Beckett

Laurie and Charles Hager

For the future, then, the key notion in any new theory of knowledge needs to be practice. In place of the foundationalist theories that held centre stage from Descartes to Russell, we shall do better to develop a new praxiology ... that asks what procedures are efficacious in any given rational enterprise, on what conditions, and for what practical purposes. Such a theory of knowledge (incidentally) has an additional merit: its practitioners are not ashamed of getting their hands dirty. Instead they are ready to work with, and alongside, the professionals whose enterprises they study: practical or theoretical, scientific or diagnostic, legal or technical.

(Toulmin 1999 p. 62)

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Part I

**Describing the richness
of practice**

1 Introduction

Life in the swamp

1.1 The messiness of work practice

In 1987, Donald Schön began his influential book, *Educating the Reflective Practitioner*, with the metaphor of the swamp and the high ground:

On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confusing problems defy technical solution. The irony of this situation is that the problems of the high ground tend to be relatively unimportant to individuals or society at large, however great their technical interest may be, while in the swamp lie the problems of greatest human concern. The practitioner must choose.

(1987 p. 3)

We, like Schön, have written a book about life in the swamp, and we want to show those who practise any kind of work (paid or unpaid) that the ‘messy, confusing problems’ which are part of daily work life lead to powerful learning and indeed are potentially educative.

Schön shows this too, but restricts his analysis to professionals’ practice. Our swampy lowland is more extensive. We are concerned with paid work and unpaid work of all kinds.

In the context of paid work, we are concerned with:

- service occupations such as retailing
- manufacturing occupations such as trades
- management including supervision, and
- professional and para-professional occupations.

In the context of unpaid work, we are concerned with:

- domestic responsibilities in and around the home
- institutional involvement which is voluntary such as museum guiding, and
- hobbies and similar interests, such as growing roses, and

- non-institutionalised voluntary work, such as being secretary of the local rose-growing society.

We are fascinated by the opportunities across all these kinds of work for new learning. Moreover, we want to show how the messy, swamp-like conditions of daily work life provide good prospects of education in the very activities of work itself. In brief, from the diversity of ways adults are now trying to advance their workplace learning, we believe we can identify some understandings which move this workplace learning to workplace education, amidst the work activities themselves.

Consider the traditional lowly status of learning for, and at, work. As opposed to what Schön calls the ‘high ground’ of ‘research-based theory and technique’, work was normally prepared for by assimilating portions of abstract theory followed or accompanied by portions of contrived technique, as ‘practice’. Apprenticeships and tertiary professional courses had this much in common.

In addition to this front-end model, learning at work was normally informal and incidental, and hence largely ignored. While workers learned by doing and thinking intertwined, theorists were slow to acknowledge that this was going on. If specific learning was required at work, withdrawal to a classroom-based setting took place, with some hopes that ‘transfer’ of this learning then occurred back at the work-site. Again, industrial settings and professionals have this in common: ‘training’ and ‘instruction’ for the former, ‘in-service education’ and ‘professional development’ for the latter.

1.2 Contexts of change

These models originated in the economic and social context of the nineteenth century, when the Western world was shaped by industrialisation, colonialism, and the spread of formal democracy. Mass formal learning was made available through government-provided elementary schooling, normally free, compulsory and secular. Several other educational institutions arose during that time, amongst them the technical, or working men’s colleges, colleges of art and domestic economy for girls and women, and church and dame schools. Mass schooling in particular, however, arose as much to provide a labour market for the new factories as much as it was intended to advance formal democracy. At the same time, universities maintained their historically-hallowed elitism.

But in both the nineteenth-century school and the university was an assumption that work was what followed from formal learning experiences. Now, one century later, the Western world has moved beyond the factory and beyond manufacturing as the basis for economic wealth, and trading barriers, both political and economic, have been demolished. Formal democracy has been supplemented, arguably since the 1970s at least, by less formal, more participatory involvement, and this can be linked to technology of many kinds, especially in the hands of the mass media, in reshaping our daily lives at breathtaking speed. Whatever we may think about the desirability of these changes, they are

upon us; furthermore, they are being assimilated across the globe. We no longer live just in a global village: we live in a global marketplace within that village.

Education policy directions in Western capitalist democracies, in trying to come to terms with the different dynamics between learning, work and the economy have centred on skills, outcomes and experiences, rather than the traditional categories of character, processes and initiation. The formation of worthy moral character in students has always been part of a traditional role of a school, and normally this has been pursued through initiation into the classics in particular (hence the ‘grammar’ school) and more generally through discipline-based curricula. Attention to inherited knowledge (tested through memorisation and role-modelling) shaped young lives as much as do traditional schools’ civic and communitarian ideals. These categories may very well still be relevant and desirable. Nowadays, however, policy is directed away from the provision of mass comprehensive schooling towards life beyond initial learning and the connection between adult life and adult work, affecting not only compulsory schooling but also undergraduate tertiary education.

1.3 Know how and lifelong learning

This re-direction of policy shows up in buzz-words and phrases like ‘lifelong learning’, ‘multiskilling’ and the need to ‘work smarter’. Underpinning each of these current life imperatives and ones like them is the increasing need for people to develop better levels of know how. This points to the central focus of this book, which is the know how that people develop throughout their lives as a result of their work experiences in both paid and unpaid employment. In each of these kinds of experiences, that together make up a significant part of their lives, people typically develop *know how*, which we define as *a type of knowing what to do in practice that is evident in their various intentional actions*. We are interested in what criteria need to be met for particular aspects of this know how to be recognised as educationally valuable. By extension, we are also interested in the factors and conditions whose presence will serve to make the development of educationally valuable know how more likely. This will lead us to examine judgement (or decision making) as a catalyst for know how.

Work and its demands upon adults in the workplace have been the focus of policies across the Western world since the start of the Industrial Revolution. Because of new demands, governments have developed policies which support skill-based outcomes which are labour-marketable, rather than time-based initiation into processes which are character forming.

Adult capability for learning explicitly from and amongst the experiences of the workplace has emerged over the last ten years as a prominent site of national and international policy and practice, often dressed up as ‘lifelong learning’. Lifelong learning as national policy, at least in Western democracies, assumes that it is up to each adult to identify and pursue opportunities for his or her own employability, and that this may include formal studies (the old recurrent or continuing education ethos), and also informal experiences.

UNESCO, at its Second International Congress on Technical and Vocational Education, in Seoul in April 1999, had as its theme, *Lifelong Learning and Training: A Bridge to the Future*. Crossing that bridge to the future, as claimed in the report of a recent UNESCO conference (1999), will mean:

lifelong learning opportunities. Some proposals to facilitate this approach include designing courses in modular format, introducing competency-based assessment, using self-paced learning to meet individual requirements, and giving recognition to the experience, knowledge and skills already possessed.

(paragraph 14)

The future of lifelong learning is thus, at least in policy terms, bound up with what it is to be a whole person, because ‘experience, knowledge and skills already possessed’ range over all of a person’s life, not just that part of it in paid employment. Yet people bring to work their entire experiential selves, and it would be odd to shape workplace learning only around the formal, or propositional, knowledge that the workplace required. Indeed it is the ‘knowing that x’ (cf. Ryle 1949) which has traditionally characterised an epistemology for work. Once the initial formal studies have been completed, it was thought that life at work was the successive refinement of this propositional knowledge by the amorphous and ephemeral alchemy of ‘experience’. Peters, for example (1967) wants an ‘educated man’ to emerge from schooling with the right character for training and vocational experiences which will enable ‘conversations’ aimed at the formation of the whole person.

Nowadays, we give greater and long overdue attention to ‘knowing how x’. Recognition of know how gives adults’ workplace experiences an explicitness which educators are finding productive of learning. The main difficulty, however, resides in the articulation of know how. Is there a requirement that know how be storable – or merely that it is observed? Giddens (1979 p. 57) identifies ‘discursive consciousness’ (the ‘giving of accounts’) in contrast to ‘practical consciousness’, which is ‘tacit knowledge that is skilfully applied in the enactment of courses of conduct, but which the actor is not able to formulate discursively’. Tacit knowledge, or practical knowledge, is certainly a difficulty for any analysis of workplace learning. Saunders (1995), drawing on Giddens, wants to make it accessible, so he can interrogate the extent to which it contrasts with, rather than maps onto, formal higher education settings. Yet in the context of North American corporate investment in training, Raelin (1998), in calling for a new epistemology of practice, wants to meld explicit and tacit knowledge, drawing upon Schön, amongst others.

To make this tension clearer, we can consider these examples:

- education vs. training
- attitude vs. skill
- character vs. competence

- process vs. outcome
- content vs. process
- work vs. labour
- profession vs. professional
- performance vs. practice
- thinking vs. doing
- mental vs. manual.

In each of these pairs, the first-named is the traditional, high-status concept, and the second term is the interloper: the brash new low-status concept. Globalisation, however, requires the interloper. Not only that, but globalisation requires an accommodation between the interloper and the traditional concept. The site for this accommodation is the workplace, and the imperative for this accommodation is the dynamic of globalised and policy-driven change. But how are we to understand this change-driven context? One prominent way to come to terms with life, work and learning in these fast-moving times is to acknowledge that we live in and under conditions of postmodernity. While we do not regard ourselves as card-carrying postmodernists, there are many insights into the nature of practice crystallised by thinking across both modernist and postmodernist perspectives. To use Lemert's (1997) term, we are 'strategic postmodernists' in that we want to retain the strengths of modernist analysis, and yet recognise the significance of the way postmodernity holds modernism up to the light. We see a continuum of orientations to educative endeavours, with modernity and postmodernity adjacent nodes on that continuum.

1.4 Practice and this book

As already specified, our focus is broader than just paid work. Nevertheless, the workplace is an important site in which this know how that we are studying is displayed. This is evident from the recent wide interest in workplace learning and the conditions that promote it. We will be critically examining this literature that relates to workplace learning and will be arguing that it is deficient in explaining the development of know how in the paid workplace. There is even less literature on the development of know how in experiences across the lifespan for adults. This book aims to provide an account of the development of know how which is applicable to all of the diversity of learning experiences in which this happens.

Our strategic postmodernism provides a broad but plausible and widely applicable approach for something which currently lacks a conceptualisation. We are outlining a new synthesis from ideas that are currently scattered in an unsystematic way in diverse literatures. For a start, our conceptualisation, as presented, applied and developed in this book, pulls together various disparate currents in the educational literature. It will draw on ideas from education in general (which usually means 'schooling'), adult education, vocational education and training, liberal education, and, more broadly, lifelong education and lifelong learning. As

well, our approach draws on other diverse sources, including management development, organisational learning, cognition, social theory, and change theory. Thus our strategic postmodernism is eclectic: it synthesises literatures that are seen by some as in conflict in respect of both premisses and conclusions. One of our themes will be the overcoming of such apparent inconsistencies.

In some ways, the theories contained in the literatures that we draw on are too broad. It seems at first sight that the phenomena that we are interested in are far too complex for any adequate conceptualisation. This is suggested by the enormous range of relevant variables and factors postulated in the literature that we discuss. In other ways, however, the theories contained in the literatures that we draw on are too narrow. We will argue that none of them addresses very well what it is that people are actually doing when they engage in the kind of know how that is our focus. We propose in this book to fill this gap in the existing literature.

As has been indicated above, the conceptualisation that we develop will be applied and developed as this book unfolds. The idea here is to ensure that the theorisation of know how, or practice, is well understood from the start as one that is itself securely grounded in practice. To achieve this, Part I of the book will concentrate on practice with only as much discussion of the theory as the situation demands. In Part II, the overall conceptualisation will be spelt out and justified in the kind of detail that our claim for its broad applicability requires, and which its publication in a series of books on international philosophy of education demands.

In Part I, the conceptual approach emerges with the assistance of some carefully selected and detailed case studies and examples. These have been chosen primarily to represent the wide range of peoples' experiences of work and community that our approach seeks to encompass. In each of these kinds of experiences there are examples of learning that, we argue, are clearly 'educational' in a strong sense of that term, and they are also illustrative of types of practice in which know how is facilitated. Part I, then, sets out such practice. Part II provides the conceptual tools to elaborate and enrich such practice. Readers with a main interest in practice itself and its improvement could start with Part I. Readers with a main interest in conceptual depth and debate could start with Part II.

So the Schönian swamp is of considerable significance for the future of Western capitalist democracies – and will probably have increasing significance for other parts of the world as capitalism and democracy catch on in various symbiotic ways. What is required from those with educational interests and responsibilities at work is a sophisticated understanding of the practical accommodations available between working and learning. This is a requirement because only by understanding what practical accommodations are possible can better practical work and better practical learning be identified.

This book outlines helpful areas to look for in making such practical accommodations. In the legacy of Schön, it brings to prominence hitherto low-status yet ubiquitous knowledge. It starts with the recognition of certain common daily

experiences adults undergo at work and in life in general, and takes these seriously as a foundation for learning. So this book tries to illustrate the very practicality it avows, but at the same time it presents challenging conceptualisations of that practicality in these postmodern times.

2 Know how

Practice at close quarters

2.1 Hot action: organic learning and the postmodern

The doctor has a little, though not much, time to reach a decision as the queue in the waiting-room lengthens. The lawyer preparing a brief has more time, as does the clergyman visiting a bereaved person; although both have to be prepared to meet the unexpected. But the teacher has no time at all to reflect: choices made during the preparation of teaching may be decision-governed, but those made during the course of teaching are largely intuitive. The pressure for action is immediate, and to hesitate is to lose. The whole situation is far less under control. To adapt a metaphor of Marshall McLuhan's, action in the classroom is hot action, while action in the consulting room is usually much cooler.

(Eraut 1994 p. 53)

This is a book about practitioners' 'hot action'. It seeks to make sense of those processes and acts of judgement endemic to everyday experiences at work and indeed in life, from which adults learn. Our focus is on paid workers, be they teachers, crane-drivers, nurses, paramedics, fast-food retailers, surgeons, gardeners, lawyers and the like, but we also believe unpaid work, in the community and in households – say, as parents – also suits this experiential emphasis. Any setting which is amenable to provoking deeper consideration of intelligent action, that is, where adults can learn how to go on, is of interest to us. Such learning has an epistemological basis in 'know how' – and philosophers have a rich literature in 'knowing how' to go on.

Eraut, quoted above, is dealing with the 'hot action' of professionals' work, and we want to use this vivid metaphor in both professional and non-professional settings. Rather than take a stance on the old debates over the boundaries of 'professionalism' and on whether certain kinds of work are exclusive to a 'profession', we can start with the assumption that one of the central distinguishing features of a professional's work (wherever it is found and by whomsoever it being done) is the expectation of discretionary judgements. Such judgements mark out the very practice of professionals' work, but to a certain

extent all adult work activities (both paid and unpaid) have some element of discretion about them. What to do in the heat of the moment? How do I go on? What is to be done for the best? These questions occur every day in human practices, although they are rarely asked explicitly. Yet they require substantial judgements, made in the flux of practice, and these judgements contribute powerfully to epistemological claims about workplace learning, currently generating considerable explicit attention in policy-making and provision in non-school settings, as well as in schools and teaching. These judgements involve the whole of a person's experience (by this we do not mean their entire life history, but the involvement of that person's feelings and desires, wants and thoughts, and of course their embodiment) amidst the time across which the judgement and the heat of the action persist. This breadth and intensity of experience is, we argue, the basis for 'organic' learning, which we develop in section 2.4 and thereafter.

Some examples show this explicit attention. Informal and incidental learning in the workplace, for professionals and non-professionals alike, is being addressed through non-classroom provision such as mentoring, appraisal, and personal development plans, and through structural innovations such as mechanisms for quality management, and in the ideal of a learning organisation. The pedagogical point of these is to make adults' work experiences educationally significant. What seems to be missing is a philosophically rigorous account of this pedagogical point, and this book will meet that omission. In giving this account, we take postmodernity seriously, not so much in adding to the already rich theoretical literature on postmodernism (even the term is problematic), but in locating the diversity of adults' potential for learning from experiences squarely in just such a diversity of work sites. Descriptions of contemporary life under postmodernity acknowledge a variety of 'narratives', and a diversity of accounts of experience which these narratives legitimise. We want to move around within such a fluid set of descriptions, staying close to the particularity of workplaces as sites of practice, and thus Part I sets out what we believe practice is like in postmodern times, before Part II theorises practice anew, from an educational perspective, in the light of postmodernity.

As we have stated, particular work-based practices arise in the freedom to discriminate appropriately in the midst of flux – the here and now of the courtroom, the building site, the consulting room, the factory floor, the classroom, the ward, the theatre, the workshop, the quarry, the council chamber, the kitchen and so on. Practitioners at work, such as teachers, find themselves making all manner of decisions when faced with the inevitable contingencies arising from their leadership situations amongst other people. Parents are practitioners too – they work hard and always in leadership roles. Across the spectrum of adult work life, from the professional to the parent, this powerful informal learning is relatively unscrutinised for its educative significance. When the heat is on, in settings where judgement is called for, practitioners are expected, and themselves expect, to get it 'right'. This rightness is really what an appropriate discrimination will deliver, but of course the claim that thus-and-so turns out to be 'right'

does not advance the analysis of practice very much. In the minute-by-minute experience of practice, what can we rely on to arrive at the ‘right’ response? The common candidate here is know how, but does it help?

2.2 Which practices? What knowledge?

In starting to think more rigorously about know how, we need to be clear about practice. What is ‘practice’? It is certainly not merely ‘technique’, although technical expertise (certain sorts of skilful dexterity, involving manipulation of materials, objects, processes and ideas) is essential. Technique is a necessary but insufficient component of practice. Practice involves a richer set of phenomena: a body of knowledge, a capacity to make judgements, a sensitivity to intuition, and an awareness of the purposes of the actions are all involved in some way.

Furthermore, in these postmodern times (of which more later), practice is imbued with a certain particularity. The settings of practices are usually regarded as local and relatively site-specific, because postmodernity – rightly in our view – advocates a good deal of circumspection and modesty about claims to solve problems. The grand or meta-narratives of the Enlightenment, at least in education thinking, are now exposed as knowledge-claims that are too universalist in scope. For example, the implicit acceptance of the educational elitism of the grammar school curriculum, or the classical university syllabus with its implicit relegation of apprenticeship (for the trades and for nurses) to the ‘unthinking’ end of learning, is nowadays regarded as but one narrative amongst several – and one with some unsavoury political implications, at that. The rhetoric of academic excellence, when combined with the practice of equal opportunity, often invites participation in learning where outcomes are grossly inequitable. This is tantamount to an invitation to educational failure for many students, and is unsavoury because it is unethical. Such a school or university is presented as a bastion of educational values, with many students’ achievement (or lack of it) residually their own responsibility.

So practices and knowledge claims are tied together in some way. Part I of this book deals with this relationship. In this chapter, we focus on learning experiences that adults undergo during ‘hot action’. In the next chapter, we explore the potential these may have for knowledge through the exercise of practical judgement. So, for us, attention to the ‘local, the personal and the particular’ is crucial, but not because we believe there is a true ‘self’ to be uncovered through making judgements. On the contrary, postmodernists have affirmed that ‘the postmodern story of the self is that of a decentred self, subjectivity without a centre or origin, caught in meanings, positioned in language and the narratives of culture’ (Usher, Bryant and Johnston 1997 p. 103). We believe this to be an overstatement – it leaves the self too radically distributed, prey to linguistic idealism, and devoid of human agency. However, it does problematise individual experiences as sources of learning and therefore of human identity, while de-emphasising universal solutions to those problems. In this book, we want to take

up the challenge thrown out by this statement. Our practitioner could look too ruggedly individualist, so it will be important to locate practitioners in their workplace settings. To overcome the reduction of practice to the experiences of a single individual, in the fourth chapter we directly locate the construction of the individual self within socio-cultural contexts, using several policy examples to show how this is possible and indeed desirable, thereby avoiding a collapse into individualism as well as avoiding the excesses of the radically distributed self.

But where is work going? Practices are evolving right across paid and unpaid work which give us some indications of the challenges facing a new epistemology for postmodern times. The following factors should be considered in creating such a new epistemology:

- there are consumer market forces generating higher awareness of accountability (in, say, law or medicine) – people (clients, consumers) can ‘shop around’
- there are divergent perceptions of practice within many occupational groups, especially in the professions; for example, ‘alternative’ medicine, home-schooling, and socially-reformist law
- there are increasing numbers of ‘contingent’ workers (contract, sessional, casual and part-time work) whose ‘just-in-time’ availability meets Western employers’ needs for highly mobile, single-purpose workers
- there are all manner of ‘customisation’ possibilities for the contingent workers as they look to project that work-winning edge: what melding of what qualifications and experience would do this – and what would do this in a few months?
- there are personal and family commitments which all adults must combine with the factors above, and there continue to be difficulties, especially for mothers, in entry into and advancement in high-status paid work.

A variety of ethical and epistemological consequences follow from these points. We argue that they also have ontological significance, because the kinds of persons that are constructed (the very senses of selfhood) have character-laden implications. People can be citizens, adults, parents, consumers, bread-winners, tax-payers, subjects, agents – and they can of course also be learners. These identities are contiguous and yet overlap, and they are constructible and reconstructible in particular practices that are intended to be educative.

So even amidst a globalising world, we urge closer attention to these more ‘local, personal and particular’ phenomena. In the spirit of postmodernity, we argue that the ways these global changes play out is likely to be divergent. And this divergence fits with postmodernity’s interest in local practical differences and in the construction of a multiplicity of identities. For example, occupational categories involving work with people and with symbols (such as text, images and numbers: see Reich (1992)) are growing at the expense of technical and industrial categories. Whatever the occupational category, we advocate that educational theorists give attention to practices, because all work experiences

may give rise to knowledge claims if they can be revitalised by Schönian ‘reflection-in-action’. To reiterate, then, we do not see know how as the exclusive preserve of the professional practitioner. Rather, practice right across adults’ work activities is, we believe, a worthy focus for new ways of knowing.

Investigating epistemologies of practice therefore requires sensitivity to:

- the growing *diversity* of society, especially in the marketplace
- continuing *power* relations both among peers and between practitioners and their clients
- the linguistic *articulation* of these relationships in specific socio-cultural settings.

Diversity, power and socio-cultural articulation (as discourse), are, according to Burbules (1995) three key ‘postmodern’ descriptors, and we will be drawing out their significance in Part I.

2.3 Making sense of practice

Know how has not fared too well in previous attempts to make sense of adults’ learning. Consider Table 1.

Useful as this table is, note the absence of postmodernist influence. Here are five ‘narratives’ without a sixth – ‘postmodernity’ – identifying that the other five are indeed narratives; that is to say, they have a less-than-universalising place in the panoply of theorising about adults’ learning practices. But also consider that another omission is the ‘apprenticeship’ as a mode of learning. What does this indicate about academic attempts to make sense of adults’ learning? To us, it means that learning-by-doing, which may not generate nuanced written articulation of purposes, is rendered invisible. Instead, there are many advocates for each of the five ‘schools of thought’ – and libraries are replete with literatures on each one. Embodied learning, through the actual doing of the work, is not listed. It is not hard to conclude that the arduous and demanding embodied work of parenthood also fails to register in the table, for the same reason.

However, Foley and others helpfully draw our attention to three orientations to practice:

- technical practice
- interpretative practice
- critical practice.

These various orientations make sense of practical learning activities like the following, as we will now show:

- skill audits, needs analyses
- problem solving, workshopping
- learning-to-learn, double-loop learning

- critical thinking, evaluation
- negotiation, collaboration, interactivity, interpersonal skills
- formal theory and knowledge, including regulations (such as occupational health and safety)
- literacy and numeracy in general
- vocationally specific case studies, informal presentations
- simulations, role playing
- mentoring, coaching
- reflection, journalling
- work placements
- expert instruction and guidance
- peer group instruction and guidance
- information technology including audio-visual presentations.

Technical practice sees these as sets of skills in the straightforward instrumentalist sense that Schön warned us about in the early stages of his books (1983, 1987), where he discusses ‘technical rationality’. Our view of technical practice is that it is a necessary part of more holistic practices, but it is not sufficient as an account of practices at all; indeed we want to reserve the notion of a ‘practice’ for those phenomena that do deal seriously in the human arts of know how, reflection, intuition, the tacit and so on. For us, technicism fits with a behaviourist stance on adult learning. By contrast, *interpretative practice* is, we believe, what Schön was most interested in, so the full range of what is now called ‘humanist’ adult learning encourages most of the activities on this list to develop.

Critical practice, has, for Foley and many adult learning theorists, a socio-politically located scepticism towards the status quo. The ideological legacy of this has been played out in various revolutionary and reformist imperatives throughout the twentieth century. Environmentalism, feminism, Marxism, post-colonialism, minorities and the oppressed in a variety of settings are quite rightly the focus of critical practice construed in this way. Our approach – in chapter 4 – is to critique what we see as the excessive individualism of Western policies, and many practices which are predicated on the self-directed learner. The autonomous chooser (= consumer) is given free reign by the ideology of neo-liberalism, which endorses the isolated practitioner and the individualistic learner. Instead we explore relational practices, and we advocate connections between particularistic experiences in their socio-culturally specific contexts. This is how the spirit of postmodernity is apparent in our stance on critical practice.

We argue that such an approach allows for and encourages a more creative approach to this range of learning outcomes:

- technical, legal and ethical requirements of the industry, profession and worksite
- confident communication with clients and peers across a variety of contexts

Table 1 Schools of thought in adult education and training

<i>School of thought</i>	<i>Aims of adult education</i>	<i>Major writers</i>	<i>Focus</i>	<i>Acceptable content</i>	<i>Role of teacher and learner</i>	<i>Teaching methods</i>
(a) Cultivation of the intellect (traditional school)	Fill learners with politically neutral and traditionally worthwhile knowledge to discipline the mind and develop rational people	Paterson and Lawson	Individual	Intellectual knowledge in the 'classic' disciplines, e.g. history, maths, morals, philosophy. Less attention to attitudes and practical skills	Teacher in full control – decides all content and activities. Students are passive and education is teacher not student centred	Mainly lecture
(b) Individual self-actualisation	Personal development of individuals towards full happiness and 'self-actualisation'. The aim is self-direction and self-fulfilment	Carl Rogers, Malcom Knowles	Individual	No <i>one</i> body of knowledge. Content is affective (attitudes and feelings) rather than cognitive. Main source of content is personal experience, not books	Equals – teacher is a facilitator of learning. Teaching is student centred and personal. Assumes students are capable of deciding what to learn	Content is secondary to process. Experiential methods, including discussion and simulation

<i>School of thought</i>	<i>Aims of adult education</i>	<i>Major writers</i>	<i>Focus</i>	<i>Acceptable content</i>	<i>Role of teacher and learner</i>	<i>Teaching methods</i>
(c) Progressives (Reformist)	Main aim: Growth of the individual <i>and</i> promotion/ maintenance of a 'good' democratic society. An independent individual is seen as promoting a healthy democracy	John Dewey, Eduard Lindemann	Individual within a social context. Individual freedom is important	Curriculum focus is the immediate problems and needs of the student. Emphasis on reflection and action. Students are involved at all stages in deciding what is relevant	Partnership. Teacher is not passive. Organises, stimulates and suggests. Teacher and student learn from each other. Teacher's role similar to (b) but more <i>active</i>	Problem solving/scientific method/learning projects and contracts
(d) Social transformation (Revolutionary)	Uses education to help create a new social order	Paulo Freire, Myles Horton, Mao Tse-tung	Emancipatory, social transformation	The collective experience of participants, codified by educators	Teacher is an equal participant – works with the group to create the 'curriculum'	Problem posing, action and reflection on action. Dialogue is a central way of doing this
(e) Organisational Effectiveness	Development of desired skills and attitudes to help an organisation more effectively achieve its goals	Chris Argyris, Donald Schön	Organisational needs, goals and effectiveness	Organisational concerns constitute the curriculum	Trainers transmit organisational curriculum to learners	A variety of techniques is used; outcomes are assessed in terms of objectives achieved

- underpinning knowledge and awareness of the need for breadth of resources and data
- consciousness of future learning needs and opportunities
- understanding of workplace roles and responsibilities
- substantiated judgements as shown in interpretations, assessments and evaluations, especially where a diversity of evidence is explicitly sought
- self-directed learning which can be articulated in socio-culturally significant ways.

How does a postmodern perspective help us understand these better? Simply put, we argue that the effect of this greater sensitivity to what Bryant and Usher (1997) call the ‘local, personal and the particular’ helps us in two ways. First, it de-centres claims of ‘knowledge’, and emphasises acts of ‘knowing’; it centres on the experiential authority of diversity, discourse and power. Second, it de-centres the individualistic self, and emphasises the relational; it centres on the connectivities which make us who we are at nodal points in our experiences.

Now that we have some idea of what ‘hot action’ is, how it presents in practices amenable to learning, and how these may be theorised, let us look more closely at two areas of practice. In both of these, the action is undoubtedly ‘hot’. The work life of the manager and of the nurse have the potential for learning that we call ‘organic’, that is – recalling section 2.1 – involving the whole person: her or his feelings and wants, desires and thoughts, all embodied in action. There is an experiential intensity about this work which shows the construction of know how at close quarters.

2.4 Practices 1: Managers’ work and learning

Managers’ learning is typically shaped by what gurus say it should be. There are some helpful things gurus have said about managers’ learning – indeed we build on these at several points – but if hot action is a useful way in to organic learning, we need to think clearly about what managers actually do.

Here we should be careful about the difference between the factual and the folkloric. Mintzberg (1989) details this distinction in his first chapter, luminously titled, ‘The Manager’s Job: Folklore and Fact’. The folklore is that managers ‘plan, organise, coordinate and control’. However, Mintzberg goes on to say:

The fact is that those four words, which have dominated management vocabulary since the French industrialist Henri Fayol first introduced them in 1916, tell us little about what managers actually do. At best, they indicate some vague objectives managers have when they work.

(Mintzberg 1989 p. 9)

Mintzberg’s own research findings (or what we know about managers) lead to this conclusion:

Considering the facts about managerial work, we can see that the manager's job is enormously complicated and difficult. The manager is overburdened with obligations; yet he or she cannot easily delegate his or her tasks. As a result, he or she is driven to overwork and is forced to do many tasks superficially. Brevity, fragmentation and oral communication characterise the work. Yet these are the very characteristics of managerial work that have impeded scientific attempts to improve it. As a result, management scientists have concentrated their efforts on the specialised functions of the organisation.

(Mintzberg 1989 p. 14)

Looking, then, at what managers actually do (the 'facts'), not what they hope to do, nor what their organisational setting is doing, we can pick up how they learn. Not surprisingly, while at work, managers can learn powerfully through experiences which are intense, dynamic, uncertain, and decisional. Like most white-collar jobs, and in particular professional work, managers' work is 'hot action'. They share with teachers, nurses, lawyers, surgeons and the like the heat of the moment where decisions are taken on the run, case by case, and with the nagging doubt that action might be inadequate – superficial, hasty and inappropriate.

Brevity, fragmentation and oral communication characterise the work

'Brevity, fragmentation and oral communication characterise the work', says Mintzberg. And all in the context of 'hot action'. 'Hot action' lends itself to rich possibilities for organic learning (Beckett 1996). It is this perspective on managers' work which generates many possibilities for managerial learning.

After all, we know the old model of static, hierarchical command, with learning as the filling up of empty vessels with knowledge, is supposed to be history. Schools threw it out about two decades ago. Traditional corporate training was based on this idea, where a trainer 'filled up' the skill deficit by running trainees around a set course of skilled behaviour again and again until they got it 'right' – then the assumption was this new skill would transfer readily to the real work beyond the training classroom. We know now that these 'empty vessels' were often only temporarily filled with the required skill or knowledge, and that even then transfer to real work was rarely accomplished.

Training is a traditionally low-status, intellectually uninteresting activity, with an academically arcane justification (psychological behaviourism) relating to dogs, rabbits and rats. Girls and women were trained in domesticity via 'craft'-like skill and attitude acquisition. Experiences as a skivvy, nanny, midwife, wet-nurse, witch, companion, consort, charity-queen, mistress and so on were, in labour market terms, reactive, producing psychological vulnerability and educational marginalisation. Boys and men, on the other hand, were educated in the 'liberal arts', unless they were working class, in which case they may have learned to plough, to shoe, to thatch and, later, to work the new machinery in the mills. The construction of individuality – of the person – resulting from these

socio-economic realities is now well-known and currently under re-negotiation. But we are still living with a perspective on training which is disdainful.

The old ‘empty vessels’ model of learning – based on behaviourism – has now been by and large replaced by more action-oriented approaches. In accord with humanism, learning is now shaped by facilitating a set of ‘rules’ for particular enterprises to advance. This has a lot going for it, and there are many gurus with recipes for success here.

One such guru is Argyris, who lists (1993 p. 5–6) some key assumptions for what he calls ‘leading-learning’, his term for the contentious issue in adult and vocational education concerning the appropriate description of those who find they have responsibility for the learning of others in their workplace, and for whom the term ‘teacher’ is just false. The current preferred term is ‘facilitator’, with ‘guide’ emerging as a more educationally defensible synonym. Argyris’s key assumptions are:

- 1 Learning should be in the service of action, not simply discovery or insight. The evidence that managers know how to lead learning is that they can produce action based on double-loop reasoning.
- 2 The competencies involved in leading-learning are the same when dealing with individuals, groups, intergroups, and organisational features such as culture.
- 3 The first key to leading-learning is not personality or style. Rather, the key is the ‘theories of action’, the set of rules that individuals use to design and implement their behaviour.

Here Argyris is drawing on his earlier work with Schön (Argyris and Schön 1978) in which they distinguished between ‘single loop learning’ and ‘double-loop learning’. The former is a simple behaviourist feedback loop, with adaptation to changing circumstances in organisations its feature. It is essentially reactive. The latter is the conceptual innovation for which Argyris and Schön became famous in the field of organisational development. ‘Double-loop learning’ uses the model of the Moebius Strip (where a single strip is looped back upon itself, but with edges twisted once through 180 degrees, thus forming a figure eight shape), to outline a critical stance to the assumptions upon which the organisations are acting. This stance is both reflexive (it encourages action, not merely reaction) and reflective (it encourages an interrogative stance to received views). Later in this chapter (in section 2.15) the significance of this model is discussed in an attempt to move beyond the limitations for know how of ‘feedback’. The term ‘feedforward’ is introduced to help. By 1993, Argyris was exploring how individuals in organisations serious about double-loop learning can develop leadership in reflexive and reflective ways.

Argyris starts out with a recognition of what we are calling ‘hot action’, with his first principle. His second principle clearly identifies the significance of managers’ leadership in context. His third principle shows a preference for a set of rules that individual managers use, that is, apply, in their workplaces. Yet

'theories of action' which issue in a set of rules for action is, this chapter will show, not the best way to think of managers' learning. Rule-based approaches, such as Argyris', are oriented toward problem-solving, which is of course what marks out a lot of the manager's daily life. That much is well recognised by Mintzberg. But can rule-following amidst 'hot action' help managers' learning?

This book moves beyond what some have called this 'cognitivist' model, where what is significant learning is defined by the exercise of rationality. In doing so, it recognises that the best management learning in the next few years will seize upon the very 'brevity, fragmentation and oral communication' which characterises managerial work, and will convert this to something visionary, growth-focussed and integrative. In short, it replaces the filling of empty vessels, and the facilitation of rule-following, with what we can call *organic learning*.

Organic learning is already starting to become evident, but in different contexts. Here are three examples:

- Mentoring and coaching programs, which are most effective when they deal in the sociocultural experiences of the participants: there is a personal investment in 'fitting in' fast; this is integrative and growth-conducive.
- Project-based management, which focuses learning in outcome-driven ways, where there is an urgent requirement to achieve those outcomes before the sunset of the project; this drives the reliance on 'hot action' simultaneously with an integrative purpose.
- Competency structures for professionals, which are most effective when breadth of judgement is recognised as a vital component of the performance indicators. Such judgement is best understood as an integrative experience, because in the midst of 'hot action' we bring to bear upon our decisions a wide range of relevant considerations, focussed however on the 'appropriate' response.

We shall outline how these three advance organic learning shortly. The central point, though, is to recognise in each of them the primacy of both the 'brevity, fragmentation and oral communication' generated by the real workplace, and also the drive to achieve a vision which is integrative. Organic learning is advocated as the new concept which glues all this together.

Let us look at another area of 'hot action', nursing, to advance the notion of organic learning a little more.

2.5 Practices 2: Nurses' work and learning

The context of nurses' learning has always been institutional: either a hospital, or currently, a university or equivalent. After all, nurses learned traditionally by doing the work, as part of the labour force of a hospital. Nursing education has emerged from a hospital-based apprenticeship model of workplace learning, and is seeking to maintain a nurturant ethic as the basis of professional work. But the nature of the work and the formation of an identity are closely linked.

After all, nursing is about caring for those in need of restoration to health, and it strives to mark itself as a profession on that basis, as well as maintain its links with other professions' knowledge bases, principally medicine, which is about curing. Throughout the Western world, recent changes to nursing education have moved pre-service preparation to tertiary settings, with degree courses in nursing as an applied science grappling with nursing identity. This is not the place to discuss the complex history behind, nor current theoretical influences upon, the emergence of a post-apprenticeship nursing profession, but it is a fascinating saga. Our interest is in whether integrative practice has a part in reformulated nursing education, recognising that such education will be partly classroom-based, and, increasingly at graduate level, clinical. Given all this, then, how is nursing identity constructed in these postmodern times?

Nursing, in seeking to maintain and develop its caring ethic, locates practice in welfare of the whole person, that is to say, organically. So holism is a serious central issue in nursing, especially in the clinical teaching at both pre-service and post-initial levels. A prominent nursing theorist, Watson (1988), endeavours to specify holism through her theory of 'transpersonal caring', which she sees as:

scientific, professional, ethical, yet esthetic, creative and personalised giving-receiving behaviours and responses between two people (nurse and other) that allow for contact between the subjective world of the experiencing persons (through physical, mental or spiritual routes or some combination thereof). (p. 58)

Where connections are co-extensive, mutually inclusive and multiply exhaustive, then nothing is excluded. This makes any claim for holism totalistic and uninteresting. Watson's outline of nursing practice looks like a recipe for professional exhaustion, not holism. More recent writers see it as problematic for nurses: 'Holism is a turbid, amorphic term, of Quixotic character, the meaning of which alters according to the context in which it is located' (Owen and Holmes 1993 p. 1688).

Yet Watson does highlight for us in her overstatement the need for the nurse to read the particularities of the bedside, the ward, the theatre and the clinic in an integrative fashion. That is, learning in those contexts can be holistic if the educator is sensitive to particular values. Powerful learning in clinical settings is emerging through what adult educators are calling 'problem-based learning' (Boud and Feletti 1991). Here, actual clinical issues are addressed (or made available in simulation) and professional judgements made in the light of 'normal' practice. Thus problems that are often critical incidents, and are certainly contingent incidents, are brought to reflection in and on action by and for people expected to deal with them. Here, the place of intuition (Noddings 1984) and other forms of know how such as critical thinking itself, are much debated (Brookfield 1993), especially since nursing has been substantially influenced by feminist approaches to epistemology and science (Harding 1991; Belenky *et al.* 1986), and to ethics (Noddings and Shore 1984), building on the relational ethic,

as shown later in this book. Yet, traditionally, these epistemological claims have had low status, if any status at all, in their profession, and for that reason, they did not construct a powerful professional identity for the nurse.

Caring, reflection and physical communication characterise the work

If nurses can preserve the nurturant ethic, and the particularistic approach to holism, they are well-placed to continue to develop problem-solving as a ‘hands-on’ strategy. Nursing is about bodily effort and bodily functions: communication with patients starts with ‘body language’, in that how a nurse touches, handles and thereby carries out the caring communicates the ethic of the work in general. Nurses’ reflection on these common experiences at work, and their communal ownership of the judgements that result, have shaped the profession, and driven the identity issue we have already noted. The learning about nursing comes from this sort of ‘hot action’, and the decisions under pressure, and also through routine, which nurses find themselves making. They share these in ways managers do not and perhaps cannot do.

The additional elements of reflective practice and of modelling, through preceptorship, enrich these judgements immensely, and may well lead to a new nursing professionalism, and hence a new identity, neither a clone of the traditional medical practitioner, nor a caricature of social welfare work.

In this context, then, organic learning for nurses is shown in practice by:

- provision of common time and space for sharing experiences
- clear expectations of legal, ethical and workplace-specific accountability
- management of the work environment which is more collaborative than consultative
- tangible educational support for career pathways (research activities, study time, specific skill training)
- collaborative establishment of a workplace ‘mission’, detailed in achievable and equitable objectives, and linking these to evidence of learning (journaling, conference and other papers, presentations to peers, appraisal).

2.6 Organic workplace learning

So far we have identified the characteristics of managers’ and nurses’ work, and linked these to certain emerging characteristics of workplace learning. If organic workplace learning is to grow it must be cultivated quite explicitly. Managers and nurses (as discussed in sections 2.4 and 2.5) would need to explicitly surface adult learning focused nonetheless on growth and purpose. They could bear three simple questions in mind during hot action, such as these:

- What are we doing?
- Why are we doing it?
- What comes next?

Answers to these simple questions can provoke workplace learning for managers and nurses because they represent context-sensitive, yet visionary, responses to daily work experiences. These can be implicit in mentoring/preceptorship, in projects and in competencies. They provide the 'glue' which converts the brevity, fragmentation and oral communication of the typical manager's work day into focussed learning. For nurses, they focus the caring, reflection and physical communication which are inherent in the work.

In brief, they operationalise organic learning, but in structures where the answers to these questions are readily available: the intention of the mentoring/preceptorship, the purpose of the project, and the evidence of the competent judgement. After the three examples are further outlined and contextualised into case studies, some common characteristics are discussed, and the definition of organic learning pinned down.

2.7 Three examples

These examples, while hypothetical, are drawn from similar authentic cases.

2.7.1 *Mentoring/preceptorship*

Alex has joined Humus Consolidated, an organisation specialising in land-care processes and products. All new employees are linked in a mentor-mentee scheme, with the purpose of induction, to more experienced staff. Alex's mentor, Lee, has agreed to assume this role, is not in a line of responsibility for Alex, and has undergone some training in the implementation of mentoring. Lee's knowledge of Humus extends over several years, and includes substantial specialist knowledge in an applied science. Nevertheless, in the mentoring scheme, Alex and Lee agree at the outset that induction is best pursued by way of more generic 'counselling' approaches, rather than specific 'coaching' approaches. Regular meetings (half an hour once a fortnight) with follow up note-keeping and some tasks to carry out by Alex have centred on discussions about what work Alex is doing, why these actions are being performed, and the overall significance they may have at Humus. Answers to these questions emerge as Lee 'counsels' Alex in the development of a sensitivity to social and cognitive understandings as these present at Humus. The culture of Humus – 'the way we do things around here' – is assimilated by Alex. But more significantly Alex is guided in that assimilation by Lee's skilful usage of questioning: How does X fit with Y? What implication would doing B have for A and C? What would you need to bring to (certain tasks and events) to plan for success? These generic questions are powerful for Alex because they provoke a sense of ownership of the learning process at and through the workplace. They explicitly surface adult learning, in a particular context. Moreover, they deal in the values of Humus, of Lee and of Alex: they do not restrict the mentoring scheme to cognitive knowledge, but address the feelings and emotions inevitably generated by induction. In doing this, Lee is able to show Alex that there are more or less appropriate ways of dealing with the affect-

tive as well as the cognitive side of workplace learning, at least at Humus. If the counselling approach to mentoring is successful, Alex should be able to demonstrate in actions at work an understanding of the necessity for sophisticated interpersonal skills such as problem-solving, communicability, team membership and perhaps embryonic leadership (Beckett 1994).

2.7.2 Project management

Elsewhere at Humus, a large Information Technology project is in the offing. This involves many desktop computer and server upgrades, a new e-mail program for the whole staff, and the development of the organisation's first web site. A project team has been formed, combining expertise from several sections of the organisation, such as IT support, human resources, marketing, applied science and so on, and there is an end of the year deadline. This is a unique project for Humus, and has been given a high organisational priority with appropriate resourcing. The project team has been meeting for some weeks and is well into its 'life cycle', characterised in rather cheeky fashion in some literature (Robbins 1993) as: forming, storming, norming, performing, adjourning. At Humus, the team is somewhere in the storming–norming range. Members have moved beyond the individuality of their discrete expertise (in forming the team), but they have not yet reached that optimum level, performing, when work on the project is at its most effective. Rather, their meetings are often marked by conflict over the project's priorities and operations, and by grappling with their identity as a group. Leadership and the balance between perceptions of the needs of the project for the team members are prominent issues. A common ownership of the project has yet to emerge in the detail of how best to achieve its purpose. What is being done, why, and what comes next are all negotiable. As a learning environment, the project team presents as a porridge of expertise, emotions, ideologies and energy. Certain 'people' skills, such as conflict resolution, task analysis and shared time management, as well as everything Humus's mentoring scheme is about, will be essential. Establishing order will be important, but not at any cost. Ownership of the project by all involved implies that everyone will have to recognise strengths in others, and admit to compromise in themselves. This will probably happen. After all, the team members want to be part of a success story.

2.7.3 Competence

The staff cafeteria at Humus was rocked by a blazing row. Two prominent employees exploded in anger with each other, culminating in the accusation: 'You're completely unprofessional', with appropriate body language. People left the room, embarrassed. Many practitioners have experienced and keenly felt the force of similar accusations, because so much competence is inferred at work when we regard ourselves and each other as professionals. At Humus, staff are involved in a Professional Development Plan, and there is a requirement that at annual appraisal time, evidence of achievement in the PDP be presented. Links

with competence can be established in several ways: technically, practically, strategically and personally, skills can be identified and developed. New IT expertise, shown through completion of a formal course, would be technically relevant if Humus IT needed that expertise. But already, then, that becomes a strategic skill or competence, and perhaps also a practical skill or competence, if it arose in daily workplace experience at Humus. Personal skill or competence, in the ‘people’ skills we identified in the first and second examples, would be required if that new-found IT expertise involved performing it with other people, such as on a project team. Then, on a continuum ranging from ‘technique’ to ‘values’, we have moved across to the ‘values’ end, where there needs to be an integrated way to identify competence in the value-ladenness of work (Heywood *et al.* 1992; Hager and Beckett 1995). Judgements about appropriate decisions (involving not only IT but also any other ‘hot action’ at work) require the marshalling, or integration, of a range of considerations: technical, practical, strategic and personal. Gluing these together with professional competence is a complex and elusive achievement; Humus has an appraisal scheme which invites evidence for that achievement. In effect it asks employees the same simple questions we have asked all through these examples: what have you done? why have you done it? where did it lead?

2.8 Common characteristics

These three examples have shown that three simple questions can be asked and substantially answered in particular settings. Those three questions are intended to operationalise organic learning, because they integrate various aspects of experience, in a focussed way: via the mentor/preceptor, the project, the professional judgement. Humus Consolidated thus advances organic workplace learning if these three structures encourage the workers involved to explicitly develop their adult learning. There are, however, two other common characteristics, which pin down the detail of organic learning.

First, each example requires that organic learning deals in the *affective* (the emotional, ‘feelings’ side of learning), not merely the cognitive (the rational ‘content’) and each further requires that the affective knowledge be socially-located. Mentoring was in this example induction into a culture. Project team membership was by definition a shared success story waiting to be told. Professionals’ competence is shaped by integrative judgement, inevitably involving people and their workplace feelings and location. In all three examples, organic learning centres on people owning to some extent their feelings, both personally and inter-personally. It is this which defines what is integrable about organic learning.

Second, each example requires *appropriateness*. For mentoring, the ‘way we do things here’ is just that – the ‘appropriate’; for project teams, the way forward is the ‘appropriate’ way, and for professionals, judgements about what to do are decisions about the ‘appropriate’ course of action. Appropriateness is the great unexamined concept in workplace learning, and later (in section 2.16), we will return to it. For the moment, we can say that organic learning is shown in a

focus on what is regarded in any particular situation as the ‘right’ (or ‘appropriate’) thing to do. The context, or location, will set up what that focus will look like. It is this which defines what is focussed about organic learning.

Notice that these two characteristics – socially-located feelings and thinking, and the importance of ‘appropriate’ ways to do things – confront what is perhaps the central principle of adult learning in Western countries: self-direction.

Self-directed learning is prominent in workplace and non-workplace learning for adults because it provides a neat way of fitting with our democratic traditions and our enthusiasm for market economics. In short, if individuals (‘selves’) can choose (‘direct’) their futures, they can be grouped into majority votes and market shares. The assumption of the primacy of the individual as a chooser of her or his own learning outcomes, as a self-director, matches the assumption that in voting for political outcomes, and in buying goods and services for consumption outcomes, individuals are in control of their destinies.

However, this book takes the opposite perspective. Instead of starting with individuals, it starts with socially-located feelings and thoughts, and the appropriateness of individuals’ actions in the wider context of their work. Thus, we seek to derive an adult’s workplace practice from that individual’s social and cultural location. We see ‘self-direction’ as embedded in that context, and therefore that individualistic self-hood, at least at work, is a particular construction required in various ways by the values and operations of the workplace.

2.9 Organic learning and the whole person

So the focus of organic learning as we have been outlining it so far is on the individual in the sense that ‘selfhood’ is of a living embodied being, which work contexts shape or construct. The thinking and feeling, and the guidance of what is judged appropriate action, are for us primarily whole experiences. That is, when workers invest a good deal of their time and energy in doing a good job – or even a less than a good job – they are becoming a certain sort of individual. Their sense of ‘self-hood’ arises from their whole experiences at work, not their thinking to the exclusion of their feelings, neither is it their individuality at their expense of their sociality. On the contrary, workplaces are social contexts, more often than not. Workers find them-selves, that is they construct their selves, in the ordinary, daily round of experiences of workplace values and operations – and for most of us, this means mixing with others.

So we see individuality – and the core adult learning principle of self-direction – as flowing from the formative social nature of work. On this basis, we are able to explore the identity of the postmodern practitioner in a more creative way than the traditional emphasis on self-direction would entertain. Instead of the linear exploration of learning possibilities, with its overly rational view of reflection, we want to invite some lateral exploration, by opening up reflection to the feelings generated at and by work. These feelings will be present in a range of values and operations at work, and we have seen how in the three examples outlined earlier in this chapter, people are constantly changed by and are

changing workplace experiences. The point is that these are social experiences first and foremost. Mentoring schemes, project membership, and competency structures are group-focussed: they deal in the values and operations of people, not individuals, at work. Yet it is an individual who learns from these. Thus an individual's self-direction is derivable from their social experiences in participating in mentoring, projects and competencies, for example.

As soon as the social context of work is given this emphasis, then the kinds of know how required to actually do the work change dramatically. Instead of the usual and traditional interest in know how as that semi-mystical practicality which gets the job done, it is possible to outline different sorts of know how: those that centre on 'people' skills. These are expressed in lists of capabilities such as: conflict resolution, interpersonal communication, team leadership, facilitative decision-making and so on. Often, and unfairly, these capabilities are labelled as 'soft', in contrast to the so-called 'hard' skills or capabilities that display the technical or clinical or substantive expertise which a worker possesses. This sort of expertise is usually revealed through a linear logic, $A > B > C$ reasoning, which has rule-following as its main method. It is assumed that this 'hard' expertise has very little to do with the 'soft' expertise required in human and personal relationships. We dispute this polarisation. Expertise required for the exercise of human or 'people' skills or capabilities is often extraordinarily 'hard' by virtue of its complexity and intangibility. Yet it is to this area of know how that we look for a certain sort of postmodern practice. After all, if the linear view of cognitive knowledge is to make any sense, it is in the social context of work, where values and operations are shaped and re-shaped amongst one's peers. So inevitably 'people' capabilities will be at the forefront of successful practice in the professions, and indeed in any workplace which workers share. These will be central to any serious re-conceptualisation of what equips adults for 'lifelong' or 'continuous' learning, through the very activities of the workplace. We argue in Part II that this leads to a re-consideration (perhaps a de-centring) of the traditional epistemological supremacy of formal learning, such as is marked by university credentials (cf. Hager and Beckett 1998).

Thus, vocationalised lifelong learning can be investigated for its expectations of the 'whole person' at work. Work experiences are, let us emphasise, highly situational. It is my office, factory and lunchroom which fires me up and cools me down on a daily basis. Each worker relates first and foremost to her or his immediate work setting, and expects the wholeness of her/his personhood to be manifest in the sociality and ephemerality of that setting. But how does the worker come to terms with the experiential richness of the workplace, and of life itself, at work? There are new learning expectations of the worker, as a fully-sentient adult. Here, in 2.10 and 2.11, two manifestations of those expectations are discussed.

2.10 Gender and workplace experiences

If conflict resolution, interpersonal communication, team leadership, facilitative decision-making and the like, and a sensitivity to knowledge gained through intu-

ition and from experiences gained outside the workplace (such as through parenting and in the wider community) are examples of the sorts of expertise now required at work, where would we look to find them? Rather than stay with the usual gender-branding of hard (for men) and soft (for women) skills, it is important to acknowledge that we would need to look across a wider range of adults' experiences for the breadth of skills now required in most workplaces. Indications are that no workplace can afford to ignore the need to develop this expertise, nor that practitioners across the range of occupations can succeed without it. Sure enough, it is in the experiences of, mainly, women that we find the values required for the organic model of workplace learning, and therefore that we also find the basis for the new know how required for the new workplace.

Much research has been done on this in recent years. In her book, *The Gentle Revolution* (1998), Cornelius, drawing on the findings of this research and her own experiences as a psychologist in the corporate world, argues that the failure to incorporate masculine and feminine characteristics into modern management practice is forcing many women out of corporate life. Practice for those who leave the corporation (whether it be private or public sector) then finds expression increasingly frequently in small businesses, where the full range of human expertise is relevant, irrespective of the traditionally sexist cultures of the large organisation. Prominent in such small businesses are consultancies, where many women find that they can develop a more well-integrated experience, with more control over the work-life balance, and of the development of 'softer', or feminine characteristics, while making a livelihood.

Cornelius makes the point that feminine and masculine values at work are ultimately not gender-specific. Good managers – and, by extrapolation, we may claim, all good practitioners in any workplace – have developed both sides of themselves, so that more productive work relationships result. This recognises, says Cornelius, that men and women have fundamentally different perspectives on the use of power, interaction style, focus of attention and comfort zone. Decision-making, which is at the heart of the exercise of professionals' know how, uses concepts like these, but the style in which they are used is gendered. Men traditionally resort to competitive and task-focussed decision-making; women traditionally resort to co-operative and process-focussed decision-making.

Our claim is that organic learning, and the exercise of genuinely well-integrated know how, will depend on both the masculine and the feminine perspectives, and that anyone at work has much to learn from the task, or outcome-focussed, development of the feminine perspectives, summed up in the expertise required for the exercise of the 'soft', or people, skills.

2.11 Emotional intelligence and organic learning

Part of the challenge for a more organic know how is to incorporate a more generous view of human motivation. Colleagues and other people with whom practitioners are involved through their work – such as clients, students, trainees, executives, patients and so on – bring to the contexts of the exercise of know

how, a variety of affective – that is to say, emotional – conditions. People are under stress, or curious, or querulous, or tired, or enthusiastic, much as life in general makes us, and these feelings are part of the workplace ‘encounter’. These feelings need to be brought on board and utilised in the exercise of know how so that the expectation that an outcome can be mutually acceptable is maximised. Again, current work on ‘emotional intelligence’ is leading the way (Goleman 1996). Furthermore, a prominent futurist, James Bellini, is making much of the emotions. Bellini expects corporations, by the year 2025, to have fixed assets (plant etc.) one-tenth the size they are today, but with a much more prominent role for the ‘emotional economy’, where abstractions such as company likeability, brand loyalty and relationships are nurtured (Bellini 1999).

Whatever one thinks of the likelihood or the desirability of this scenario, what Bellini does for us is draw attention to the growing intensity of workplace experiences. Not only are workers expected to possess the requisite cognitive and psychomotor skills, but increasingly the social and the affective skills to keep them employable. Educators are however sceptical of too much ‘skill-talk’. While not denying the centrality of skill formation, what must not be lost sight of is the formation of character. Workplaces, both intentionally and unintentionally, shape workers’ attitudes, values, and, it must be said, the very purposefulness of the work. Any inquiry into workplace learning needs therefore to take seriously the experiences of the whole person at work. Indeed, even more than this, the whole person is inevitably part of a complex network of relationships, the totality of which can be called the culture of the workplace. If learning at work is to become more explicit, it will need to deal in the contextually-sensitive nurturing of relationships. This implies structuring learning opportunities with regard to their cognitive, psychomotor, social and affective dimensions, even as it is recognised that these dimensions present themselves interwoven in daily human experiences.

2.12 Organic learning and better practice

Consider again the three simple questions identified in 2.6:

- What are we doing?
- Why are we doing it?
- What comes next?

First, note that these questions need not be idiosyncratic or capricious. As was shown, they can be embedded in mentoring and preceptorship schemes, into project management scenarios and into competencies evidence. But what do managers and nurses bring to such structures? Managers’ working days are typified by a series of brief, fragmented activities, in which oral communication is dominant (face-to-face meetings, phone calls, e-mail of the chatty kind, lunches and so on). Nurses’ working days – and nights – are typified by activities involving caring, reflection and physical communication (cleaning, lifting,

listening, administering and so on). However, both managers and nurses require practical, knowledgeable decisions of considerable significance, right throughout the daily experience of work.

Second, these simple questions require augmenting: we want to draw attention to the improvement of practice. So there needs to be a fourth question:

- How can I/we do it better?

Faced with current workplace realities – where work is marked by pressured experiences (which chapter 4 discusses in detail) these sorts of reflective questions can provoke organic learning, most expeditiously in structures where there is an expectation that practitioners will make a more productive or creative difference through their work.

That improvement shows up in the purposefulness of the three structures we discussed above: the intention of the mentoring/preceptorship, the purpose of the project, and the evidence of the competent judgement. What counts as the purpose of these structures? Simply this: carrying forward the exercise to which these three reflective questions contribute. We proposed earlier that mentoring/preceptorship, projects, and competence judgements are three such larger structures that require, by their purposive nature, asking these sorts of reflective questions. But the fourth question, how practice can be improved, more acutely captures the purposefulness inherent in the structures we have discussed which make for the production of organic learning.

Why can we claim this? Note that these structures are normally experienced ‘holistically’ by workers. To reiterate, the cognitive, psychomotor, social and affective (or emotional) dimensions of human experience are all presented, phenomenologically, in an intertwined fashion in daily work life. Thus, these three workplace structures are ripe for organic learning because, in their logical requirement that workers-as-participants adopt a reflective stance to their work, they require the integration of various aspects of experience. It makes no sense to maintain a separation between the cognitive, the psychomotor, the social and the affective dimensions of these experiences, because that separability is artificial when the most intense experiences are, respectively:

- the shared intentionality of the mentor and the mentee
- the shared purpose of the project
- the localised judgement of evidence for various admixtures of workplace competence.

Organic learning now looks as follows.

Consider what is going on at Humus Consolidated. It advances organic workplace learning through these three structures since they encourage the workers involved to develop explicitly their (adult) learning. Such structures provide meaningful ways of asking reflective questions, such as the four simple ones we have now identified. In setting specific contexts, those structures effectively sift

the whole workplace experiences of workers and signal these to workers-as-participants, as potentially educative. These structures assert: 'If you want to learn from your workplace, there are some important experiences – what you have done – and what you state you intend to do – which you should be able to justify'. This 'wanting' is a claim on the emotions.

Emotional intelligence, we noted, is important in improving practice arising through workplace learning. Organic learning is partly but centrally constituted in the affective, not merely the cognitive (the rational 'content'), and further requires that the affective knowledge be socially located. How do the Humus scenarios show this?

Mentoring was portrayed as an intention to induct into a culture. Project team membership was by definition a shared purpose waiting to be attained. Integrative judgements of evidence of competence inevitably involve people and their workplace feelings. In all three scenarios, organic learning acknowledges workers' feelings, both personally and inter-personally. It is this that reveals what is integrable about organic learning. People learning at and through their daily work invest their desires and feelings in those experiences. Workplace structures which organicise these experiences (that is, deal in the 'whole person') necessarily deal with the affective domain, since it is the social, human scale of interaction at work which shapes daily work for most of us, both in its routine, and in its contingency.

Organic learning is perhaps most dramatically contrasted with training. One of the traditional ways to improve workplace learning and practice has been, and still is, training, yet training has traditionally not been concerned with the whole person, instead relying on narrow, behaviouristic skill acquisition. In a life-long learning policy environment, it comes as the poor relation to workplace learning, because it has skilled the hands, and perhaps the head, but never claimed the heart. Not surprisingly, educators have had a problem with training, but lately there has been some reconsideration. In the following section, some retrieval of training is attempted as an example of organic learning rather than as its poor relation.

2.13 Training

In the adult workplace, as it is being currently re-shaped by globalisation, many experientially-based learning structures are finding expression in training terms. Workers are often trained in and for mentoring programs, and project (and many other sorts of) management; competency-based training is a national policy fixation in many countries. Against the educator's traditional disdain for training, it will be argued that a richer notion, based on organic learning, and arising from practical performance at work, is available and can reclaim training as the core of any educational activity.

Training at its most behaviouristic does not require understanding. Animals can be trained with presumably minimal or no relevant understanding. The Gradgrindian schoolroom is little better, although some internalisation of moral norms (such as deference) probably results from rote learning. By contrast, tradi-

tional workplace-based training, such as an apprenticeship, does assume and require understanding in an articulable and job-related sense. But even here, there is an expectation that mastery will be demonstrated in the replication of the skills attained, and it is this minimal sense of understanding that educationalists disdain.

However, this disdain can be over-ridden if we reconsider training as the acquisition of skills, which admit, not just of replication, but also of anticipation. Anticipative action arises through training when we find ourselves doing something skilful, not just with understanding, but also with confidence. First, we are able to recognise a pattern and repeat action within that pattern. In Wittgensteinian terms (1963), we are demonstrating our rule-following capabilities with respect to the matter in hand.

But we are able to go on. We move beyond that rule-following, in trying to better the situation. The confidence to 'try' is thus an emergent aspect of our actions, made apparent in our extension of the pattern to new situations. We have made judgements to go on – the very 'doing-with-confidence' which is the enacting of the judgements. Of course the pattern we are skilled in recognising and replicating will frequently not fit the new situation. Workplace contingencies are frequently of this nature: much of what just crops up at work defies previous pattern-making, and then replicative action is an inadequate response.

Clearly, a different, richer sort of understanding is required, and the argument herein is that 'training' in the organic sense is central to this. In our skilful actions, we anticipate an outcome. As Winch (1995) states:

There is perhaps a core usage of the term 'training' which makes it more than just a variegated family resemblance concept like 'game', while remaining a concept with blurred boundaries. This core usage is connected with the idea of learning to do something in a confident way. The emphasis is more on action than knowledge on the one hand, and on an unhesitating and confident action rather than a hesitating and diffident one on the other.... It is simply to say... that training is more closely linked with the development of confident action than it is with knowledge and reflection.

(Winch 1995 p. 321)

Workplace learning is a more sophisticated environment than it was even a decade ago, and Winch's 'unhesitating and confident action' reflects the dynamic nature of much of the work now undertaken by, for example, managers and nurses.

Furthermore, structures have emerged which emphasise this more organically-based training, as we have seen. Throughout many institutional and organisational settings, workers are involved in mentoring and coaching programs, project management, professional or personal competency-based appraisals or performance assessment and so on. As well as the technical skill formation implicit in these structures, there is an emphasis on the cognitive and the affective and the social dimensions of work life, all intertwined in real issues

and challenges, and intended to bring about the acquisition of unhesitating and confident action. This ‘bringing about’ overtly deals in replicative skill acquisition (the technical) in ‘whole person’ situations of contingencies. Managers and nurses have in common the daily confrontation with contingencies, and they bring their technical skills to bear on these as necessary but insufficient ways of resolving contingent challenges.

Our argument, in retrieving training, is that, at the core of all educational activities (such as current workplace initiatives like mentoring, project management, and competency structures), and not beneath or beside them, is some element of skill acquisition, logically insufficiently described as replicative actions. These skill acquisitions are typically short-term – their achievement is imminent. Just as significant, their achievement is demonstrable in more confident practices – amongst these are organic learning (when it is structured); training (structured by definition) is another.

2.14 Just-in-Time Training

Just-In-Time Training is emerging as a generic term in many large organisations for locally tailored learning structures, often supported by intranet as much as the internet, where staff can access in their workplaces the resources they identify that they need to solve immediate skill or information queries. We define it as the negotiated provision, in corporate workplaces, of learner-generated immediate skill formation. It is increasingly popular with managers. For example, a manager, or a group of staff in general, may have a technology mentor. They negotiate ten one-hour sessions at each individual’s desktop computer to upgrade skills in some central aspects of that workplace, such as on-line learning, business systems, and similar intranet, or internet possibilities. What is in common is an authentic workplace as a location, individual workplace learning needs as the focus of the upskilling, and some discretion over the direction and structuring of the training, which often includes new software.

Just-in-Time Training is an example of what some scholars call situated learning (even perhaps amongst a community of practitioners). It fits with the adult learning ethos of self-direction, and, in its recognition of human feelings and the social nature of the workplace, exemplifies whole-person or organic learning.

What then is so illuminating about Just-in-Time Training for human intentionality in the workplace? We want to claim that a richer notion of know how emerges from thinking of training as anticipative action – what a worker is trying to do in anticipating a certain outcome – and the sort of thinking that is going on when that trying occurs.

2.15 Training as anticipative action

Anticipative action arises through training when we find ourselves doing something skilful, not just with understanding, but also, as Winch reminds us (see

above), with confidence. We know how to go on. This is of course the main point of know how; that is, of action by which we show our knowing how to proceed. We move beyond mere rule-following. The confidence to 'try' is thus an emergent aspect of our actions, made apparent in our extension of the pattern to new situations. We have made judgements to go on – the very doing-with-confidence which is the enacting of the judgements. Of course the pattern we are skilled in recognising and replicating will frequently not fit the new situation. Workplace contingencies are frequently of this nature: much of what just crops up at work defies previous pattern-making, and then replicative action is an inadequate response.

Just-in-Time Training is embedded in quite complex workplace actions. But the actions are anticipative – they are attempts to bring about practical outcomes. However, that complexity and that practicality are both generated and required by specific workplaces. Contextuality is crucial to action.

But how do the Just-in-Time Training actions of individual workers relate to the means and ends of the workplace itself? What is required is:

serious reconsideration of the hold that feedback, or means-end, judgements have on human reasoning.... Can a concept of 'feedforwardness' change the nature of accomplishing, as much as 'feedback' is expected to change the nature of attempting? In a truly reflexive relationship, this should be possible.

(Beckett 1996 p. 148)

Recall that earlier in this chapter (section 2.4) there was reference to the way that Argyris, drawing upon his earlier work (Argyris and Schön 1978), developed the notion of managers' leadership of learning in terms of their 'double-loop learning'. This propensity to ask critical questions of the assumptions that underlay what an organisation or an individual was doing has had considerable influence upon workplaces of all kinds. However, we argue that even double-loop learning is reactive, since it provokes this critique in a closed – that is to say, circular – environment. A more fundamental approach takes the reflexive possibilities of a double-loop and locates them in more active (less reactive) stance to work. Under double-loop learning, feedback is still the required outcome of the action, albeit a reflective and perhaps reconfigured outcome. In addition to the reflection on the way through this feedback, there may well be some reflexivity involving elements of the workplace and the people in it – some moving between the main players or structures. However, we are keen to move beyond the notion of a loop of any kind. Leaving feedback in favour of what we call 'feedforwarding' locates actions in new territory – the unknown (see Beckett 2000b for a non-philosophical account of this concept).

This unknown territory is the land of contingency, and it is marked, often, and increasingly in postmodernity, by an intensity of action – 'hot' action, as we outlined earlier. Contingency is, we claim, marked by 'feedforwarding'. Adult workers do not so much try to achieve something (since they do not know what it

is they are likely to find which will count as the success), as, instead and more aptly, rehearse what it would be like to accomplish a success, much as a painter acts in front of the canvas. Like the painter, we only know how successful an action has been once it has been created.

In workplaces of all kinds, we believe it is essential to emphasise the performative, whether these be termed competencies, skills, capabilities or capacities. It is in their intelligent ‘doing’ that people show (that is, display) their competence, skill, capacity or capability with respect to the matter in hand. At and through work of all kind, whether paid or unpaid, we are confronted by new circumstances, only some of which are amenable to replicative, planned, predicted and feedback-driven actions.

We propose that the term ‘anticipative action’ expresses the ways that human purposes are played out in creation or performance of accomplishment. What counts as an accomplishment is only known when it is efficacious. Acting anticipatively rehearses, in a fairly open-ended way, what might contribute to that accomplishment. But that rehearsal slides into the Real Thing once it looks successful. Anticipative action is the term, then, for this transition in one episode of time from doing something creatively in resolution of a contingency, to the accomplishment of that resolution and knowing it to be, in that accomplishment, a successful resolution. Koestler (1964) put this well when he referred to the ‘Aha’ experience: a good joke requires no explanation, as it dawns upon you – or not at all. Thus, anticipative action is forward-looking, in an overtly creative way. Feedback mechanisms *report attempts* (‘tryings’); by contrast, feedforwarding *rehearses accomplishments*. It is the reflexivity in actions between both of these which constitute practices, and which accounts for both the routine and the contingent in human activity. We have noted that workplace practices are a blend of rule-following (reading the patterns) and confident extrapolation (into the new situation), and in this, both the routine and the contingent are present. However, replication and reactivity and the attempts to ‘try’ when faced with the contingent situation, are inadequate.

Once we focus on how contingent situations are handled, a conceptualisation of the proactivity of much work practice – including organic learning, and training – is available. Contingency is handled by, for example, managers and nurses, through feedforwarding, that is, by acting anticipatively, and thereby raising the prospect of modifying not just the practical means towards an end, but of modifying the end itself.

There is thus a reflexivity between the ‘knowing how’ a manager or a nurse can draw upon at work (minute by minute, hour by hour), and the ‘knowing why’ they are drawn to (also by the minute, or by the hour). Both the ‘know how’ and the ‘know why’ are up for constant renegotiation, as anticipatively, actions unfold in the face of contingencies.

Training, as a structure for organic learning, can provide confident skill acquisition in situations where the confidence is warranted. It is not a recipe for mindless optimism about success, a ‘one size fits all’ model of learning, as it was in its behaviourist past. Rather, it is a careful crafting of the situation to the

outcomes, while encouraging the reflexivity of ends and means in the light of the confident exercise of that skill. We believe Just-in-Time Training schemes provide for this. They seem to be marked by negotiability of ends and means, and they assume embodied learners in real-life situations. There is often an IT component, and here one must be careful. Learning which is IT-driven (where the learner is disembodied – that is, alone with the computer), will produce skilled technicians. Real worksites, real problems and real peers are required to produce reflective practitioners. IT components in training would need, on this analysis, to be subordinate to learning through social collaboration at and for the workplace, that is, from each other, face-to-face, and even one-to-one.

It is important to acknowledge that there is emerging evidence of medical and nursing ‘care’ becoming available through information and communication technology (ICT), without the embodied presence of a practitioner. Whether or not this is still ‘care’, or some more general consultant relationship is an open question. Given the risks of self-diagnosis in clinical situations, it seems to raise ethical issues beyond those we are dealing with here.

2.16 Know how and knowing how

Training in this richer sense identified above is embedded in complex workplace actions. But, as we have seen, the actions are anticipative – they are attempts to bring about practical outcomes. However, that complexity and that practicality are both generated and required by specific workplaces. Contextuality is crucial to action. In particular workplaces, we are expected to ‘know how’ to get it right. In fact arriving at ‘knowing how’ is a very powerful form of workplace learning.

We have a term in workplaces for this sort of outcome. Instead of talking about the achievement of ‘know how’, we often talk about ‘appropriateness’. For mentoring, the ‘way we do things here’ is just that – the ‘appropriate’. For project teams, the way forward is the ‘appropriate’ way. In the ascription of competence, ‘appropriate’ evidence is often specified. In all cases of practical judgement, decisions about the ‘appropriate’ course of action are expected, and there is a strong Aristotelian flavour to this (see chapter 3). *Phronesis*, as we explain later, is Aristotle’s term for the practical wisdom which makes thus-and-so the ‘right’ (= appropriate) action in a specific situation, derived from experiences and the reflexive relationship of means and ends. For the moment, our ‘knowing how’ can be taken as the practical wisdom required by and evident in particular workplaces, when things go well, that is ‘appropriately’.

Thus we can say that organic learning is shown in a focus on what is regarded in any particular situation as the ‘right’ (or ‘appropriate’) thing to do. The context, or location, will set up what that focus will look like. The expression of training as a structure for organic learning will provide confident skill acquisition in settings where the confidence is warranted.

Better practice is thus anticipative action, but this is genuine action. This is evident in workplace practices, where we are urged to ‘try’ to act in such and such a way. This trying does not, however, remain entrenched in a reactive

'feedback' relationship – 'single-loop learning' as Argyris and Schön (1978) famously put it, where the end modifies the means. In the practical workplace, the imperative is to try to improve things, to 'have a go'. The 'double-loop learning' is a device for more creative trying. But we argue that questions like 'Why did we do this...?', 'Let's try this....', 'What if....?' and so on, are more aptly rehearsals of accomplishments – they anticipate 'appropriateness'. More specifically, these questions stipulate purposes, but leave open a variety of ways of accomplishing them. They 'feed forward' because they invite the possibility that their purposes may be changed in the act of their achievement. By contrast, a 'feedback' loop reports on attempts to achieve a purpose, and is found in protocols for nursing drugs administration and operative procedures, in the more basic 'quality' systems still found in some organisations, and in low-level competence structures where behaviouristic check listing is expected to be sufficient in making plain the mysteries of many workplace practices.

Anticipative action contributes to organic learning because it emphasises the nature of intentional action in real work contexts: we 'try'; that is, we strive to do better. In improving our practice, then, workplace thinking and reasoning will include 'emotional intelligence' (the significance of our feelings in actions). But it will also include the social – particular purposes and ideals judged by our peers as 'appropriate' in the outcomes they achieve. This richer perspective on 'knowing-how' develops organic learning in particular workplaces, through the daily mixture of the routine and the contingent. We believe that 'know how' is a vital way into more rigorous and creative thinking about practice in particular workplaces.

2.17 Looking ahead

When workplace learning arrives at the centre of the educational stage, it will have done so partly because human experiences will have been recognised as 'practical' in the richer sense outlined above. This analysis has tried to show that organic learning is a manifestation of what it is to be human at work (in that cognitive, psychomotor, social and affective dimensions are all present in the physicality of being at work). Furthermore we have shown with three scenarios that workplaces can develop, and indeed are developing, structures which advance 'whole person', or organic, capabilities for purposeful action. 'Anticipative action', which extends 'knowing how' (informed by Aristotle), shows great promise in this regard. Workplace learning takes this extension seriously, because it shows the significance of practical reasoning (see chapter 3). From this new interest in practical reasoning, there are inferences towards a new 'paradigm' of knowledge for the next century (see chapter 4). Central to this is a re-invigoration of training – organic learning, if we think of skills more holistically – and, as we explore in the next chapter, know how as expressed and developed in practical judgements.

3 Practical judgement

The basis of embodied, situated practice

3.1 Introduction

This chapter rounds out the concept of know how by building on organic learning in more considered ways; in particular, by showing that human judgement is central to practice in postmodernity.

What do humans rely upon to make sense of the decisions they make every day? Some have proposed that something intuitive or tacit about consciousness is just this entity. We take the view here that the notions of practical consciousness and tacit knowledge, including intuition, are drawing attention to immensely significant human experiences, but that they do not de-mystify those experiences. On the contrary, to claim ‘consciousness’ or ‘intuition’ of something which is embodied in activities is a Cartesian response, reinforcing dualism (see Hager and Beckett 1998; Beckett and Hager 2000) which preserves the mystery of the intelligently practical act. Furthermore, such Cartesian responses can be found in the virulent ‘competencies’ debate, where much energy has been given to the supposed logical and empirical impossibility of holistic or integrated competencies. This chapter deals with all these issues.

Know how is exercised when people intend to make a difference in what they are doing at work and in their lives in general. This is under-recognised by educationalists. Giddens raises the main issue well, when he states (1979 p. 59), ‘action philosophy ... has displayed virtually no interest in the unintended consequences of intentional conduct’. This chapter advances an analysis of consequential action without relying on the mystification of inarticulable intentions. It takes those intentions to show up in practical reasoning, as displayed in ‘anticipative action’. It helps our understanding of know how by assuming an intentionality which human experience displays – what we find ourselves doing, or undergoing – not the sort of intentionality based on forming an intention to act (see Beckett 1996).

In the daily flux of work, for practitioners everywhere, through judgements, humans are making and re-making their experiences (see Eraut 1994), that is, we find ourselves acting intentionally (in doing X), rather than acting with an intention (to do X). It is the former meaning that this chapter is developing, and indeed this is the more common experience: we find ourselves doing certain

things, in certain ways, and we find that reflection on this activity assists us to do better. This is what builds up into ‘know how’, or as we often say, ‘common sense’. Of course what is actually claimed as ‘common-sensical’ we should regard sceptically (much as claims to ‘intuition’ or a ‘sixth sense’ are to be regarded), but here our interest is in the phenomenon itself.

To help in this systematic curiosity over the nature of practical knowledge, it is timely to remind ourselves of the contribution from Aristotle, who linked it with the attainment of wisdom (in his *phronesis*: see Beckett 1995, 1996). Experiences in workplaces, like those in life in general, are purposeful. The very quest for productivity in this era of turbo-charged capitalism pushes workers towards missions, goals, outcomes, audits and so on, and these can be criticised in a variety of ways (see Garrick 1998). Educators quite rightly query how this ‘performativity’ has changed schools and teaching – workplaces for large numbers of the population (Blake *et al.* 1998). Leaving those issues for the next chapter, we want to take ‘know how’ further – into the ‘knowing why’ of practice.

Aristotle’s *phronesis* was never intended to characterise mere ‘know how’, because for him, and for our analysis herein, human experiences are likely to produce practical wisdom if they are directed to some ulterior purpose. *Why* (that is, to what ends) are they being undertaken? Thus, purposeful practice at work requires an analysis of the actions we find ourselves undertaking. These ‘hot’ actions, evident minute-by-minute across the working day, constitute the intentional embodiment of decisions and judgements we make at work. Is there a way to make these adult workplace experiences more explicit? In chapter 2, we saw, for example, how managers’ and nurses’ ‘know how’ connects readily with *phronesis* (‘practical wisdom’). Practical workplace learning, in many contexts, assumes and expects the dissolution of the traditional (that is to say, ‘modernist’) mind/body Cartesian world with its privileging of the ‘pure’ mind. It is the person, not merely the mind, which is significant, and persons are inevitably embodied. In the light of this ‘postmodern’ conceptual shift, the new material technologies in education, of which ‘on-line’ delivery is the most prominent, look a little arcane. More ominously, to the extent that these new technologies discount teaching in favour of the ‘delivery’ of learning, they impart an instrumentalism which enshrines the old Cartesian dualism between mental labour (thinking) and manual labour (doing).

In contrast to these old dualist assumptions, this chapter will show how closer attention to purposeful practical judgements provides a way to build up learning from embodied experiences. It draws on the previous chapter, especially in developing the idea of ‘whole person’, or organic workplace learning.

3.2 Practical judgement and the whole person

This chapter develops the idea that all workers – and indeed all adults in their lives in general, both now and for the foreseeable future – as subjects of learning potential are best regarded as integrated thinking and doing beings who exercise all manner of judgements during the working day – these are their practices.

Following from these states of being, there are new, powerful and experientially authentic knowledge claims made of workers and of work which challenge the formality of traditional university-based education (see Hager 2000b).

Attention to learning from informal experience will come as no surprise for any of us who are parents, or who for some time have been involved in what is typically the work of professionals, such as lawyers, teachers, medicos and nurses. This is because such activities as these deal in human values and actions with consequences for which one is held responsible, such as child-rearing, technical and clinical diagnoses, litigation and so on. All these activities require practical judgement, that is, decisions about what to do next to bring about the most efficacious result – the ‘practical’, or appropriate, contextually-sensitive solution to whatever is the issue or problem.

These judgements have not traditionally entered much into the theory-driven acquisition of a formal education, but now universities are being forced to re-think that tradition (Hager and Beckett 1998).

In fact, we claim that the ‘contextually-sensitive solution’ requires its expression in creative work. A vision unrealised is a waste of time: it is unintegrated into daily corporate life. It is in being ‘worked upon’ (Schön says (1987 chapter 1 passim): in the ‘artistry of performance’) that workplace learning emerges. What psychologists call ‘situated learning’ is the most powerful workplace learning, because humans are immersed in their daily activities, from which they are especially susceptible to learning. Such immersion involves the totality (the ‘wholeness’) of experience, which, as we noted at the outset, is central to such learning: understanding, feelings, and with whom this occurs – the sociality of the workplace – are each intertwined therein. In chapter 2, we called this organic learning.

3.3 Three practitioners at work

Consider these interviews with three practising professionals (authentic material, taken from Beckett and Hager 2000). As they illustrate, in their judgements, individuals ‘attend’ (are consciously aware of) their total perceptions of their workplace: for them the cognitive (reason-based), affective (feelings) and conative (wants, hopes) aspects of these perceptions are only artificially separable.

3.3.1 The ambulance officer

Taking the nurse-turned-ambulance officer as an example, we find in the following descriptions a series of ‘decisions’ (i.e. judgements) which are saturated with reasons, feelings and wants. These are intertwined in purposes which are expressed as the actions unfold. Moreover, in the first paragraph, the respondent’s own feelings are clearly not uppermost in her reporting – her ambulance-officer partner, and the family, are significant here. Later on, when she is asked about that, she is able to articulate three-stage growth in how her experiences have related to her judgements.

RESPONDENT: And the little baby certainly wasn't breathing. The first decision is – do you start resuscitation or not? And there's a whole set of rules that we have about when you do and when you don't start resuscitation. So I made the decision to start.... My partner was more frazzled by the situation than I was. He and I had an interesting relationship at that time because he was in a superior position, theoretically, but in practice and knowledge I was ahead of him. So that made it awkward, and he knew that. He felt very uncomfortable about it, and I did too – because of the way he treated me because of that. So the relationship was on the face of it harmonious, but it had some undercurrents that made things difficult. And this resuscitation brought those out because I'm used to resuscitating children, and so I just went into that role. And he wasn't, and he didn't. So we resuscitated the little baby, and we actually got an output, which means that we got some heart rhythm back – which in these circumstances was very unusual and quite unexpected – well, not unexpected but unusual. And so another crew arrived, which was the intensive care crew, and so they helped us to continue to resuscitate. Eventually we had to stop.

So I suppose decisions that I made were things like which equipment to use and when; how to help my partner through it, because he obviously wasn't coping very well with it. He had little kiddies the same age, so apart from the conflict he and I had, I could see it was hard for him anyway. Then dealing with the family obviously was difficult. It is very difficult in the ambulance world because they actively encourage the family to stay around for resuscitation, whereas in nursing they are not as progressive in that way. So it is more difficult doing resuscitation with the family watching than it is in a hospital where you put them out the door and when it's all over you bring them in again. So during the resuscitation, I had to decide when to speak to them – and when you know, when you're pretty sure that you're not going to get the little baby back – you give them a warning before you stop. And so you have to decide when to do that and how to phrase it. And there's a decision that we've made collectively as a group of officers about whether to stop the resuscitation or whether to keep it going or not.

INTERVIEWER: You do that collectively?

RESPONDENT: Yes. Once it's all finished, you talk to the family about it. And give them some time with the baby. And there's a whole set of protocols about where you take the baby's body and call the police.

INTERVIEWER: So the police arrive while you're there?

RESPONDENT: Yes they did, and that's routine.... It's difficult dealing with the death of children obviously. But I've developed some techniques for dealing with that.

INTERVIEWER: How have you done that?

RESPONDENT: Through exposure, I suppose, and exploring how my feelings play a part, particularly in my decisions, because after I've been in a situation where I make judgements about things, or just my everyday job – this is from quite a few years ago I started doing this. Looking at what role my

emotions played in it, and I found that the more dissatisfied with how I performed I was, the more my emotions had played a less than constructive part in the job. So I don't believe you can keep your emotions right out of it or have your emotions controlling the situation. And I think you need to have a balance somewhere in between, and so I'm getting to the point – and I'm practising it – I don't say I do it that well – actually I like to think I do it pretty well. I find it easy to do a job now and keep my emotions right out of it, and think about it later on. And I think that's a step up for me from having my emotions play a part and affect my judgements. And that's a step up from not having your emotions in there at all.

So now I'm getting to the point where I like to be able to feel my emotions at the time, and still have them not impact upon the appropriate judgements and the decisions that I make – and that's complex.

Notice that this is a long way from support for anything like tacit knowledge (inarticulate, ineffable arcana) in judgement, but it does acknowledge a rich array of resort to reasons, feelings and wants, in the 'hot action' of the scenario outlined.

3.3.2 The school principal

If the action is cooler (where there is more time for reflection), does tacit knowledge gain a toehold? In the following dialogue, it initially appears – as instinct – but then it is substantially qualified by growth in experience, with affective ('feelings') factors acknowledged, but corralled. The interviewee is principal of a large private school.

INTERVIEWER: ...Where you get resistance to decisions – perhaps with staffing implications – that people wouldn't be comfortable with, or parents not comfortable with, and people land on your doorstep with a gripe, what do you bring to the resolution of these situations?

RESPONDENT: I bring to it an instinct – an instinctive feel for how it fits within our culture and how it fits within our future. Now of course I don't think that I'm conceited because I actually argue with myself all the time but obviously I think my instinct is right....

INTERVIEWER: And you'd have a series of these decisions across several days or across the working year, which could be routine for you, because they are utterly consistent with the way in which you read the situation, or read the culture.

RESPONDENT: Yes.

INTERVIEWER: Where the organisation has faced external constraints such as the planning difficulties I read about with your extensions and development – that kind of thing – when you have to make judgements of an overtly political nature involving the media, the local press and so on, what do you bring to those sorts of judgements?

RESPONDENT: Well, you already know what your own plan is in terms of whether you seek advice about what you're prepared to do. What is right to do – what is ethical and appropriate. And you may have noticed if you are local that I made a decision very early on that I wasn't going to talk to the press. So that was the end of it. But it has been in the press with the comment that the principal hasn't returned a call or wasn't available. That's fine.... You have to know that what you're doing for your own organisation is right in the first place. You have to be very sure about that....

INTERVIEWER: I wanted to build on the idea of what I take to be reliance on intuition.

RESPONDENT: Right. Huge. Huge.

INTERVIEWER: So when I say, and you say, 'the reading of the culture', a lot of that is intuitionistic?

RESPONDENT: And a build up of that experience. If you'd interviewed me say six or seven years ago – different, different totally.

INTERVIEWER: But can we formalise that more in knowledge-based terms so that you can say, 'Look, I'm the principal and I've got this depth of experience. It's different from when I started the job. I'm able to say things just by rule of thumb. I can exercise judgements that I know are going to be more or less effective'.

RESPONDENT: Oh, yes.

INTERVIEWER: So even against the odds you might pull something off with the council, staff, or people within the community because you backed a hunch that you could really formalise this knowledge.

RESPONDENT: Oh, I do that quite a bit and I'm always pleased when it's something that is my idea, that a lot of people didn't want at the time. We just sort of say, 'OK well we'll try it', and the people find they actually do like it. However, we also try and work in a team way on a whole variety of decisions. But another thing I'd say, I can't remember in my ten years working with the school council (and their culture has changed too and some of that would be my influence...), I can't remember anything that I've asked for that doesn't happen....

INTERVIEWER: Now, based on that, I'm picking up the feeling that it's important for you that a challenging judgement is something that shouldn't really arise in an ad hoc or unforeseen fashion. It's very important to have it thought through, deliberated upon, well-resourced, justified and so on. So I'm wondering if in the daily course of your work there is very much reliance on the emotions, feelings.

RESPONDENT: What sorts of feelings?

INTERVIEWER: Trusting them.

RESPONDENT: When it comes to trusting them?

INTERVIEWER: Yes, instinct is fine, but this sort of warmer, fuzzier idea of feelings.

RESPONDENT: No, I don't think so – not if it's got to be cool objective thinking.... I think I'm being utterly objective when I can disassociate myself

from feelings, friendships, and other alliances and say, 'Look at the big picture, look at this, look at that.' So no, I don't think so.

INTERVIEWER: So if somebody walked in to see you and they had a particular problem and they dissolved into a flood of tears – would you be less likely to modify the point of view that you had?

RESPONDENT: I don't know. I'd – depending on who it was – I'd put my arm around them and want to solve their personal problem first and then deal with the rest of it.... Two other things, unrelated but maybe not, I love it when someone walks through my door and says, 'I've done something terrible: I've got the most dreadful problem you can imagine', because I instinctively know it's going to be the most easy thing to solve of the lot.

But secondly, if someone – as will happen today – walks through my door for an interview – then when I'm choosing people for interview to come and work here, as you know from research, the CV goes out the window the minute they come through the door and instinct takes over, but also a little bit of that is feelings. And even though they may not fit your criteria, they're some of the most critical judgements I ever make for the school – picking the right people.... It's my principal job – getting the right people into this school.

What seems to be emerging here is a distinction between, first, an initial situation where it is apparent that a judgement will need to be made; and, second, the subsequent situation where the actual judgment is made. These two practitioners distinguished between a cluster of reasons, feelings and wants relevant to the framing of the initial situation, on the one hand, and, on the other, and contiguously, simple intuitions or 'instincts'. This conscious awareness of reliance on a much more specific range of experiences clearly contributes to the framing of the judgements themselves.

3.3.3 The psychiatrist

In this third dialogue, the action is midway between the heat of the emergency resuscitation and the cool of the private school: the interviewee is a psychiatrist. As with the previous interviewees, she is able to distinguish the immediacy of the moment from other considerations, but nonetheless, amongst the action, her judgements are still an intertwining of reasons, feelings and wants. What is especially notable here is the adroit inclusion of wider contextually-sensitive matters. She makes socio-political considerations part of her judgements which determine the clinical response to the medical diagnosis.

INTERVIEWER: When you need to make a decision, how do you decide what you're going to do? I have a few examples. Do you decide based on intuition – perhaps a feeling? Do you have an ethical response? Is it a cognitive principle? Or is it possibly a blend?

RESPONDENT: It's obviously a blend of all three.... The first information I

have is theoretical knowledge of the situation – of someone who has a psychotic illness – I know a lot about that. I know what is optimal, and I know what is necessary. Now what I actually do has to be based on an ethical system as well, and it has to be based on the legal implications and responsibility in terms of the care. So there are many factors in this. But the major thing that directs what you do in this clinic – the clinic in which I work – is the facilities that we actually have for carrying out what is necessary. And so it's a blend of all those things – the practicality of it, the needs of the patient in the given situation. Now if you wish to speak optimally for the young man who was in withdrawal, the optimal situation would be for him to be placed in reasonably long-term care – and quickly treated medically, withdrawn from his drugs, and then put into a program which would protect him to a degree from his capacity to use drugs further. So he couldn't in fact get them, and would be given long-term rehabilitation. Now none of these things exist at the moment. So these are the things that you have to weigh up, but what you end up with is a totally unsatisfactory arrangement where he was allowed to go – allowed to leave, and then overdosed shortly afterwards....

INTERVIEWER: So you're saying that your judgements are curtailed by what's available.

RESPONDENT: What we can actually do, what positions we reach, are based on the practical availability of the services in the end.

INTERVIEWER: When you're presented with one of these situations, do you find yourself trying to fit this particular instance into a familiar pattern, or sometimes do you find you are trying to establish a new pattern to meet the specific instance?

RESPONDENT: There's a familiarity in the cases that are presented to us. They're all very much the same in many ways due by the nature of the illness these people suffer. There is familiarity at that level. The differences occur in terms of the social milieu from which the people come. Because we are accepting the most handicapped people, from the poorest level of society, there is also familiarity of the patterns because these people are all on welfare. They're all unable to work. The vast majority of them have got into the hands of people involved in drug use. So all these situations are becoming familiar and have become quite familiar over the last five years. But this is quite different to, say, ten years ago.

INTERVIEWER: Just thinking of the young man – the way you described how you coped with his situation. Do you think that was a spontaneous response? The way you described it, it was – it was very unfamiliar and you really had to come up with some 'out of left field' response.

RESPONDENT: Yes, that's unusual because the drug services have recently been cut back from that area. Once upon a time there used to be services for acute withdrawal patients – to help people with drug addiction. And now they don't exist. They only exist if people are capable of waiting, and capable of fulfilling all these conditions which the drug and alcohol services

put down. Which in fact keep the people away from care because they can't fulfil the requirements. They can't wait till 5 o'clock and ring up every day to check whether there is a place or a bed to use for them in a particular institution. They don't have the money. They don't have the telephone. They don't have the capacity to do it....

INTERVIEWER: When you decided to give him those drugs, and you were thinking about it – did you find yourself thinking – if I do this, this might happen, or if I do this, this will? Is there a certain scenario that's going on in your head?

RESPONDENT: A definite scenario because we knew he came in specifically to get benz. We knew that if we didn't give the benz, he'd be in worse withdrawal. We knew that it was illegal in crisis to prescribe the amount of benz that he was in fact taking. So we couldn't even prescribe a sufficient dose to cover his withdrawal. So we knew that by giving him a dose supply he'd take the lot at once, and probably go out and go to another doctor and get more, or steal them, or buy them in the street. We knew that would happen and we weren't surprised when we heard he had a major drug overdose shortly after. [Pause]

There is spontaneity insofar as you've seen most situations before and you're familiar with them and you know what the procedures are and the way to approach. Given unusual scenarios, like the situation with this drug victim, there's not much that we actually spontaneously do because we always discuss it. So that, for example, I had long discussions with another care worker at the time the young man presented. So it's very rarely that we do anything without considerable talk. So it's not spontaneous. It's usually mutually decided and agreed upon, and if there's any doubt about the ethical nature of the problem, or you're really concerned, you go to a more senior consultant, and discuss the situation before you actually act.... There's not a lot of responding to the person and the problem. In fact, that immediate response is what you have to make a lot of distance from. You really have to take into account lots of factors. The more factors you know, the more you take into account.

INTERVIEWER: So you don't believe that you act spontaneously – it's very much a calculated thought, based on your experience, most of the time.

RESPONDENT: Yes. With people who are working in a field – very specialised fields for a very long period [of] time. As I've had thirty-five years of experience, there's not a lot that's new. It's just variation and many of the responses that I would give now are thoroughly learned responses which have become a part of me. So that I don't have to think the way someone who's greeting the situation for the first time has to think. If you watch people coming into this and observing what we're doing, they're quite nonplussed. They're quite confused, disordered, distressed by it all because they tend to be more reactive to the patient who is often in extreme distress. But once you've been doing it for a long time you tend to distance yourself from that. You don't get involved at the distress level. So you're not reacting.

Our three dialogues have dealt centrally with five characteristics of life experience which we believe give an epistemology of practice great significance for learning, namely:

- 1 its contingency: acts of decision-making are overtly part of the informal, non-routine and capricious nature of daily work ('hot – and cooler – action')
- 2 its practicality: the need to solve problems efficaciously (the Aristotelian 'good' result) is paramount
- 3 its process-orientation: Schönian reflection-on-action has generated expectations that practitioners will learn from their practices
- 4 its particularity: contextually-sensitive outcomes are needed, not solutions to universal problems
- 5 its organicism: judgements are made up of reasons, feelings and wants; in their potential for learning they contribute as 'whole person' experiences.

How do our three interviews display these characteristics? The interview data show that we can claim that growth in capacity to make judgements occurs because our practitioners' experiences were organised around:

- 1 an ability to separate the immediate need to make a judgement from the following stage of the actualisation of that judgement
- 2 an ability to 'read' their cognitive, affective and conative considerations in the light of that separability (such considerations will be factored in differently for each stage)
- 3 the de-centring of the practitioner's sense of identity, at least immediately.

Thus an epistemology of practice which develops how adults learn at work and from life experiences seems to require a growing (and growth-oriented) sophistication in ability in respect of the three points above. Judgements are made in the midst of growing abilities – driven by experience – to discriminate within each of the three points.

Now this ability to discriminate is frequently taken to be one of the hallmarks of the formally educated person. We believe that in daily work life, where there are requirements for judgements, a sophisticated epistemology of practice will generate the ability to articulate the subtle discriminations required by the demands of the job. That is, in informal contexts, powerful learning can result from judgements made in the exercise of practical know how.

3.4 One shared workplace

However, it might be objected that a picture drawn from three individual practitioners, who clearly fit a professional profile, is too neat. After all, society expects autonomy and discretion from powerful occupational elites – and an ability to learn from that comparative labour market advantage. Accordingly, can we look

for the development of know how through judgements by investigating a shared workplace, with workers who do not on any criterion meet the elite standards of a profession? And in doing so, can we advance the conceptualisation of learning so that it incorporates insights from postmodernity in its very workplace-based focus?

Who are the workers in an aged care facility? The staffing profile is shaped not only by nursing, but also by health care work of widening variety: physio- and other therapies; welfare and other agencies; and a growing number of 'patient care attendants', 'nursing assistants', and the like. Various stages of residents' medical dependency necessitate twenty-four hour care, so shift work is a feature, as is the part-time, predominantly female workforce. Little formal education or training is available for most of this part-time female workforce. Indeed, most of those who are not nurses or allied health professionals have little formal qualifications, but may have years of experience. Low levels of literacy are common. Yet these women who work, Cinderella-like, 'downstairs' are now expected to adapt to local and national versions of new, higher community expectations.

In particular, the research we are drawing on sought to show how these staff could improve the management of residents with dementia at Pleasantville (a pseudonym), an aged care facility. The approach to this was to structure the sharing of staff experiences in addressing the 'challenging behaviours' of residents with dementia, and to look to construct these experiences as learning. This is difficult when staff employment patterns (shifts and other responsibilities) engage with individual resident behaviour patterns in many different times and ways, and when staff come from many different bases of perception and prior learning.

Seven to ten staff in the dementia unit at Pleasantville, comprising nurses and patient care attendants (all women) met fortnightly over two months. Staff were paired, and each staff member met her partner to swap experiences in the preceding few days, and what was done to address these at the times they arose. Each pair of staff collected brief notes about such incidents and made a verbal report each fortnight with the unit staff as a team. Discussions across the group were facilitated, were transcribed, and some implications drawn for the development of know how.

We begin with an example of one shared discussion, to launch the general points which emerge.

3.4.1 Unearthing experiences

Pleasantville: Meeting

Staff first exchanged their experiences with residents in the previous fortnight, for example:

Resident B has been hospitalised with a broken femur, and now drinking via a syringe, and with family support at meal times, yet not now on intravenous drips.

Resident C back from hospital 30 mins ago – unstable – balance problems, and some aggression. Staff astonished to see her returned so soon – medical conditions still present.

Resident R has recently gone to bed fully dressed, and required full change of clothes this morning. Using a lip-plate for lunch. Wandering the unit, but actively: moves furniture, ‘dusts’. Better at night now, and heads straight for toilet in the morning, so today’s incontinence is less typical. Recognition is quite good: on her hairdresser return trip, she saw the door. General agreement that patterning R’s days is difficult.

Resident M Medical advice was to ‘modify’ the caring, and change the medication, since M is still weepy, even howling. Does M like being a resident? She can shower. Is reluctant to come in the door (can see reflection?). General puzzling: is there a lot of frustrated communication there? Is a firmer line called for?

Certain general practical points about management and care emerged from this (and similar) discussions:

- 1 Changes in staffing, and family visits (etc) are significant for these residents: they may see these as ‘interference’ with their lives – there is an ownership tension always present for them.
- 2 It is essential to have a wide range and repertoire of responses to engage ‘challenging behaviours’ – staff must constantly try out things, since across 24 hours and several staff, a resident in this unit may vary in behaviour often dramatically.
- 3 Hospitalisation turns residents into patients. Off-site, they tend to become medical diagnoses, and then are liable to the ‘throughput’ priorities of a hospital, arriving back at Pleasantville prematurely, and disoriented, and without the prospect of high-level medical care continuing.
- 4 Structures and patterns are essential for these residents, but they frequently struggle to re-invent these.

In a guided discussion, staff were then asked the basic intentional question: What do you mainly find yourself doing with residents who demonstrate challenging behaviours? Three stances to this experience were proffered for consideration: showing, guessing and trying.

Responses from the staff group showed unanimous support for the notion of ‘trying’ as the most apt characterisation of what staff find themselves doing. Sometimes this is immediate (‘I think she should have a spoon’), and sometimes a little later (‘I rang up her family and then I tried to explain to Resident J about her son on holidays in Sydney’).

Staff also gave support to the notion of ‘guessing’ (‘What on earth is going on?’) especially since this often found them looking for other evidence (e.g. a urine smell). In one luminous example, a resident who persistently threw food

and was a general and perplexing challenge for staff was, through a combination of trying and guessing, finally understood as re-enacting the feeding of chickens in her farmyard – part of her traditional maternal and domestic work.

This indicates that ‘showing’ is the least apt characterisation of what staff find themselves doing, largely because it requires the most reflection. Staff were well aware that often there is no time for this reflection.

On the next occasion staff met, they were asked, ‘How do you approach “trying”?’ Discussion produced agreement that staff ‘talk on their [residents] level... which is hard until you get to know residents’, and they talk in such a way that encourages residents to respond; for example, saying, ‘I feel good today; you look good today,’ to start them off, rather than asking, ‘How are you?’ Staff are not likely to get at a resident’s condition directly: they recognise there’s a telling and re-telling of stories, so they look for signs of a ‘new story’ emerging. The stories are indications of residents’ realities – essential for empathetic staff in dementia units to come to understand. These stories centred on validation of realities, and that it is therefore essential for staff to communicate with residents by reinforcement and affirmation. Staff acknowledged they needed to try to ascertain what challenging behaviours represented as roles for residents. As we noted, the food-throwing is a retrieval by one resident of her role of chicken-feeder back on the family farm in decades long past.

So staff realised that the validation of these roles required very careful communication. The usual social expectations implicit in questions like ‘How are you?’ and ‘Remember ...?’, when addressed to dementia sufferers, often produce anxiety and induce vulnerability (‘There must a right answer but I can’t recall it’). ‘What’ and ‘When’ questions, by contrast, invite some information which assists in validation of the realities displayed in challenging behaviours. The stories – the narratives – are pieced together as the staff share what they have gleaned from these highly skilful interactions with residents.

3.4.2 Practical judgements from a postmodern perspective

These Pleasantville staff are able to articulate a process of workplace learning which we can recognise as shaped by epistemological considerations redolent of postmodernism, as identified by Burbules (1995), particularly his identification of *diversity*, *power* and *discourse* as markers of postmodernity. Dementia care, as we saw, is shaped by ‘challenging behaviours’, yet beyond a professional general duty of care, these staff members do not belong to a profession which has available to it an ideology of care – a meta-narrative. There are, however, several markers we can identify in staff discourse which fit easily with Burbules’ markers of postmodernity.

In particular, residents display *diversity* of behaviour as a constituent part of dementia. There are no two similar ways of expressing dementia in detail (although there are broad ‘stages’), since the degeneration of the mind will show up in very particular actions or inactions. Because of this particularity, dementia tends to produce regressive behaviour of increasingly elusive explanation.

Nonetheless, staff in such care settings – within a *power* structure inevitably shaped by legal, organisational, medical and ethical norms – are clearly cognisant of the potential for appropriate *discourse* in managing residents more sensitively.

The significance of discourse goes further. Staff are able to share their learnings of what works with individual residents' 'challenging behaviours' (or 'hot action') within discourses. Three discourses suggest themselves: *chronological* (times of the day or night, events like visits and meals); *medical* (dosages, clinical matters, hospitals); and *psychosociological* (relationships with staff, families and each other).

Here, staff in our meetings were able to piece together pattern-making and re-making, 'reading' a critical situation or challenging behaviour with their colleagues, such that it then can be better understood. A diversity of practical responses and reflective explanations was proffered and appreciated by the group. This can be regarded as evidence for Dewey's argument (in Garrison 1999) that the purposes of both practical action and judgement emerge as a creative effort to overcome what Dewey in general calls a 'disrupted context' – and a dementia unit is essentially disruptable. These staff, it will be noted, engage in practical reasoning in attempts to shape stability within the unit. This is fundamentally an Aristotelian epistemology, since it is concerned with the fluidity of purposes with respect to a fluidity of means to achieve those purposes. Neither ends nor means are fixed in a linear fashion. Again, following Aristotle, we notice in the fieldwork findings a respect in the workplace for practical (as opposed to theoretical) action and for the embodied subject. As history tells us, this confronts much of Western education, with its traditional focus on Platonic epistemology and on Cartesian ontology, both of which emphasise theory over practice and the mind over the body; even more fundamentally, they emphasise linear logic with rigorous truth conditions (validity being the test of an argument). In the workplace, however, practical logic – aimed at what will work by drawing laterally on experiences – prevails.

The fieldwork represented by Pleasantville reveals a deeper analysis. When pressed to identify what they find themselves relying upon in the moments of greatest workplace challenge, the staff opted for 'trying', rather than guessing or showing. Guessing and showing are candidates because they represent, respectively, 'double-loop learning' (hypothesising, or 'what if...?' is guesswork) and the artistry of practice ('showing how to go on'). Argyris and Schön (1978) and Schön (writing alone in the 1980s) have advanced what we are calling 'guessing' and 'showing' as ways to understand organisational and workplace learning – at least for individuals.

But in these postmodern times, we are attuned to a diversity of voices and narratives within a workforce. How do patient care attendants and nurses understand their practical workplace challenges? By acknowledging their empathy, the staff at Pleasantville showed that pattern-making and re-making had a more profound epistemological significance. They do 'try' – but not merely to re-stabilise a situation. Their 'trying' is expressed in discourse (that is, speech, actions, rules all intertwined) which invites and elicits residents' own narratives, and it was this term which the staff found most accurate in describing what they

‘found themselves doing’ in situations of challenge with the residents. We take this to be evidence of what we have called ‘anticipative action’.

Caring for residents with dementia is thus regarded by staff involved as anticipating the need to enter into marginalised discourses, that is, it has an ethical purpose, which is nonetheless up for re-shaping each day – or rather, each shift. And they enter into discourse with a materiality, an enactment, with functional bodies – both their own and their residents – thus literally fleshing out the analysis advanced by many theorists in education and the social sciences (O’Loughlin 1998) which seeks to retrieve the body as a site of learning. We also want to emphasise this, and we do so shortly in this chapter.

Staff grapple with embodied ‘disruptions’. There is a viscosity about the caring which grounds discourse with residents and with other staff – and generates activity-based learning at its most immediate. What to do ‘here and now’ is a vexing issue for these staff; they need to ‘go with the flow’, but also direct it – these are ‘enactments’ of their work. They need creative and rich repertoires of actions so that reaction is not the only enactment available. They must try to anticipate residents’ needs and wants. Moreover, they are aware that they are adding to their knowledge of residents each day as they achieve insights, both personally and through their colleagues, into ways of enacting their caring.

Particular instances of resident behaviour are explicable drawing on wider discourse amongst the staff (such as drug regimes), but in all such cases the localised nature of the workplace (*this* unit in *this* aged care facility) shapes what usage is made of wider discourse.

Here then we see entwined in these more profound epistemologically-oriented enactments not only Aristotelian practical judgements, but also a material privileging of what some prominent postmodern adult educators have called the ‘local, personal and the particular’, as we identified in chapter 2.

3.5 Practical judgement as the basis for workplace learning

A model for workplace learning suggests itself. If we ask how staff in dementia units make sense of their work, returning to Burbules’ three ‘realisations’ of postmodernism, what is evident is as follows.

First, there is a daily grappling with residents’ *diverse* behaviour. Second, that behaviour is engaged by considerations of *power* (resident’s power to be ‘disruptive’; staff power to ameliorate that disruption). Third, the engagement is manifest in *discourse* appropriate to the workplace itself.

Thus these staff are learning from within a community of practice. Like all practitioners, they are confronting diversity, power and a variety of discourses but in ways that are dynamic – they enact these dimensions in the daily flow of their work – and they do so by thinking and doing (and by learning, when all this is shared) in a context. A dementia-care setting is a ‘local, personal and particular’ workplace, illustrative of key features, or ‘realisations’, of postmodernism. It is also a site of powerful adult learning for the staff.

The learning is authenticated by the embodied enactment of these staff experiences, as outlined above, but it is not parochial. The wider epistemological environment – the aged care sector, the health professions, the research perspective and so on – are all drawn upon to help that authentication.

These then are the ingredients of a judgement-driven model of workplace learning:

- a community of practice (that is authentic, embodied, organic work)
- a dynamic (Aristotelian means-ends) engagement with diversity, power and a variety of discourses
- a context which is well integrated with the wider environment.

3.6 Embodied performance

Let us develop the notion of embodiment. Practical knowledge, specifically the judgements that make it up and the enactions that display it, requires the person to be materially constituted, as opposed to a conception of a person that relies mainly upon a soul or spirit. One of the great ironies in education at the moment is that increasing attention is being given to the body – how meaning is ‘written’ on it by gender, ethnicity and class – at the same time as new information and communication technologies provide for the body’s disappearance from learning. ‘Flexible delivery’, especially its on-line version – tends to write the body out of the learning equation. Flexible delivery, especially the so-called ‘delivery’ of learning, may not be as significant a catalyst for better performance at work as is currently thought.

But we are not opposed to information and communication technology; access to learning through technology is part of the air we breathe. This not least because across the history of mass schooling (say, since the 1870s), before policies of lifelong learning even existed, technologies like chalk and readers and globes and excursions and calculators have literally been instrumental in shaping more and better knowledge than ever before – for more people. Multimedia – what has become known in popular terms as the ‘information superhighway’ – is much more powerful than these. It has turned the globe into the global. Local classrooms, unless they plug in to the global, are condemned not just to the local, but also to the parochial. Educational ideologies are moving with the times, too. Lifelong, self-directed learning is, we are told, now available via flexible delivery. The missionaries have returned and they have seen the future (Norris and Dolence 1996).

Let us grant all this. Let us grant, even, that such globalisation is a desirable future. What, however, are the consequences of access to information where a major part of that access is now technologically unbound by real time and real space? In real time and real space, learners appear as embodied beings, in ‘synchronous interaction’ (Berge 1995); in ‘asynchronous’ time and space, however, learners’ embodiments are educationally irrelevant. They need not ‘appear’ in learning at all. We know they are out there, but their interaction is

mediated by technologised time and space. This must affect the quality of learning; and – as we will argue below – because of flexible delivery a phenomenon crucial to high quality learning is endangered.

Classroom dynamics and management have been a close focus of education research for at least three decades, perhaps since the realisation in the late 1960s that Western society was becoming more diverse and that, in schooling, one shoe no longer fitted all feet. Class sizes, gender- and ethnicity-related learning styles, teacher behaviours, activity-based and experiential pedagogies, assessment variables and so on have all been ingredients in debates about how just being there in a classroom as an individual learner-in-a-group improves one's education – or perhaps impedes it. Diversity has emerged locally, classroom by classroom, as a fact of teachers' and learners' lives. Rather late in all this, new information and communication technology has arrived promising individualised (or self-directable) ownership of learning.

Now we can arrange learning environments through new technology which remove the need to 'just be there' – that is, in the room. At once, you may say, we have eradicated the pathology of the classroom: learners will no longer feel their very presence has generated an inscription on their bodies by others. Fat, thin, shy, squeaky-voiced, slow, boisterous, late, sleepy, hairy – the whole Seven Dwarfs roll-call – will be irrelevant in the new virtual learning environment. Learners can log on and off in their own time, arranging their learning program without regard for appearances in real time or real space. And isn't this a great advance?

Undoubtedly so. Of course, the new flexible delivery permits, and requires, feedback. All manner of group-based networking, with and without the teacher, is possible, and assessment tasks can key in to these. This is true – and it is essential. But the more essential point remains: flexible delivery offers an excessively individualistic educational ideology, which, to avoid eccentric and idiosyncratic knowledge-claims emerging, structures masses of teacher input in printed text format. This is paradoxical: what offers self-direction requires teacher direction in large measures.

In contrast, this is not what classrooms nor workplaces nor most households provide, because they exist now, in real time, and in real space, with real bodies present. They provide something much more valuable: the *eros of learning*. This educational 'take' on embodiment is especially significant when we advocate know how and practical judgements as the focus of experiential learning.

The eros of learning is not the pursuit of the erotic-as-sexuality, but the recognition of the wider notion of the erotic-as-pleasure, and it is to be found in the work of the best classroom teachers when they energise a class with a love for the content, and a love for learning in itself. This is a professionally-responsible characterisation of the *enthusiasmos* which inspires learners to learn more. It typically happens in real time in real classes of real embodied people. There is a strong and inevitably visual element in this environment: classrooms can tap our emerging visual culture – say, as performance – the way 'asynchronous' interaction could not even identify. Humour, anecdote, negotiation and spontaneity are hallmarks of this kind of learning, and of this sort of teaching. Putting out spot fires, seizing the

moment, catching the nuance and making something unique out of human sensibilities as they are inevitably revealed are all part of this, too. You have to be there!

In curriculum terms, what is going on is not the ‘delivery’ of content, by processes which are ‘facilitated’ by a teacher or trainer, and ‘chosen’ by ‘self-directed’ learners. Instead, what is going on is the construction of content, by processes which are negotiated during that construction. The teacher has broad aims which he or she works towards within the class, but the energy generated on the way is formative. There are detours, backtracks, byways, brick walls and many fallings-short. The point is that cues from all those who are bodily present are central to all that. These cues will be behavioural in the richer sense that involves the inference of meanings from body language, especially the visual through eye contact. These inferences actively transform the content and the processes in reflexive fashion, on the spot, to arrive at a unique curriculum.

This is the hot action of the classroom, and there is a direct parallel with the hot action of the workplace, as we can see above, in our three individual practitioners (section 3.3), and also in our shared workplace at the aged care facility (section 3.4). It is, if you like, the erotification of learning in the sense that the dynamics of such classrooms and workplaces play out, or enact, the intentions presented in planned and accredited documents. The enactment or performance of, for example, competency-based training or professional development is the more productive and educationally interesting way to regard outcomes-driven learning regimes. We discuss this shortly. But flexible delivery or on-line programs which primarily use new information and communication technology (ICT) to reduce – virtually, indeed – the learner to disembodiment do great disservice to the development of experiential learning, and therefore practical knowledge (see also Beckett 2000a).

This is an ontological objection to ICT, but it has an even more significant, epistemological implication. Disembodied learning reinstates the *Ghost in the Machine*: the primacy of the high status mind within a low-status mechanistic body (Ryle 1949, Schön 1987). This Cartesian dualism has been at the heart of elite education of all kinds for centuries, in grammar schools and Oxbridge, and in the various senior secondary school certificates around the Western world. The academic mind reigns supreme (and strives for promotion), especially in formal theory-laden educational institutions, and the effect of this has been to relegate embodied learning, at and through work – for example, in apprenticeship and through merely ‘doing’ the work (such as in an aged care facility) – to ‘unthinking’ learning. This relegation has resulted in the characterisation of such work as repetitious subservience. However, we can regard such work, by contrast, as a site of practical knowledge if we get serious about bodies and what they can do, and in identifying this ‘doing’ with thinking.

3.7 Competence as embodied performance

Earlier, we suggested that practitioners’ performance at work would extend to ascriptions of competence (or lack of competence). Any satisfactory account of

competence should, then, fit with the organic nature of the learning, and allow a central place for judgements about performance. It follows that any plausible set of occupational competency standards should include tasks (what is to be done), attributes (what is brought to the doing of the task), and the particularity of the setting (where the task is performed).

This point can be summarised by saying that the concept of competence is *relational*. It links together at least three disparate sorts of things. Competence is essentially a relation between *abilities or capabilities* of people and the satisfactory completion of *appropriate tasks* in particular *settings*. This is why we favour what has become known as the ‘integrated’ approach to competency standards, so-called because it integrates attributes with key tasks in a context-sensitive way. Likewise we are opposed to approaches to competency standards that focus exclusively on either tasks or attributes. Such approaches ignore the essential relational character of competence. In so doing they omit one of the key ingredients of competence, thereby leading to inevitably impoverished competency standards, reducing them to reports of behaviour. Only by taking proper account of the essentially relational nature of the concept of competence can the holistic, or organic, richness of work and life experience be captured in competency standards.

One further consequence of the relational logic of the concept is that competence is inferred from performance, rather than being directly observed. While performance of tasks is directly observable, abilities or capabilities that underlie the performance are necessarily inferred. This means that assessment of competence will inevitably be based on inference from a sample of performance in the setting in which the competent work is done. In requiring that the sample meet criteria that will make the assessment valid, assessment of competence is in the same boat as other kinds of assessment. Why is the setting (or situation, or context) crucial?

Alongside formal competency policies and their implementation and assurance are equally powerful but covertly cultural determinants: rules, rituals and conventions, for example. Their intangibility makes them elusive, and their elusiveness tends to mask their power. Cultural determinants by definition start right under our noses, with what we say and the way we say it; our ability to conceive of our daily beliefs, values and attitudes otherwise than through what we find familiar is very difficult. Every workplace has its culture: in the examples above, aspects of professionals’ practice and the culture of the aged care facility display the values and beliefs about the work and the way it is to be performed. These values and beliefs are often implicit, hence their masked power.

Competence is then the inference from a diversity of evidence, via judgements of fitness, rightness or appropriateness. Such judgements are saturated with values, and in that way, they are not only context-bound, but culturally-driven. They can be claimed as objective, even although their provenance is in subjective judgements made amidst the culture of specific workplaces on materially evidential grounds which will stand up to public scrutiny. These judgements are inferences of embodied capability to certain public standards.

Competence is underpinned by an emergent concept of cultural formation, especially for new professions and aspiring professions. But all practitioners should be able to avail themselves of integrated competences. After all, the judgements and range of evidence required for crane-driving are amenable to practical decision-making with actions that bear these out (or fail to) and with a need to justify these in public ways (e.g safety, efficiency, productivity). There is a good deal of know how associated with crane-driving, which integrated competence could articulate.

Practitioners of all kinds are becoming more involved in locating their values and knowledge in broader social settings, instead of inheriting, replicating and distributing a heritage, and certainly instead of merely inheriting or replicating behaviour. Skills are socially located and advanced when their significance is apparent. Integrated competence gives prominence to this social location and to the location of the individual within that social location. That is why context-specific judgements are intended to be integrable and organic. The whole person in a fairly specific setting is more likely to demonstrate an authentic competence than a behaviouristic, but context-free, tabulation of technique (sometimes called 'tick 'n flick' or 'check-listing').

This integrable process is deliberately and simultaneously to lay oneself open, as a practitioner, to cultural formation, and to participate in it. However, the extent of the cultural arena will be perceived variously. Some practitioners and their peers will concern themselves with a professional culture, within broad social and public values they acknowledge but wish to keep at arm's length. For example, legal and accountancy practices may be increasingly collaborative, but have no greater sense of broader purposes other than the amelioration of injustice, corruption and inefficiency. These are assuredly social virtues, but activism – or indeed any other ideological stance – is really up to the perspective of the practitioner, not to the nature of the practice itself; they fit an epistemological and ontological framework already in place. Education and nursing, by contrast, lend themselves to a wider arena of social involvement. The territory of practice comes contested to the individual practitioner when the field is entered, and he or she has to set the epistemological and ontological boundaries, mainly because the pursuit of social virtues is open-ended. The 'enabling' professions lend themselves to broader activism, albeit in the new collaborative forms of association.

Thus the reading of contextual factors will be a universal feature of practitioners' competence, but to move beyond that to a recognition of one's own work or life location (or 'situatedness') is to acknowledge a symbiotic formative process. What such a culturally-formed practice looks like will vary depending on the perception of the extent of the arena of social involvement, as has been briefly indicated. But wherever the practice is on a spectrum of such perceptions, the individual will be adept at learning from and contributing to collaborative peer association. In brief, the new practitioner, sensitive to organic learning and the significance of judgements (both of competence and other matters) recognises and contributes to his or her cultural formation. This means his or her practice is more likely to overtly display an eclectic epistemology, and a sensi-

tivity to a shared ontology. So we may conclude that this practitioner will own his or her workplace identity in a rich and substantial sense, because it will connect individual practice with social and cultural phenomena at several levels, and in manifold modes. Central to that connectivity – that ‘relational’ characteristic of integrated competence – is the recognition of the cogency of judgements, sited in the embodied practitioner.

3.8 Summarising the integrated model of competence

At its most general, cultural formation is the most convenient point of entry to consideration of practice in general and competence in particular. To put the same point more ideologically, cultural formation is the way to approach ‘best practice’. This pursuit of quality performance is usually found in the sort of policy analyses and social commentaries which outline the international competitiveness now expected globally. Whatever one’s view of this policy agenda, we argue that what we have outlined here as ‘integrated competence’ moves beyond

1 the mere listing of tasks (what is done in the job)

by adding the two holistic dimensions:

2 the practitioner’s attributes, (what is brought to the doing of the job)

3 the characteristics of the context, or ‘situatedness’ (where the job is done).

Cultural formation, then, is an enlightening approach to practical knowledge, because it deals centrally and holistically with the complexities and dynamics of values, both individual and social, which, as we have shown, form epistemological and ontological judgements for practitioners. But the whole approach hinges on the integration of these three essential dimensions of workplace performance, which, taken together, justify the inference of competent practice. And these three essential dimensions are integrated in the everyday practical judgements which express and develop the competence of every worker.

3.9 Practical judgements and reasoning

How does the logic of practical judgement operate? The key point is to return to the ‘whyness’ of know how. In practical matters, the purpose (the ‘why’) is to achieve what is efficacious, or appropriate, for that particular situation (or context). So intentionality is pushed a little harder: what is it about what we find ourselves doing which is purposeful?

Kenny, in *The Metaphysics of Mind* (1989) reminds us that intentional action presupposes language: we can perform actions which ‘answer to a particular linguistic description’ (p. 42). However, human differences from animals are also

present in our capability in acting for reasons. Putting these two criteria together, we note that human action is marked by the linguistic capability to explain these actions. Both what Kenny calls theoretical and practical reasoning are shown by similar logical form in that we pass from premisses to conclusions, although in practical reasoning the logical structure of the argument is often tacit. But there is a dramatic contrast as well:

a piece of practical reasoning must contain a premiss that sets out a goal to be achieved....The other premisses commonly set out facts about the present situation, plus information about ways of reaching the goal from that situation. Indeed, the commonest pattern of practical reasoning is this: 'G is to be brought about. But if I do B then G. So I will do B' – where 'G' sets out the goal to be achieved and 'B' describes some behaviour in my power.

This simple pattern is already enough to show that there are important formal differences between the logic of practical reasoning and the logic of theoretical reasoning. For in theoretical reasoning the argument form 'Q If P then Q. Therefore P' is not a legitimate pattern of deduction, but a well-known form of fallacy.... [*This*] difference is connected with the difference between the indicative and the imperative mood. The rules of theoretical reasoning are designed to ensure we do not pass from true premisses to a false conclusion. They are truth-preserving rules. But the initial premiss and the final conclusion of a piece of practical reasoning are not assertions, true or false. They are rather such things as resolves...and expressions of intention, which belong to the imperative rather than the assertoric mood. What then...is the practical analogue of truth?

...if there are rules of practical logic, their function will be to see that we do not pass from a plan which is adequate to achieve our goals to one which is inadequate to achieve them. Commonly, in discussing plans, we presuppose our ability to implement them, and try to work out which, of the various plans we might implement, is most satisfactory – which will best serve our purposes and achieve our goals....we can say that the rules of practical logic are satisfactoriness-preserving.

(Kenny 1989 pp. 43–4, italics added)

Kenny's 'satisfactoriness-preservation' is our criterion of 'appropriateness' or 'efficacy', and fits with the Aristotelian epistemology of *phronesis*: the practically-wise and prudent act. But, more significantly, note that the resolve he mentions as expressed in the imperative mood, is, in workplace practice, evident in any number of exhortations to 'try' to act in such and such a way: a code of ethical conduct, an institutional vision or mission statement, a structure of competencies which embeds judgements of 'appropriateness' within itself.

These exhortations are imperative in mood when they stipulate purposes, but leave open a variety of ways of accomplishing them. They are expressed through what in chapter 2 was called 'anticipative action' – what humans find

themselves doing, in acting intentionally. These actions may be speech acts, or whole-bodied action, but either way they ‘feedforward’ because they invite the possibility that their purposes may be changed in the act of their achievement. By contrast, a ‘feedback’ structure reports on attempts to achieve a purpose, the limitations of which we discussed in section 2.16.

Thinking and reasoning in particular will include, then, the cognitive, the affective and the conative. Kenny locates the wanting and the thinking amidst each other: we want what we know to be ‘satisfactory’ (read: appropriate/effective/good/wise). In short: we want to do well, that is to say, successfully.

Taking Kenny further, we can change performance criteria in most competence structures to read as ‘imperatives’, not, as is more common, ‘indicatives’. The way practical reasoning actually goes on – and issues in judgements, as we have discussed – means that competence structures should focus on imperatives (‘tryings’) in action words such as *undertakes*, *prepares*, *implements*, *adapts*, *initiates*, *delegates*, *administers*, *applies*, *monitors*, *adjusts*, *ensures*, *anticipates*, *liaises*, *identifies*, *responds*, *guides*, *demonstrates*.

Educators should warm to this approach to competence and its evidence. In academic matters, an assertive and critical perspective on learning is at the heart of traditional liberal learning. For example, Hyland (1997) approves of Scheffler’s ringing words on theories of learning that are ‘liberal’ in the degree to which they ‘respect the student’s intellectual integrity and capacity for independent judgement’ (Hyland 1997 p. 501). On the way through, Hyland raises our own work in this area (Hager and Beckett 1995), known as the Australian ‘integrated model’ of competence, and takes issue with it. He claims it collapses, inevitably and necessarily, into technicist and instrumentalist behaviour (p. 495). In this way, states Hyland, de-skilling and de-professionalisation of occupations like teaching and nursing is the result (p. 498). Thus professionals’ practice, normally embedded in liberal values, is said to have disintegrated.

But this chapter is precisely about endorsing and advocating ‘intellectual integrity and capacity for independent judgement’ (to use Scheffler’s words as endorsed by Hyland) – and not just for professionals. He is right to state that, ‘no-one...seems to want to defend behaviourist learning theory...’ (p. 493), and we explicitly recognise in integrated competencies a richness of practical experience which is at the heart of (liberal) adult learning. Organic learning could scarcely be anything less than this. Moreover, we have mapped out a practical logic which underpins the exercise of dynamic and open-ended judgement, sought after not only in academia, but also at work in general.

3.10 An example of integrated competencies

In Australia in 1993 the New South Wales Law Society created a Specialist Accreditation Scheme in which they designated specialist lawyers in four specialisations: family law, criminal law, small business law and personal injury law. This proved to be very popular with law consumers and has now grown to fifteen specialisations, some of which have spread nationally. They developed integrated

competency standards for each specialisation and devised and implemented in each case an assessment strategy based on the competency standards. Prior to the adoption of competency-based assessment for the accreditation of the specialist lawyers, the proposal was to use the traditional methods of unseen examinations and referees' reports. This proposal attracted considerable criticism from both inside and outside the legal profession, mainly on the grounds that it would do little to identify those lawyers with a genuine capacity to perform at the specialist level in the identified areas.

Accordingly, integrated competency (or performance) standards were developed for each of the specialisations, and an assessment strategy was designed and implemented based on the content of the competency standards. In each case, the assessment strategy features a knowledge exam and referees' reports, as well as two other assessments that focus on performance within the specialist area. For example, in family law, candidates are required to carry out simulation exercises centred on conducting a first interview with a person acting in the role of a client. This simulation, about an hour long, is videotaped, and the videotape is assessed by the examiners. The various versions of this simulation have been constructed so as to assess a wide range of the contents of the competency standards, including those related to interaction between the solicitor and the client, taking instructions and giving advice, assessing facts and legal options, canvassing the options with the client, and developing the initial plan. Underpinning attributes tested by the simulation include communication, evidence gathering skills, and acting ethically, as well as various kinds of knowledge and their application. Thus the simulation was developed with elements and performance criteria from a variety of units in mind.

While depicting different clients, situations and problems, the six simulation exercises that have been developed all have the same basic structure: an immediate need; long term issues; information not disclosed unless appropriate questions are asked; client's hidden agenda; presentation of a problem that requires non-legal solutions, (including some of a religious or cultural kind that require sensitive handling); an ethical issue; and a query about costs.

In family law, the other performance-based assessment activity requires the candidate to complete specified tasks on a mock file compiled by the examining committee. This provides assessment evidence on various aspects of the competency standards, including legal analysis, presentation of various options to the client, and preparation of court documents. The combination of simulated client and mock file might suggest that a more valid assessment strategy would employ a real client and a real file. It is true, in general, that assessment of performance of real work situations is more valid than of simulated work situations. However practical and ethical considerations, the relative weight of which varies with the nature of the occupation, can sometimes tip the scales in favour of simulations. In the medical and paramedical professions, for example, simulated patients are likely to be much less satisfactory than real patients for purposes of performance assessment. However, simulated clients have distinct advantages in the field of law. Provided that the person playing the role of the

client has been well trained, thereby minimising relevant differences from a real client, it is possible to employ carefully designed cases that are much richer from an assessment point of view than are typical real cases. Thus a well-designed simulation and mock file can yield assessment data much more readily than a combination of typical real cases.

This sort of combination of performance assessment supplemented by more traditional types of assessment that is being used to accredit specialist lawyers is not, of course, something totally new. Clinical assessment of this kind features in the final years of the university degree courses for many health-related professions. String quartets and the like commonly fill vacancies by trialling the actual performances of applicants selected by interviews. In many countries, driving licences are issued on demonstrated capacity to drive in actual road conditions with successful completion of a knowledge test being a prerequisite for taking the performance test. It is noteworthy that whatever the limitations of assessment procedures of this kind, suggested improvements usually relate to making the performance assessment more demanding rather than replacing it by, for example, traditional exams. What is most novel about the law example is how the performance assessment was developed from integrated competency standards. The competency-based assessment strategy ensures that evidence is collected on all aspects of what is considered crucial to overall effective performance in the respective specialist areas.

3.11 Productivity and performance

In the organisation of the twenty-first century, productivity will be more substantially recognised in work-based performance, and we have outlined how and why this richer notion of 'performance' could be encouraged: by workplaces and their dynamics, by certain usages of learning through ICT, and by competency structures.

Taking organic learning intentions seriously requires a deeper analysis of the values of the workplace. We have seen that practical wisdom (*phronesis*) gets us some way here, but not as far as we would like. If organisational learning is to take up the genuinely organic, it can start by looking at the power of the creative act in the very performance of work. This is the raw material for organic workplace learning, because it addresses the heart of productivity, that is to say, the 'making' of decisions and judgements and their instantiation in action.

For an organisation or an individual practitioner looking to grow, organically, the signs are that closer sensitivity to human experiences at work, in the ways we have outlined, will provide many reasons for more explicit personal attention to adult learning. The emphasis in this chapter on learning arising from affective experiences, and on the particular sociocultural location of those experiences, sits well with the postmodern mood (Usher, Bryant and Johnston 1997). In the next chapter, we take up the organisational and institutional aspects of this judgement-focussed know how.

4 Policies and context

The socio-cultural shaping of practice

4.1 Introduction

Many philosophers, of whom Aristotle is one prominent example, recognise the situation or context of human activities as crucial to the meaningfulness of those activities. Our very selfhoods are, perhaps, constructed first by each other – the people around us – from which our individuality then flows. Yet many policies – on education and training, labour markets, employment and welfare, for example – in governments and in particular organisations and institutions, assume that the individual is sovereign. In adult education thinking and ideology too, the ‘self-directed learner’, atomised and choice-laden, is often the starting point for policy formulation. In this chapter, we want to show that this sort of reductive assumption is unwarranted, and that broader, more socially and culturally sensitive approaches to practice are available in the realm of policy.

We have argued in chapters 2 and 3 that if educators, trainers and indeed all those who are responsible for their own and other adults’ learning are serious about whole-person workplace learning, reductive and narrowly cognitivist paradigms (as Beare and Slaughter (1993) put it) must be confronted. It seems to us that workplace learning will be more apparent in those who understand their own ‘context’ or situation in daily social life at work – shared feelings, thoughts and actions at work construct us as workers. The same is true of life experience itself. Those who can recognise this – who are open to their own learning possibilities (as ‘whole persons’ if you like) – can then advance such learning in others.

Managers, for example – who are frequently leaders in some way, working with other humans (say, team-members, learners, patients, and clients) – are increasingly expected to show leadership in their own performance of sophisticated ‘people’ skills. The current interest in ‘emotional intelligence’ has direct bearing on this, as does the influence of recent studies of women’s experiences in their promotion of ‘soft’ skills. If managers can create amongst their peers and their clients a climate that nurtures everyone’s creativity, they will have demonstrated an integration of the cognitive, the psychomotor, the social and the affective. They will have shown that integrable workplace learning is at the structural and cultural heart of the organisation in which they work. In terms of Aristotelian creativity, they will have united learning and work – made learning

work, indeed – by making the work experiences of the ‘whole person’ the heart of a new epistemology of practice. In chapter 2, we asked how those charged with the leadership of learning can go about provoking such holistic experiences, and we identified one simple way to encourage sensitivity to a richer, more purposeful epistemology of practice: bear reflective questions in mind during the working day, such as *What are we doing? Why are we doing it? What comes next? How can we do it better?*

Non-trivial (i.e. reflective) answers to these simple, unexceptional questions can provoke learning, as in the cases of managers and nurses which we have noted already. Such answers will typically represent context-sensitive, purposeful responses to daily work experiences, and contribute to what we call organic (whole person) learning. In this way, experience can be trawled to generate an articulable ‘know how’, which is socially significant. That is, judgements are made (the ‘know how’) and justified (the ‘know why’) in the language, context and values of the workplace or the household. Practical reasoning is the vehicle for the emergence of an inferential understanding, which shows up in integrated competency structures, but also in the integrity of everyday talk. Informal and incidental learning of this kind, despite its traditional low status as learning, results from this epistemology of practice because its ontological significance in embodied action gives it a high educative potential. Our emphasis on practice as the new source of significant adult learning thus confronts Cartesian dualisms both epistemologically and ontologically.

4.2 The significance of contexts

When organic learning, especially at work, arrives at the centre of the educational stage, it will have done so partly because human experiences will have been recognised as ‘practical’ in the richer sense outlined in chapters 2 and 3.

But this statement is contentious, not least because on the issue of competencies alone, it will antagonise two polarised opinions which have informed policy for some time:

- a view typical of those who have an industrial or political interest in atomised work, or in the autonomous self-directed learner, chopping up work and life experiences into ever more tiny fragments, thereby ignoring the know how and practical judgements that glue all these together; and, conversely
- a view typical of those who have an educational interest in maintaining the citadel of higher learning against those who claim (as we do) that work and life experiences generate powerfully educative embodied learning.

Against both of these viewpoints, in the previous two chapters, we have shown that practice is a crucial component of what it is to be human, and that workplaces can develop, and indeed are developing, structures which advance human capabilities for rational, purposeful action. ‘Anticipative action’ underpinned by an epistemology of practice drawn from Aristotle and Wittgenstein,

and some empirical evidence, shows great promise in this regard. We argued in chapter 2 that training in general seems amenable to this promise. In chapter 3, we argued that professional development is similarly amenable. In fact, in terms of adult learning, the two do not look very different. Although they have vastly different cultural and educational histories, training and professional development have, perhaps, a convergent future. In this chapter, we push our epistemology of practice into the broadest contexts within which work is done: the organisation, and, beyond that, within Western society at large.

4.3 Organic learning in the organisation

It is one thing to spell out how an individual manager, in a specific context, can be encouraged to think and act in an integrated, focussed way: that is, can take responsibility for her or his organic workplace learning. It is a larger task to show how this organic learning can be encouraged across an organisation. Nevertheless, there are some easily understood structural provisions which can be identified. First, however, a little background.

Workplace learning has a dreary history. In brief, it has emerged from reactive and behaviouristic assumptions about adult learning at work – typically showing up in the traditional training classroom – and it is now dragged blinking and bewildered into a fast-moving enterprise globalism, where what is required is pro-active, strategically-focussed, non-classroom learning. This book so far has shown how organic learning presents a helpful framework in which individual practitioners, both professional and non-professional, can generate all manner of experience-driven learning.

In that sense, human agency ('what I can do') has become an increasingly central and compelling feature of work life – rather than the traditional 'skill deficit' training ('what I can't do'). In this sense, workers are actors in an increasingly demanding work environment; their agency is not only expected but required by the new workplace.

Much adult education scholarship has replaced the traditional behaviourist approach to learning at work by what is called a humanistic approach. This is a model of learning centred upon the holistic richness and individualistic integrity of human experience. That is, humanist psychology starts with the reasons, motives and values of the individual and seeks ways of structuring the experience we all inevitably undergo, so that better learning results. So formal or classroom-based training is only part of the experiences people have at work from which they learn. Informal and incidental learning have emerged as significant concepts in the further development of workplace learning. But we argue in this book that it is the context-sensitivity of practical knowledge (both the arrival at know how and the development of judgement) which is crucial in making the individual practitioner who she or he is – in terms of both construction of her or his knowledge and construction of her or his identity.

Any consideration of this context, apart from these educational innovations, must recognise that globalisation and technological changes (especially ICT) put

pressure on productivity and profitability, injecting an urgency into workplace learning, with consequent pressures upon living and earning a livelihood. The intensification of work has massive implications for the health and integrity of those who work and those who seek it. No paid workplace is immune from the pressures to cast about for strategies that give a hope of that elusive market edge. Furthermore, and ironically, organisational restructuring since the early 1990s has shown amongst other things that much traditionally skilled work is disappearing. Given all this, it is hard to see where the authority for innovation is meant to come from. People are caught up in getting or keeping their jobs and livelihoods.

Who is around to articulate the strategic vision – expressed in policy documents – of the organisation in ways that make it accessible to the workforce in a range of learning modes? We argue that it falls to the lot of the leader of learning who can express and enhance organic learning, who can display it in her or his daily work, and who can fire up others in like fashion. In short, organic learning supported and modelled across an organisation offers some of the best ways to advance the sense of ownership of a specific part of the workplace, as well as advance the ownership of the whole, integrated, corporate culture.

4.4 Values in and for the organisation

A prominent European management consultancy introduces its new international periodical with this cover quotation:

VALUE MANAGEMENT: Boundaryless behaviour is our number one value. You must be open to an idea from anywhere – inside, outside, up, down. The only thing that counts is the quality of the idea, not the rank of the person originating it. *Jack Welch, Chairman of the Board and CEO, General Electric Company.*

(*Focus*, Egon Zehnder International 1997 vol. 1 no. 1)

Welch is articulating something crucial here. As the new century is upon us, we find the corporate world restless and rapacious. Part of that stance is reflected in growing enthusiasm for continuing – even lifelong – learning; certainly the potential for daily workplace learning has barely been identified. So far it is white-collar professional work, such as that of managers, which is at the leading edge of innovation. For corporate leaders like Welch, any ‘quality’ idea will be welcome. This is, presumably, evidence of the new democratic, participative workplace in operation. But to what extent? When value judgements of ‘quality’ are ascribed, we do well to pause for thought. The action at General Electric may be across the boundaries, but the underlying value of this action is not so obvious.

Productivity from anywhere is what Welch wants, and by this he means creative thinking and doing, intertwined. Chapter 3 culminated in just this link,

between performance and productivity (3.11), where we were concerned to identify organic learning, and the conditions for it, in the creative actions of individuals. In the broader context of Western organisational and national interests, this creative productivity seems to be everyone's aspiration! As labour markets swing towards 'knowledge work' and away from traditional skill requirements, a new concept called 'productive knowledge' has emerged. This is really what Welch and the rest of turbo-charged capitalism is after.

Next, then, we try to map the terrain of this productive knowledge, so the boundaries, such as they are, are more apparent. Then, taking up the spirit of Welch's notion of a 'quality idea', we analyse what seems to be currently regarded as valuable – or 'value-laden' – about productive knowledge in workplace settings, so we can propose a new way of getting our bearings across that terrain. In these two ways, the significance of context in the advancement of practical judgement will be developed. The individual practitioner, and his or her epistemological and ontological status, will be more credibly regarded as an emergent construction from particular social and cultural settings.

4.5 Mapping the terrain

In the new knowledge-driven world, what map can we draw of its value-ladenness? Outside the traditional influence of universities and formal learning, the polarities are perhaps identifiable as follows:

- 1 the *value added to corporate wealth* (shown for example when share prices increase) by astute management of market operations – the know how of the street-wise
- 2 the *value denied human potential* (shown for example when 'down-sizing') by concentration on intensely reductive 'human capital' characterisations of work and learning.

Taking point 1 first, we note a literature on values management, emerging from the quantification of share-holders' desire to see over time a satisfactory return on their investments (Rappaport 1986; Copeland 1990). This literature has now started to consider other, more ecologically-sensitive and ethically-informed values as part of what sound corporate management is about (Gomez 1997; Solomon 1992). In this sense, a fairly technicist origin has evolved into broader values, while remaining within corporate capitalism. Corporate enterprises are asking themselves what 'value-added' activities can be advanced, a trend which is congruent with the rise of 'emotional intelligence' (see section 2.11). The banality of 'Have a nice day' at the counter of the fast food outlet is more seriously apparent in the notion of the bank that 'cares' enough to identify 'relationship managers' amongst its corporate profile. In both cases, values themselves have acquired a market value. The encouragement of organisational likeability shows that a certain street-wisdom has started to shape productive knowledge.

Turning to point 2, we note a literature of anti-vocationalism, emerging from the Western intellectual traditions of political economy (Bowles and Gintis 1976; Brosio 1994) and from liberal education (Peters 1967; Usher and Edwards 1994). Together these share a scepticism of vocational (especially corporate) learning; the argument goes that this instrumental learning generates a compliant workforce, and hence tends to heavily compromise personal learning opportunities. So the potential for critique and liberal learning, it is argued, is diminished or even compromised. On this anti-vocationalist argument, values from outside corporate capitalism have been applied against it. Yet by literally ‘incorporating’ some of those liberal and critical values and learning strategies (such as those practical learning activities listed in section 2.3), many enterprises are identifying what working life has been lacking or has been denied, such as a richer variety of opportunities to excel, to participate creatively, and to decide for oneself how the work is to be practised. Devout anti-vocationalists remain unconvinced that these workplace reforms are anything other than cosmetic: don’t these reforms leave power undistributed, although they claim to have democratised corporate workplaces?

In between these polarities, we find a morass of values. Almost everything about corporate life is up for re-examination, now that globalisation and technologisation is fully upon us, so much so that the very polarities are collapsing into each other.

A prominent example of this re-examination is available in the book *Rethinking The Future* (ed. Gibson 1997), with its modest subtitle, ‘Rethinking business principles, competition, control and complexity, leadership, markets and the world’. Handy, Bennis, Covey, Hammer, Kotter and Senge are some of the contributors, and in their work one senses a breathtaking reassessment of value-laden practices right across the corporate world, involving both the polarities we identified above and much else in between.

Handy, for example, makes the first contribution, ‘Finding Sense in Uncertainty’ (Gibson 1997 pp. 16–33), and seizes the postmodern mood of doubt and instability. He develops, almost evangelically, a crusade for constructivist (rather than traditional inherited) values at work, in education, at home and in the community at large. Now that capitalism is triumphant, Handy believes the enemy is within:

Communism had a cause – which was, ideally, a sense of equality and prosperity for all, that all people were and could be equal – but it didn’t have an appropriate mechanism to deliver that cause. Whereas capitalism is a mechanism, but it seems to me that it lacks a cause. Is it all just to make us rich, or is there more to life than that?

(p. 29)

This raises the values previously the preserve of the Left – those sceptics of capitalism as an economic ‘system’ – and reapplies them within the ‘system’ as a

critique of the values of the Right (identified as part of point 1 above). Handy goes on to show this cross-over when he states:

The first stage in rethinking capitalism is to be absolutely clear about what it's all for and *who* it's for. I don't think the answer that it's for the financiers – i.e. the shareholders – is a very adequate answer at all, either practically, or morally. We have, for instance, to realise that the new source of wealth is intelligence. It's not land, or money, or raw materials or technology. It's the brains and skills of people...

But, in the age of intellectual capital, who owns the capital? It's not the shareholders. It can't be in any real sense. The people who own the capital are the core workers of the company. In other words, it's the assets who own the assets.... So a model that says that the company is owned by the people who finance it – and that the people in it are just instruments of those owners – is no longer pertinent in this day and age, and it certainly won't be appropriate in the future. It just isn't the right sort of concept.

(p. 30)

Mapping the terrain of corporate values involves, then, some boundary-crossing. This is a more profound phenomenon than the omnivorous quest for 'quality' ideas at General Electric. Asking, as does Handy, what is the meaningfulness of capitalist enterprise, and answering that question with educationally-resonant concepts (intelligence, skills and the like) redraws the old polarities with which we began. How can we get our bearings when the compass points have changed?

4.6 Producing knowledge

We can get new bearings for our compass by moving to the new areas of knowledge within the organisation, where many practitioners are located, producing knowledge in and about their work. This is related to how such organisations can tap into such knowledge, and of course then raises the question of how the practitioners themselves regard that organisational context as the setting for their own practices.

Knowledge productivity, grounded as it must be in some espousal of intellectual capital, has emerged primarily in analyses of managerial work, so we deal with that form of professional practice in the next few sections. Educationally-resonant concepts have become increasingly prominent in what these professionals do, and with whom they do it. Argyris is a significant contributor here, and he has stated (1993):

Learning is an idea in good currency. The quality of learning within a company yields 'intellectual capital', crucial in building an organisation that is vigilant about detecting and correcting errors, dedicated to producing

innovations, and ready to change to meet the needs of the environment, which itself is often changing.

(p. 5)

Growth and change in progressive, ‘truth-seeking’ ways, are, however, all contestable concepts. Indeed the postmodern mood deliberately contests enthusiasm for a learning organisation by casting a shadow across the uncritical optimism of much of the corporate and organisational design literature. The shadow envelops glossy perceptions of both organisations and of the learning expected to occur within them. This is not to deny that growth, change, progress and ‘truth-seeking’ are worthy concepts, but rather to assert that, in the case of practitioners at work amongst and within organisations, such concepts need to be drawn upon with a very finely-wrought regard for their contextual sensitivity. Sometimes the hype is all there is. Sometimes, however, organisations can get beyond the hype. How can this be done?

4.7 Knowledge and the organisation

Postmodern sensitivity to work contexts shows up, as we have just stated, in current thinking on managerial knowledge and organisational design. Here our espousal of organicism for individuals (in chapter 2) assumes broader significance.

Flood and Romm (1996) recount the evolution of the organic model of organisations, summarising it as follows:

An [organic] organisation is a system that comprises sub-systems. It is open to its environment and must therefore adapt and change in order to survive and to aspire to organisational goals. Some advocates of the organic model see the system as influencing its environment (e.g. networking). The organic view promotes a need for broad commitment to organisational goals from employees. Division of labour is informal and flexible. The organisation is team-based, adaptable and less rule-bound than bureaucracy. Communication is based upon horizontal task-related needs, not a vertical hierarchy. Situational authority is more important than formal authority and so influence (power) depends much more on the contribution a person can make to managing issues rather than to formal authority.

(p. 92)

Flood and Romm identify the role of contingency – there is no ‘one best way’ to structure activities for all circumstances – along with flatter, networked lines of ‘compartmentalised’ work units as central to organic organisations. Information technology is presented as an important new factor in the organic model, because communication flows are now more immediate, and therefore are a significant element in all management decisions, no matter how ‘flat’ the networks are (pp. 97–8). This development of the organic model, called ‘viable

systems', nonetheless has a tendency to inhibit the very growth which an organic model was meant to generate:

Co-ordination harmonises conflict. Control maintains stability. Intelligence enhances adaptability. Policy balances overall needs between internal and external factors and embodies people's purposes. In these different ways, it is argued, the management functions help to increase local freedoms. A post-modern critique, however, argues that the quest for harmony and stability tends to assimilate people, which is oppressive and denies the need for vital differences and tensions in organisation.

(p. 104)

On this basis, Flood and Romm explore the notion of a postmodern organisation, taking 'fragmentation' as a key point. The loosening of a broad confederation of work units pushes occupational diversity and social differences at work to even greater plurality: rules are set locally, work units associate eclectically, and 'organisational life is playful and decorative with many themes, with no authentic experience of "what it is like to work in this organisation"' (p. 108).

Clearly this is, as Flood and Romm state, a high risk and potentially divisive model (p. 109–10), but the possibility of continuing to make innovative and constructive responses to opportunities is a tantalising one. Ultimately Flood and Romm see a postmodern organisation as a cultural construct, set free from rule-following, but susceptible to prolonged internal negotiations over what counts as a constructive responses, which may, ironically, make it slow to respond to the market.

So far so good – if the market productivity of this approach could be shored up. But perhaps there is a way to strengthen the internal operations of just such a postmodern organisation, so that its organicism – or rather, its varieties of organicism, each flowering colourfully – are nurtured.

4.8 Nurturing knowledge

To backtrack: the traditional 'cognitivist' approach is not very helpful in nurturing growth. Under this approach, an organisation's knowledge of what it does, and how it can do better, is understood mainly as 'information processing and rule-based manipulation of symbols (like words). Knowledge is abstract, task-specific and oriented towards problem-solving' (von Krogh and Roos 1996 p. 162). Cognitivism assumes the world of the practitioner, as for the organisation, is pre-given, and that what is required is more accurate representations of this world. Even in the late 1990s, practitioners who mainly work with symbols (words and images, figures and data) are often called 'knowledge workers', or even more technically, 'symbolic analysts'. These workers or analysts provide, it is thought, 'solutions' – to business, or training or market 'problems'. These terms reflect a cognitivist approach to organisational and professional practice. If

the structures can be changed the problems will be solved and the world of practice represented more logically, it is thought.

An organic approach moves beyond cognitivism. It is sympathetic to what has become known as ‘autopoiesis’ theory, which suggests, as von Krogh and Roos state, ‘not that the world is a pre-given state to be represented, but rather that cognition is a creative act of bringing forth a world. Knowledge is a component of the auto-poietic (self-productive) process; it is history-dependent, context-sensitive, and, rather than being oriented towards problem solutions, enables problem definition’ (p. 163). Here it is apparent that unlike cognitivism, organic organisational and individual practice is less interested in assimilating new and changing circumstances to existing patterns and rules, and more interested in generating perceptions which feed forward, taking with them re-definitions of those existing patterns and rules.

Two implications of this are drawn out by von Krogh and Roos and are central to the postmodern practitioner amongst organisations:

First, the proposition of embodied knowledge suggests that all knowledge is dependent on the manager, or everything known is known by some body. More importantly, however, knowledge depends very much on the ‘point of observation’ of the manager. Where you stand or what you know depends very much on what you see or what you choose to be relevant. In autopoiesis theory ‘knowledge’ and ‘observation’ are closely related, since observing systems are autopoietic systems (p. 164).

This embodied practitioner (in this case, a manager, but the point is a general one) brings to the actions of practice a knowing gaze, not an innocent eye. Perceptions of all kinds, not only the visual, are embodied in practical performances, and shape and re-shape those performances. The skill – or, as we have been discussing in the previous chapter, the competence – of the practitioner is optimally embodied in the deft touch, the knowing gaze and the sagacious opinion. In that sense an individual practitioner is defined by her or his actions in the world. Organisational practices define an organisation in the world. But the central point is the same for both the individual and the organisation. It is the perception of the world within which the practices occur which defines the sorts of individual or organisation which exists. This is the key to the organic model of an organisation, and what sets it apart from the cognitivist model. Under cognitivism, perceptions of the world define the sorts of practices which exist, leaving the entity, be it the individual or an organisation, to assimilate these. Under organicism, perceptions of the world define the sorts of entities that exist, which is a far more fundamental claim.

The second implication identified by von Krogh and Roos in saying that cognition is autopoietic is that:

we need to distinguish between data, information and knowledge. In autopoiesis theory, information is not a commodity or a substance, [but]... is a process of interpretation.... Literally, information means to ‘to put’ data ‘in form’.... Books, movies, lectures, papers, computer programs, memos,

etc., are *data* in the environment of the manager – *not* information.... Information is dependent on the manager who makes use of it to create knowledge.

(p. 165)

This is, on the one hand, completely surprising, and, on the other hand, completely straightforward. Straightforwardly, most of us would agree that books, movies, lectures, papers and so on are not knowledge, since they require the ascription of meaningfulness to them by readers, viewers, listeners, browsers (both human and technical); they are sources of knowledge. More surprising is the denial of ‘form’ to these human artefacts, and their relegation as ‘data’. A book, movie, lecture, paper or a computer program is a highly ‘in-formed’ artefact. Indeed, without the form of the book (for example), the knowledge potential of the artefact is unrealisable. A book without a form of a book is not recognisable as a book, but more profoundly is not recognisable at all, on von Krogh and Roos’s own argument – as an extrapolation from the first implication discussed above. Clearly, von Krogh and Roos are claiming too much. While autopoiesis theory requires and can explain the interpretative involvement of the individual in shaping and re-shaping data, the distinction made between such data and what purports to be ‘information’ cannot stand. Both are generated as knowledge, by practitioners, and collectively, in organisations, but von Krogh and Roos’s account of, and need for, the difference between the two, seems inadequate.

Nonetheless, the central point is a strong one. Knowledge arises from interpretations, and is subject therefore to successive and continual re-shaping. It is this commitment to dynamism and the focus on the embodied practitioner as the meaning-maker in action which make autopoietic theory an important development of organic practice. But the interpretations are never solely individualistic. Practitioners are immersed in practices, which are socially and culturally located, and which, mainly through the communicative medium of human language, are articulable and justifiable.

To summarise so far: what makes know how ‘knowing how’ is that it is part of a socio-cultural group’s acknowledgement that it is a form of expertise (which makes a community of practice just that); that there is an element of publicly-accountable judgement that know how requires; and that there are linguistic forms that express this as practical reasoning (see the model of workplace learning outlined in section 3.6).

This reasoning articulates an emergent ‘knowing why’: the purposes practitioners have and their success at achieving these are constructed in the communicability of their actions – both linguistic and material (as Kenny’s acknowledgement of the imperative mood in practical reasoning makes clear: see section 3.9). This is how material enactments of, for example, competencies, get – or do not get – to the heart of the ascription of the competent. It is only in the doing that the knowing is inferable. This inferential understanding is a socio-cultural achievement which locates an individual practitioner as more or less

competent. And the socio-cultural context of practice therefore should be nurtured, not negated, by policy.

In this sense, the larger context of work, and learning at and for work, requires a good deal of attention, because so much is changing so rapidly. It is to the 'big picture' of working life for practitioners and organisations to which we now turn. And here we must confront the New Model Worker.

4.9 The New Model Worker

Work in contemporary Western societies has changed in ways that are now well documented, and to which attention was drawn briefly in section 2.2. For those lucky enough to have a job, even perhaps a full-time job, working at that job has intensified. Instead of traditional Fordist practices, whereby production was repetitive, heavily supervised and therefore marked by adversarial social and industrial relationships (the 'boss' and the underlings), we are thought to have moved into post-Fordist times. These times are meant to be marked by greater individual discretion over work practices (less overt supervision), with more of a role for judgement and co-operative problem-solving in the performance of the work. Management of the workplace is less coercive and more persuasive in a post-Fordist environment, offering other workers and themselves flexibility over how work practices are designed. In all this, self-management is the key to workplace success. Individuals are invited to participate in teams, so that daily problems can be immediately and consensually addressed. This requires a commitment of time, skills and a substantial amount of personal self-esteem, to the greater good of the team, from which the organisation stands to benefit. Mission statements and other visionary devices focus workers' attention on the possibilities of 'continuous improvement', of seeking out 'best practice', and of 'lifelong learning' at and through work.

The ideal worker is now quite different from the compliant performer of the Fordist past. Following orders and rules in what was basically an adversarial work environment has been replaced by what some call the worker as 'intrapreneur', a self-reliant, entrepreneurial yet loyal personality. One's very subjectivity is on the line – indeed, literally on the assembly line, and in the office – as increasingly unstructured and uncertain contexts of decision-making generate expectations of reflective abilities.

This then is the New Model Worker, happier at work because she or he has more of a stake in the way the work is done, and in the decision-making that sets up and modifies those ways.

In this new workplace, the worker is an individual at one with the tasks, because the tasks themselves are integrated. The task itself is the responsibility of a multi-faceted worker, rather than the Fordist model of each task having technical, clerical, marketing and developmental facets, each the separate responsibility of workers defined by their specialisms residing in a stratified workforce. More skills, a deeper grasp of organisational strategy, an outcome-driven attitude, and a propensity for continuous improvement are all features of this

multi-faceted worker. So in this way we can see that the New Model Worker exists in a more intensified workplace. She (or he) needs to know more, do more and think more than ever before. And the location of all this intensity is herself, her sense of her own managed direction, even of her own identity as a person-at-and-through-work.

The New Model Worker is thus a re-construction of subjectivity – of who it is to be a worker, a subject which is not only an individual person, but also a site of workplace practices. The integration of the individual with the practical is so complete that we are able to claim that this new worker is an organic model. It represents personal identity and workplace practice in a way thought to construct the ultimately ‘employable’ worker.

There are policies that construct just such a person, which we will examine shortly. But reality is rather different. After all, when the Hollywood starlet and the studio executive reach an understanding of the starlet’s employability, we doubt that much investigation of generic skills deficiencies, labour market productivity, and the accumulation of human capital would shed much light on how and why she got the leading role in the movie. Similarly, the so-called Old Boys Network operates on previous schooling socialisation for ‘chaps’ to benefit from one another’s assumptions of trustworthy business practitioners: sadly these assumptions are often misplaced. People gain and keep paid employment for all sorts of reasons, the machinations of the casting couch and the old boys being among them.

We want to expose the aridity of human capital theory by developing the notion of social capital, and the implications this has not just for employability and purported skill deficiencies, but also and perhaps most abstrusely, for the very social construction of the individual. Practitioners are individuals, of course, but it is their socio-cultural location which enframes their individuality. In the rest of this chapter, we want to show how some policies relevant to working life are better regarded as socio-culturally significant, rather than as primarily individualistic in focus. There exists a tension between human capital and social capital, and this will serve as a starting point.

4.10 Employability and productivity in a social context

The International Labour Organisation has drawn attention to this tension (ILO 2000), in connection with the currently popular policy area of youth employability. In this Australian example of that tension (Kirby Report 2000, which explicitly draws on ILO 2000), claims are made about employability as a requirement of changing socio-economic work conditions which could be made in many Western countries:

Education and training are the main instruments available to governments and the community to prepare individuals for a rapidly-changing, increasingly-demanding world of work, and to improve their employability. An individual’s employability depends on several factors. It involves self belief

and an ability to secure and retain employment. It also means being able to improve his or her productivity and income-earning prospects. This often requires competing effectively in the job market and being able to move between occupations if necessary. It requires ‘learning to learn’ for new job opportunities in an advanced knowledge, communications and technological society.

(Kirby Report 2000 p. 37)

A critical issue for post-compulsory education and training providers is how best to achieve a smooth transition from school to work and at the same time enhance people’s basic employability. This issue requires emphasising on the one hand general academic education and the development of portable skills, and occupationally-oriented training on the other.

Earlier in the Report, Kirby contextualises this approach to employability by emphasising the shift to a knowledge-based economy, marked by ‘intangible inputs dependent upon employee knowledge and skills, such as creativity, design proficiency, customer relations and goodwill, and innovative marketing’ (p. 33), drawing on Gore (2000). These ‘intangible inputs’ are elusive – but, increasingly, so is the employment through which they are apparent. Kirby goes on to discuss the ‘precarious’ nature of work: ‘a feature of both low performance and high performance workplaces’ (p. 34). Indeed, quoting directly from an OECD (2000) policy brief:

It is essential for our education system to pursue two objectives at once. One objective must be to produce a high-skill workforce that can match or better the skills available in other countries. The other objective, to be pursued with equal vigour, must be to promote the economic and social inclusion of those most ‘at risk’ in the new economy. The groups that require special focus include: retrenched workers, the long-term unemployed, women returning to the labour force and young people moving from full-time education to full-time work...[and also that] particular regions or localities are not left to lag behind or decline.

(Kirby p. 34)

But what is the basis of ‘precarious’ employment? Employability is intimately connected to policy interest in productivity, and here the picture is by no means consistent. Individuals choose how they wish to be regarded in the labour market (as more or less ‘employable’) depending on other contextual considerations. Again, generalising from an Australian policy debate, we can identify a variety of ways individuals engage with employability. Murrough and Waite (2000) puzzle about the supposed links between ‘precarious’ employment and ‘casual’ employment: are casually-employed individuals in virtue of that status ‘precariously’ employed? They conclude that there are different forms of non-traditional employment, growing for different reasons, and that reliable data is not available about this. However, Murrough and Waite indicate that:

- Supply side reasons often represent the need of young students to work flexibly while studying, and the needs of women returning to paid employment who value part-time work in combination with child-care responsibilities.
- Demand side reasons in cases when for employers, ‘wages and on-costs are unlikely to be the sole consideration. Casuals would be more attractive to employers where recruitment and training costs are low; demand is irregular; output cannot be stored; and where the cost of a poor match between employee and employer is high’ (p. 27).
- Institutional reasons, mainly changes to awards-based regulations, where various sorts of rostering, leave and enterprise-based arrangements affect who works, and when.

We know that across the Western world there have been massive changes to the shape of the labour market brought about by the disappearance of the full-time youth employment, and by the influx of mature women. So the supply side ‘precariousness’ of work is socio-culturally constructed by individuals – as a disadvantage for some (early school leavers especially), but as an advantage for others, such as students and mothers.

However, Murtough and Waite state (citing several empirical studies): ‘Past quantitative research suggests that demand side factors have been more important than supply side issues in explaining the growth of casuals’ (p. 27). Precarious employment, on this basis, is then a demand-side construction by a group – that is, employers – as the result of decisions which they make in the light of their common interest in productivity.

So there are at least two versions of employability. In the more prominent, the demand-side version, employers construct a story based implicitly on human capital theory. This is readily apparent when surveys of employers result in lists of desirable characteristics for individual employees – what makes for their greater ‘employability’ – in the policy context of the (often simultaneous) claim that the labour market is deficient in supplying workers with these desiderata. The goal-posts of employability keep shifting, so categories of employment rise and subside. But we have seen that for many individuals, their employability arises in the confluence of several overlapping and age-situational socio-cultural allegiances, such as students, parents, or ethnic groups. Here, social capital theory offers a more cohesive and realistic account of the organic nature of many individuals’ experiences. We can explore this further by looking at the socio-cultural construction of generic skills. This is a policy follow-on from employability as such. As was suggested, employers make no bones about the human capital needs they wish to be met readily by what they consider efficient education and training systems.

4.11 Generic skills for employability

One prominent list of desirable skills (and their deficiency) is the Department of Education, Training and Youth Affairs (DETYA) Research Report *Employer*

Satisfaction with Graduate Skills (2000). This is an Australian report, but similar lists are available across Western democracies. It is worth noting that ‘the overall performance of new graduates employed appears to be reasonable, neither particularly low nor high...[but] a large proportion of applicants for positions are considered unsuitable, even for other positions within the organisation’ (p. vii). The Report concludes that, taking into account the relative importance of the skills required to the employers themselves, the greatest skill deficiencies among new graduates were perceived to be in the areas of:

- creativity and flair
- oral business communications
- problem-solving.

Successful applicants were deficient in these ways, and, as you would expect, unsuccessful applicants also lacked these skills but in addition lacked the ‘capacity for independent and critical thinking’. The Report notes that ‘this skill is of great importance to employers, and seems to be the skill that most sets apart successful from unsuccessful applicants: in other words, employers value this skill, and can find it but it is rare’ (p. viii).

What is curious here is the assumption that these social and cognitive capabilities are skills amenable to performance indicators, rather than dispositions of character, called forth by the variety of circumstances and challenges of life. Creativity, for example, requires considerable confidence, breadth of knowledge and technique and even a relaxed frame of mind. Where employers can find this ‘skill’, it is presumably on the basis of inference from other areas of an applicant’s life. Yet it is presented as a ‘deficiency’ of the applicant when the employers cannot infer it from the evidence in front of them: and in the case of ‘independent and critical thinking’, this failure on the employer’s part to make the inference can cost an applicant the job.

In lists like this, ‘skilltalk’ has reached the outer limits of credibility, because such talk assumes a unitary bundling of human capacities, publicly evident in performance indicators, devoid of contextual significance. Yet talk of skill deficiencies in the context of ‘high performance’ and increasingly ‘precarious’ employment masks the real and legitimate interest employers have in graduates: the capacity to be grafted onto the culture of their organisation, and to transform it productively. This requires ‘insider’ experience, and the heightened capacity to ‘read’ that culture. Now some educationalists are developing a more sophisticated version of graduate capabilities, and we turn to this shortly when we examine the ‘relational’ attainment of generic capabilities.

We do not have any disagreement with the common Western policy pre-occupation with vulnerable groups in the labour market and in the community generally. However, the assumption by human capital theory that individuals are mainly bundles of atomised and highly portable skills is a naive way of thinking about remediating employability deficiencies. The broader notion of context-specific capacities, which can be advanced through university studies, is worth investigating.

4.12 Relational generic skills

Can there be more sophisticated ways of regarding a ‘general academic education’ – in contrast to the ‘occupationally-oriented training’? Caught up in current debates on this dichotomy is the place of the arts, humanities and social science faculties in universities, since liberal arts and the humanities are based on the traditional justification that such studies instantiate both a general academic education and the development of portable skills. Given the vocationalisation of Western universities during the 1990s, it comes as no surprise that the employability of arts and humanities graduates should be itself precarious – at least in gaining entry to the labour market.

Employers’ lists of desired employability characteristics – what they most want in their employees – are, as we discussed earlier, demand-driven and underpinned by human capital theory. So the term ‘precarious employment’ carries the connotation that individuals would prefer to avoid it, and in fact are disadvantaged by the casualisation that shapes it.

Yet graduates of arts and any other university faculty are also individuals on their ways to their labour market positioning, and when they arrive at paid workplaces after graduation they are expected to show socio-culturally significant learning, such as leadership, vision, decisiveness, teamwork and self-confidence. The study of arts and humanities has normally been taken to provide the basis for developing these. And there is substantial evidence that prospective employers right across the Western world are beginning to look more and more for graduates with just such a broad background.

We argue that instead of looking for individuals who are proficient in ‘creativity and flair, oral business communications, and problem-solving’ (as employers have stated), what is especially innovative would be evidence of a graduate’s involvement in projects work and team-work during their studies and in their work life during their studies.

Instead of looking for individualistic, atomised ‘employability’, it is more sophisticated, and closer to real work life, to seek a ‘relational’ level of capability. Here, the generic ability to relate an instance of team-work or an appropriate type of communication to a specific context of work is important. Would-be lawyers, for example, should be able to distinguish between the context where legal precision and logical argument is required (say, in a courtroom) and contexts where empathy is required (say, with clients). Would-be nurses could advance their professionalism and their grasp of generic (but discipline-expressed) communicability by simulating the style required when briefing a discharged patient on their home medication tasks compared with a more empathetic pre-operative style.

This process of differentiated attainment throws the onus on the student-as-future-graduate to acquire these generic capacities, and to demand that university courses deal seriously in their acquisition. More explicit attention should be paid, then, to what in section 4.4 we identified as productive knowledge – the ability to deal with each new situation (often in ‘hot or cool action’

circumstances), by relating what is known to the new unknown, determining what to do about it, and then doing it. This 'relational' approach is basically about reading the context for its significance: there will be a diversity of contexts of practice for the new graduate. Equally there will be diversity of circumstances attendant upon employability. Creativity, problem-solving and so on make no sense as desiderata if they are sought in an atomised, de-contextualised fashion, where relationships between contexts are not the primary focus, and where differentiated attainments are not acknowledged. In postmodernity, competent teaching (or nursing or surgery) is a very site-specific attainment. Our integrated model of competence (section 3.7) is relational in this rich sense, and the learning that is best sought from that site of practice is organic.

We advocate the attainment of context-sensitive judgements in respect of communicability, team-work, creativity, critical analysis, responsibility, leadership, information literacy and so on. These involve judgements to choose appropriate behaviour in varying professional and social contexts. Our relational approach emphasises this range of socio-culturally significant experiences, and marks its contrast with excessively individualistic human capital-driven approaches to employability.

The deliberate design of learning and teaching strategies to advance this relational approach is arguably just as significant in university life as is the deliberate design of the substantive discipline or field-based studies which are the core of the graduate's clinical or technical or professional practice. Indeed, Part II of this book addresses that educational significance in detail.

4.13 Beyond human capital

The OECD (1998) provides this definition of human capital: 'the knowledge, skills and competences and other attributes embodied in individuals that are relevant to economic activity' (p. 9). Employability as a policy arena is thus constructed from, and returns to, the collective experiences of ontologically and epistemologically prior selves.

But, as we noted earlier in this chapter, the economic and social inclusion of certain groups invites a wider theorisation of what it is to be a practitioner than human capital theory, and some support for this can be found in the emergence of social capital theory. Schuller (2000) outlines the provenance of this theory in the work of Putnam in political science, Coleman in educational sociology, Fukuyama in economic history, and the World Bank. He goes on:

For the majority of writers, it is defined in terms of networks, norms and trust, and the way these allow agents and institutions to be more effective in achieving common objectives. The most common measures of social capital look at participation in various forms of civic participation.... Despite some ambiguity, social capital is generally understood as a matter of relationships, as a property of groups rather than the property of individuals.

(p. 2)

Social capital, then, starts with the ontological and epistemological priority of group relationships. It requires a relational ethic rather than an atomistic ethic, to draw two terms from the scholarship in an adjacent field, gender studies. In particular, it is helpful for theorisations of policy and context because it starts with (that is, gives ‘experiential’ priority, if we subsume the ontological, epistemological and ethical in the one notion) the value-ladenness of ‘knowledge, skills and attitudes’ insofar as these are represented in groups and networks. One’s individuality flows from membership of these groups and networks under social capital theory. Schuller continues:

For practitioners, this means paying attention to the values and practices of the networks in which their students operate, and those which they may aspire or need to enter. For policy-makers it means that merely increasing the stock of human capital in any given society will not ensure social or economic progress. It may even impede it, by further isolating some groups, who do not have access to it, and whose position is relatively further weakened by the fact that most others are gaining skills and qualifications.

(p. 4)

Practice in any socially-situated work environment will, in the light of social capital, require sensitivity to the formative nature of group membership. Given the discussion so far in this chapter, we can now affirm that:

- some groups of people (such as part-time students and some parents) will prefer casual or contract employment; moreover, the labour market in general is moving towards fluid small groups (monolithic organisations are on the way out)
- university students are influenced in their choices of studies by many factors other than narrowly vocational outcomes of courses (and arts can give the breadth and creativity now sought after in practitioners throughout the Western world)
- differentiated attainment in relational and situated work competencies is a growing feature of work life in postmodernity and should be acknowledged as a strong feature of socio-cultural contexts, having constructive implications for individuality.

Social capital recognises that people come to their work – both paid and unpaid – from somewhere else, and that they bring with them relational locations (collective ideas) which help to make them the selves they are. This socially embedded experience is the kind of thing that can also be explicitly learned, and can be taught – context-sensitive judgement is one way to re-think courses and pedagogy in universities in this regard. This is a relational aspiration, and is based as much on social capital as on human capital. Practitioners at their best are capable (i.e. have the capacity) of ‘reading’ a series of unique situations and responding accordingly, but they do so because they are constructed as practi-

tioners through their peers, professional bodies, and through specific sites – even ‘communities’ – of practice.

4.14 Social capital and social construction

Social capital theory helps us make sense of several Western policy labels which educators are under such pressure to address in their work (including the work of schools and teachers). Relationships are properties of groups – networks, alliances, franchises, associates and so on. Where the ‘knowledge economy’ or ‘lifelong learning’ or the ‘information society’ are floated as policy positions, the purpose of relationships is to connect crucial nodes in networks of institutional and organisational groupings. Relationships between employers and universities, or schools and communities or any other groups, are constructed differently as various interests coalesce, mature and dissolve. This is how society is to a large measure constructed and reconstructed. Policy positions are part of the glue that constructs social capital, and education is one such social construction that has individuals as its focus. But its very individualism (as shown by the human capital construction of the ‘employable’ individual) should not blind us to the relational experiences – our groupmindedness – which has constructed us as a certain sort of individual right from birth. Group memberships continue to mediate these selfhoods, something to which human capital theory seems oblivious.

Take as an example, the middle-aged, female worker in an inner-city manufacturing workplace, whose first language is Italian. No matter how much human capital theory makes of her individuality, and the need to ‘re-skill’ her when the shoe factory closes as a result of globalisation’s removal of local industry tariff protection, her circumstances are first and foremost socially constructed. As one of us stated some years ago:

the adult NESB [Non-English Speaking Background] person most vulnerable is the woman, because her skills may be less visible, her representation (both culturally and industrially) less forceful, her socialisation less extensive and her time less available to address these. In labour market terms, her location in labour-intensive manufacturing and retail sectors makes her livelihood precarious and her claims on social justice strategies strong but regrettably faintly heard.

(Abu Duhou, Beckett and Hampel 1993 p. 2)

To re-emphasise points made earlier in this chapter, employability for this individual is undoubtedly ‘precarious’, largely because whatever individual choices she makes are ineffective. Her productivity, in human capital terms, is nil. By contrast, her social capital – her group memberships – may be what saves her, as a person, a citizen, as a learner and so on. Her memberships of the Italian community, her family, her age cohort, and her gender affiliations will be what support her now the factory has closed. Whether policy makers want to include these nodalities in the re-construction of her employability is what is so

contentious. The really vital considerations – what constructs her precariousness – are above and beyond her, but they construct her, as an individual. And they are social, or more particularly, socio-cultural, in nature.

4.15 Liberalism and the social construction of schooling

No institution is more fixated on the construction of the individual than the school. We want to show, however, that our support for social capital theory assists in the general argument that policy and context can and should start with the social to get to the individual practitioner. Schools are like other workplaces in that they are constructed by relationships formed out of group memberships. Skills and competence, and practical proficiency in general, whether ‘employable’, ‘productive’, or ‘generic’ are only meaningful if embedded in relational constructions, as we have argued throughout. Can we find a non-individualistic approach to the purposes and practices of schooling?

Managerialist reforms to state-funded schooling, fuelled by economic rationalism and neo-liberalism, have evolved towards a Blairite ‘Third Way’. What could social capital theory contribute to this controversial policy area? One leading educational exponent of the managerial reform agenda, Caldwell (1999 p. 262) lists five ‘values for public policy’:

- choice (in provision of and access to schools, for example, arising from multiculturalism)
- quality or equity (funding which meets individual student needs irrespective of school attended)
- fraternity (meeting needs of all students ‘regardless of socioeconomic, religious, gender or other circumstance’ and which meant some schools were closed due to low enrolments arising from local demographics)
- efficiency: ‘essential if equity and fraternity are to be enhanced’, because the needs of some students will not be met where there is ‘duplication or wastefulness... in use of resources’
- economic growth (governments will no longer service large debts, nor tax to fund growth; rather, they seek to generate growth and, by implication, a diversity of other forms of funding for education and health).

These five are public policy values, which have been played out in various ways in many Western nations, and ‘[i]n Victoria, as elsewhere in Australia... [with] particular attention to efficiency and economic growth’ (p. 263). Caldwell closes by arguing that a ‘new paradigm for public policy in school education is emerging’ (p. 268), and that this paradigm

answers the public good test through the commitment of public resources, curriculum and standards frameworks, and accountability mechanisms, with the uniqueness of each school setting requiring a high level of self-

management that extends to local decisions on the allocation of resources and building the capacity of the school to meet high expectations of success for all students. This writer is hard-pressed to identify any nation that is not moving in this direction.

(p. 268)

Clearly, then, Caldwell's five 'values for public policy' are intended to range across both public and private schooling, and, in that sense, do show a sensitivity to social capital in specific sites of practice, at least initially.

However, even a cursory glance at the five values shows an almost total absence of any sensitivity to the democratic context of schooling. Diversity is ever more apparent in Western democracies like Australia, so one would expect, in any 'test' of the public good, that substantial attention be given to the political construction of the consensus required for such a test to operate. As they stand, the five 'values for public policy' focus on individualistic freedoms to pursue private goods, except for the managerial role of the state in regulating market forces and resources. In this respect they represent traditional liberalism, where democracy emerges, 'thinly', as the product of free private (that is, individualistic) choices.

Against this, we want to argue that the test of the 'public good' is more adequately conceptualised by taking seriously what Castles (1992) calls the inclusionary declaration of civil, political and social citizenship for all. Diversity is omnipresent: liberalism expects to satisfy its requirements by the operations of the educational free market. Yet it is not feasible to expect that much of the public good would survive the operations of this 'thin' democracy, while at the same time eliciting from citizens a certain democratic justification. Let us explain.

Rawls (1993), in developing a robust account of how pluralism, or diversity, can be fairly accommodated in a just society, adopts:

a constructivist view to specify the fair terms of social cooperation as given by the principles of justice agreed to by the representatives of free and equal citizens when fairly situated. The bases of this view lie in fundamental ideas of the public political culture as well as in citizens' shared principles and conceptions of practical reason.

(p. 97)

The 'public political culture' is, we argue, a substantive context for the exercise of the inclusionary citizenship which Castles wants, and within which sociocultural diversity at its most comprehensive is being played out. Rawls, however, wants to maintain a distinction between, on the one hand, a diversity of 'reasonable comprehensive doctrines' held across society, and, on the other, the 'reciprocal advantage' (p. 97) which citizens will discern will accrue to them if they assent to social cooperation in this 'thin' sense of democracy.

But this distinction collapses when a 'thicker' notion of democracy is

entertained. ‘Thick’ democracy is more overtly constructivist than Rawls (and Caldwell) would like, but it is entailed by the fact of deepening diversity, and also by the logic of Rawls’ fundamental reliance on a ‘public political culture’. We propose that the most fundamental idea at the heart of such a culture is the commitment to its continuation. In this, we echo Gutmann (1987) who argues that democracy wants to reproduce itself, and proposes tolerance and anti-discrimination as the bare bones of that overt construction. A ‘public good test’, if there is to be one, seems to fit better with ‘thick’ democracy: there are knowledge claims about the good life (and the forms of schooling which are thought to construct the good life) which should be tested in overtly democratic institutions. As Rorty (1999) states, in summarising this:

I take the point of Rawls and Habermas, as of Dewey and Peirce, to be that the epistemology suitable for such a democracy is one in which the only test of a political proposal is its ability to gain assent from people who retain radically diverse ideas about the point and meaning of human life, about the path to private perfection. The more such consensus becomes the test of a belief, the less important is the belief’s source.

(p. 173)

The ability to gain consent for public policies such as schooling invites serious consideration of social capital as a theorisation of the construction of individuality (see Beckett 2001a). Our argument, in the case of schooling as public policy, is that ‘thin’ democracy – as shown in Caldwell’s ‘Third Way’ test for the ‘public good’ – is an inadequate rationale for the provision of schooling. Given that all schools themselves are microcosms of socio-cultural diversity, the essential question is how socially constructivist they are (or ought to be) in the maintenance of the public purpose.

Rawls and other ‘thin’ liberals should acknowledge that one over-arching ‘comprehensive moral doctrine’ is democracy itself. This is the context of liberalism, which, at least in its political stance, claims assent to fair and equal participation. It is this socio-cultural context which in Western nations shapes engagement with practices right across daily life, both work and non-work, both paid work and non-paid work. Overlapping group allegiances shape us as individuals, amidst a democratic polity where we implicitly acknowledge this to be a shared experience, and one which, as Gutman pointed out, we find ourselves committed to. Thus the Western political context is the macro-setting for the know how and judgements we find ourselves undertaking in various more local, personal and particular work contexts, every day.

4.16 Constructing autonomous individuals

Our argument throughout has been for the overt recognition in policies of the formative nature of socio-cultural context. In section 4.15, we argued that this is at the heart of ‘thick’ democracy, and from which a more robust sense of indi-

viduality would flow. Thus the construction of individual autonomy is a substantive part of the political and contextual significance of practice – whether such practices be school-based, workplace-based, family-based or community-based. In all particular situations, in Western democracies, our claim is that autonomy emerges from individuals' practices, which are themselves profoundly embedded in socio-cultural norms. Democracy is the most far-reaching set of such norms, but each school, each workplace, each family and each community within a democracy will have its own more site-specific set of norms. Communities of practitioners have their peer groups to 'norm-alise' their individual practices.

Autonomy is a supportable and complex epistemological and ethical ideal for practitioners, because it enshrines their legitimate sense of freedom and agency (which chapters 2 and 3 implicitly require), thus becoming what Rawls calls a 'comprehensive moral doctrine' (the democratic context of liberalism). But it is, importantly and additionally, a political value. As Rawls (1993) himself states:

A view is autonomous, then, because... the political values of justice and public reason... are not simply presented as moral requirements, externally imposed. Nor are they required of us by other citizens whose comprehensive doctrines we do not accept. Rather, citizens can understand those values as based on their *practical reason* in union with the political conceptions of citizens as free and equal and of a society as a system of fair cooperation.

(p. 98, italics added)

Practical reasoning thus melds the moral and political significance of liberalism, in ways that fit with Rawls' idea of social union, and with what we have been emphasising as social capital. Under both terms, the significance of individual autonomy is acknowledged, but it is to be regarded as the consequences of the ontological priority of the socio-cultural. In this chapter, we have argued for an approach to policy formation which has embedded the analysis of know how and practical judgement firmly in contextually-sensitive readings of individual practitioners' circumstances.

Part II

Theorising practice

5 Introduction

Celebrating the swamp

This is a book about understanding practice, which we describe as the successful performance of work, whether paid or unpaid, of all kinds. Our claim is that practice is a rich source of learning, though this learning has gone largely unnoticed and unrewarded in traditional educational thought. Part I of this book has provided an account of the richness and complexity of everyday instances of practice. Starting with the hectic ‘hot’ action experienced minute-by-minute by many individual practitioners in the heat of work practice, Part I gradually widened its lens to describe the embodied, situated practical judgements that were found to be the central feature of practice. Taking an even wider perspective, practice was shown to be significantly shaped socio-culturally by various policies and contexts. Hence practice exhibits both global and local features.

Schön’s ‘high ground’ metaphor for research-based theory and technique is apt, not only because it contrasts with the ‘swampy lowland’ of practice, but also because it incorporates the traditional hierarchy. This hierarchy places disciplinary knowledge (exemplified in universal true propositions) at the top of the ladder. Somewhere in the middle comes practical knowledge, centred on decisions about how to live one’s life. Productive knowledge, focused on making things, is placed at the bottom. This is also a hierarchy in a second sense – an educational hierarchy with formal learning of disciplinary knowledge (codified, taught, assessed, accredited with qualifications) placed at the top, with informal learning at work, largely ignored in all its aspects, placed at the bottom. In the postmodern era when the share of manufacturing industry in economies is shrinking and knowledge production is the main ‘making’ activity, this traditional hierarchy is starting to creak more than just a little.

5.1 Theorising practice in postmodernity

The point of theorising about some phenomenon is to explain and understand that phenomenon, in the hope that we can thereby more effectively deal with it, and perhaps even improve it. In order to do so, theories often make simplifying assumptions – think of frictionless surfaces and ideal gases in physics. In the human sciences, there is even less prospect of finding a theory that deals with all aspects of a phenomenon. This will be so especially for a complex phenomenon

like human practice. There is next to no prospect of a comprehensive theory of human practice. More feasible is a variety of theories each aimed at explaining and understanding different aspects of practice (Hager 1999b p. 75). As well as there being scope for a variety of theories, it is likely that some of them will be pitched at very different levels from others. For example, there could be a theory about the role of practice in the good life, what the Ancient Greeks termed 'human flourishing'. Another might address the general features of practice. Both of these would be somewhat broader in scope than a theory about the best way to induct novices into a particular practice. Different kinds of theories operate at different levels to do different kinds of explanatory work.

What we will not be doing in the remainder of this book is trying to produce a general theory of practice. We doubt if that is even a feasible project. Instead, our theoretical focus will be on something much more specific. We are trying to explain and understand the sort of learning that occurs as people engage in broadly successful practice, learning that makes them better practitioners.

So we aim to explain and understand a limited, but in our view very important, part of practice. What does 'practice' mean for us? As was explained in section 2.2, it is certainly not merely 'technique', although technical expertise (certain sorts of skilful dexterity, involving manipulation of materials, objects, processes and ideas) is essential. Technique is a necessary but insufficient component of practice. Practice involves a richer set of phenomena: a body of knowledge, a capacity to make judgements, a sensitivity to intuition, and an awareness of the purposes of the actions are all involved in some way. Furthermore, practice is marked by a certain particularity, a feature that was usually ignored, though postmodern thought has helped to draw it to attention.

In seeking to explain and understand the learning that occurs as people engage in successful practice we will rely centrally on the notion of judgement, as signalled by the discussions of practical judgement in Part I. It should be clear at the outset that we are not claiming that the notion of making judgements exhausts practice. Nor are we sure that judgements are central to all aspects of practice. However, we are convinced that making judgements is a central holistic workplace activity that is the expression of practice-based informal learning from work. As we see it, judgements provide a powerful way to make sense of the practice-based informal learning, which, as suggested in Part I, has been overlooked by traditional educational thought. One main aim of Part II is to provide an account of why traditional educational thought neglected practice-based informal learning. Another is to describe these work judgements and the factors that facilitate them. In so doing we will be advancing a model for practice-based informal learning from work. We call this the *contiguous* model in contrast to the traditional front-end model of vocational preparation which we argue is in terminal decay.

We have tried to state carefully the scope of the theorising that will be undertaken in Part II. This is because we think that an important question in judging the worth of a theory is: 'What can it cover?' An attractive view is that the more a theory can explain the more powerful it is. Hence, proponents are usually keen

to claim maximum scope of explanation for their favoured theories. Caution in accepting such claims is advisable, as the following discussion will show. Our view is that, in the human and social sciences, it is usually the case that the wider the scope of a theory, the more its explanatory power declines. Thus we would be sceptical of any theory that claimed to explain all practice via a single factor.

This restricted explanatory and predictive power of broader human and social science theories is well illustrated by monotheries with their large reliance on single factor explanation, such as the unconscious mind, inferiority feelings, or economic relations. History points to the limited success of such monotheries in the human and social sciences. Popper (1963) famously critiqued monotheries in the social sciences, targeting elaborations of the theories of Freud, Adler and Marx as having been developed to the stage where they were no longer testable. According to Popper, they had been turned into post hoc theories, in that no actual state of affairs in the world could be inconsistent with them. Thus, these theories can 'explain' anything that happens once it has happened. Contrasting them with theories that make testable, specific predictions and are then modified on the basis of how they fare in the testing, Popper concluded that a theory that explains everything explains nothing. If Popper is right about this, then theories that at first sight seem to have very wide scope may actually have none. The question needs to be asked whether Popper's criticisms are applicable to more recently fashionable theories that involve single factor explanatory devices, such as human capital, power-knowledge, and discourse. The way that some enthusiasts use these concepts in their writings, they appear to underpin theories that are compatible with everything. If so, this would tell against the worth of such a theory.

The influence of monotheries and single-factor explanations has been very strong in educational thought. In the theorisation of intelligence, the influence of single factor conceptualisations (such as 'g') has been profound. As will be shown in later chapters, though there are many types of knowledge and many types of learning, the influence of Cartesianism on education has been such that one type of knowledge has been espoused as the ideal to which all other types should aspire. The result has been the attempt to reduce other types of knowledge to this one kind, thereby marginalising practice-based informal learning from work. As we will show, the education system has been structured around the types of learning approved by this single-factor understanding of knowledge. The influence of this can be seen also in the focus on clear cut problems with single correct answers in formal educational institutions (once again, more on this later).

Thus, as Schön has stressed, the high ground of formal education institutions is home territory for single factor explanations and the reduction of more complex issues to tidy linear problems. In the process, the swamp – that features complex, messy, shifting, undefined problem situations – is drained and reconceptualised in terms of the tidy single-factor solutions of the high ground. The difficulty is that in the process, what was distinctive and important about the swamp problem situation may be lost. In our view, traditional educational

thought has done something very like this to practice-based informal learning from work.

Like us, Schön is concerned to understand and celebrate the swamp on its own terms. However, we believe that we should extend his work to get away from his continuing links with traditional educational thought. As we see it, Schön's theory of reflective practice is both too wide and too narrow. It is too wide in that Schön relies on reflection to explain too much. In this he is a traditional single factor theorist. On the other hand, his theory of reflective practice is too narrow, in that reflection is essentially a cognitive concept. In contrast, we believe that reflection cannot do all the work required of it even at the level of cognition. In addition, it leaves out the non-cognitive aspects of practice-based informal learning from work, aspects that we will argue are crucial for any convincing understanding of the phenomenon. It is true that Schön builds artistry into his theory, but in a way that makes it dependent on reflection. Thus we believe that there is a lingering Cartesianism evident in Schön's work. Whereas Schön shows the continuing influence of Descartes by focusing too much on the rational, cognitive aspects of practice, we believe that the swamp is even messier than he conceived. There is no alternative to living with the simultaneous operation of many factors. After all, we are in the era of postmodernity.

5.2 Key concepts

A main thrust of Part II will be to explain why practice, and the rich learning that accompanies it, have been largely ignored by traditional educational thought and practice. While Schön's concept of technical rationality is part of the story, we will show that there is much more to it than that. It will be argued that traditional educational thought and practice have been shaped by a set of enduring dualisms, together with the 'front-end' model of vocational preparation that these dualisms underpinned. Hand in hand with these has been the influential Cartesian paradigm of learning. Note that in this book we use the term 'paradigm' in the strong sense (Kuhn 1962) of the set of general theoretical assumptions and principles that shape the thought and practice of a particular community, in this case the education community. So the emerging paradigm that we go on to describe represents something much more radical than a mere change of fashion.

The understanding and recognition of practice-based informal learning from work will only occur if the antiquated concepts of traditional educational thought and practice are displaced. We argue that in the era of postmodernity, there is some chance of this happening. We describe an emerging paradigm of learning based on dissolution of the enduring dualisms. We also propose a 'contiguous' model of vocational preparation. In this alternative model of vocational preparation, learning and work are intertwined in various formal and informal admixtures. The notion of judgement is at the heart of our theorising. Our account of judgement will draw on and extend a number of concepts and ideas that were introduced in Part I. Prominent amongst these are organic

learning, anticipative action and feedforwardness, and intentionality and agency in embodied, embedded practice.

A foretaste of where the arguments are heading is summarised as follows:

Cartesian learner vs. Organic learner

Cartesian learner

Chapter 6

Essentially a mind
Rational
A unity, singular
Unchanging self, integrated, fixed
Being
Private
Solitary, self-contained
Independent
Spectator, apart from the world
Autonomous

Organic learner

Chapters 7 and 9

An embodied person
Organic, whole person
Evolving, in flux
Evolving self
Becoming, process
Public
Social, sociocentric
Interdependent
Actor, agent immersed in the world
Socially shaped autonomy

6 Practice at work and informal learning

We begin our conceptualisation of practice as the successful performance of work by showing the intimate connection of practice with informal learning. Establishing the indissoluble link between practice and informal learning is the main business of this chapter. However, before this, it will be necessary to demonstrate the subordinate and inferior role that informal learning – and, hence, practice – have played within the citadel of learning as it has been constructed in industrialised societies. We shall argue that educational thought has been dominated by a largely unquestioned assumption that the most valuable learning is of one particular kind. Other forms of learning have been evaluated by how well they approximate to this favoured form of learning. We call this favoured form of learning the ‘standard paradigm of learning’. Our rejection of this paradigm points to the longer term implication for Part II that what is needed for practice to gain its rightful share of attention is a reconceptualisation of education and of learning.

6.1 The standard paradigm of learning

The term ‘learning’ is used commonly in very diverse ways, perhaps reflecting widespread recognition that there are many different sorts of learning. The vagueness and ambiguity of the term ‘learning’ is increased by the fact that it is commonly employed in both a *task* sense and an *achievement* sense (Winch 1998 p. 1). Learning in the task sense refers to trying or attempting to learn, putting the focus on the *process* of learning. Learning in the achievement sense refers to successful learning, putting the focus on the *product* or *outcome* of learning. Processes of learning are many and varied. Some involve teaching, but many do not. Some involve bitter experience, others can be joyful. Likewise, products of learning are many and varied, including examples as diverse as knowledge, know how, competence, skills, values and norms.

Nevertheless, despite this diversity of both process and product, educational thought has been dominated by the largely unquestioned assumption that the most valuable learning is of just one kind. Thus other forms of learning have been evaluated by how well they approximate to this favoured form of learning, the standard paradigm of learning.

Major assumptions that give the standard paradigm of learning its distinctive character include:

1 Learners as isolated individual minds For the standard paradigm, the basic image for understanding learning is that of an individual human mind steadily being stocked with ideas. The focus of learning as a process is on circumstances that favour the acquisition of ideas by minds. The focus of learning as a product is on the stock of accumulated ideas that constitute a well-furnished mind, the structure of those ideas, how various ideas relate to one another, and so on. In emphasising learning by minds as the most valuable form of learning, the standard paradigm shows its allegiance to mind/body dualistic understandings of human beings as inherited from classical Greek thought and from Descartes. The effect of elevating mind over body as the centre of the most valuable kind of learning is to make learning an essentially solitary process, an individualistic – even narcissistic – process, where the learner becomes a spectator aloof from the world.

2 The essential interiority of all mental events and activities As Toulmin (1999 p. 56) puts it, the standard paradigm of learning assumes that ‘the supposed *interiority* of mental life is an inescapable feature of the natural processes in our brain and central nervous system’. On this view, human sense organs are instruments that can add content to mental life, but are themselves part of the ‘outer’ world of the body, not of the ‘inner’ mental world. So the most valuable form of learning is focused on thinking (what minds do), rather than action in the world (what bodies do) (Winch 1998 p. 63).

So far, the contents of minds have been characterised by the vague term ‘ideas’. Major examples are concepts and propositions as objects of thought. For the standard paradigm, meanings of concepts are established via the activity of individual minds. Concepts in turn are combined in propositions that represent things and states of affairs in the world (Winch 1998 p. 63 ff). So the individual solitary mind becomes a spectator that is not itself in the world, but is able to represent the world to itself via propositions. Since this mind is in effect in a different world, the same is so for the propositions. Thus we get the notion of propositions as timeless universal entities.

Likewise, learning is a change in the contents of an individual mind: that is, a change in beliefs. Knowledge is viewed as a particular kind of belief, viz. justified true belief. Since belief is a mental state or property, learning is a change of property of a person (mind). So to have acquired particular learning is for the mind to have the right properties. But properties, like propositions, have been regarded as universals, i.e. the same in each instance. Hence, the notion of knowledge as universal, true propositions is linked to the traditional focus of education according to the standard paradigm of learning. So quite a lot follows from the essential interiority of mental events.

3 The transparency of learning As Winch points out, ‘It is natural for us to talk about learning as if we recognise that we have both a capacity to learn and a

capacity to bring to mind what has been learned' (1998 p. 19). This second capacity trades on the image of the mind as the home of clear and distinct ideas. If we have really learnt well, we will be able to bring the learning to mind. An inability to do so is a clear indicator that learning has been imperfect or unsuccessful. This also implies that, for the standard paradigm of learning, non-transparent learning (tacit knowledge, informal learning, etc.) is either an aberration or a second rate kind of learning.

It follows from Points 1 to 3 in combination that the best learning consists of abstract ideas (concepts or propositions) that are context-independent (universal) and transparent to thought. This immediately places such learning in a dichotomous relationship with learning that has very different characteristics, such as the skill learning of apprentices which is typically concrete (rather than abstract), context dependent (rather than context independent), and somewhat intuitive and tacit (rather than transparent). Learning with these characteristics is thereby consigned to an inferior status in relation to the best learning.

The main implications of the standard paradigm of learning can be summarised as follows:

- the best learning resides in individual minds not bodies
- the best learning is propositional (true, false; more certain, less certain)
- the best learning can be expressed verbally and written down in books etc.
- the acquisition of the best learning alters minds not bodies
- such learning can be applied via bodies to alter the external world.

6.1.1 Influences of the standard paradigm of learning

These implications of the standard paradigm of learning have strongly influenced academic processes concerning selection of learners, what is learnt, how it is learnt, and how learning is demonstrated. The following are typical in educational systems:

- Selection of Students: the admission criteria are based overwhelmingly on individual performance on written tests of propositional knowledge which, in effect, test the individual's mental capacity.
- Selection of Curriculum: the course content is overwhelmingly propositional knowledge, logically ordered via disciplines and subjects; any non-propositional learning, such as laboratory skills, is driven by the propositional (to gain valid raw data that can be turned into true propositions).
- Selection of Teaching Methods: the major focus is on presentation of verbal and written propositions for individual student acquisition and understanding, hence the use of lectures, tutorials and textbooks.
- Selection of Assessment/Progression Methods: learning is demonstrated by individuals reproducing verbal or written propositions in appropriate combinations in response to set questions in examinations and written

assignments, and there is a focus on universal, context free knowledge, with numbers and grading to quantify the amount of learning demonstrated.

These academic control processes have significantly shaped what we call the *front-end model* of occupational preparation. We 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. This model is called 'front-end' because it implies that all of the learning that is needed for a lifetime of practice has been completed. The front-end model has been dominant in vocational preparation of all kinds. This is most obvious in professional and sub-professional occupations where a period of some years study in a formal educational institution, such as a university, is typically a prerequisite for entry into the occupation. However, the front-end model has been influential also in the area of the trades and other skilled occupations where there has been more recognition of the importance of on-the-job learning for novices. In these occupations a mandatory period of formal education or training has been common, and is becoming even more so. Thus, in the recent past, approaches to vocational preparation have nearly always centred around formal and structured learning in classrooms and training settings. In all front-end vocational preparation courses the strong influence of the above academic control processes will be evident.

6.1.2 Problems for the standard paradigm of learning

There are many difficulties that have been attributed to the standard paradigm. Some of the main ones are:

1 From its assumption that the most valuable learning is of this particular kind come dichotomies and hierarchies that in turn have created intractable problems of their own. An example is the theory/practice account of workplace performance/practice. If the most valuable learning resides in minds that are essentially passive spectators, then this must be the starting point for understanding performances of all kinds that are significantly cognitive. Hence the claim that such performances are somehow applications of the valuable learning that derives from spectator minds. As long ago as 1949, Ryle pointed out the futility of this view which effectively seeks to reduce practice to theory. However, such theory/practice accounts of performance remain common today, though they are increasingly seen to be implausible. These increasing doubts have been fuelled by research on expertise and the rise of the knowledge society, both of which emphasise the creation of valuable knowledge during the performance of work; that is, not all valuable knowledge is the domain of the passive spectator. This has been accompanied by increasing breakdown of the front-end model of

occupational preparation. These dichotomies will be discussed further in the next chapter.

2 It offers no ‘convincing account of the relationship between “knowledge” as the possession of individuals and “knowledge” as the collective property of communities of “knowers”’ (Toulmin 1999 p. 54). Likewise the assumption that meaning is established via individual minds creates problem of accounting for collective knowledge (p. 55). Overall, the problems discussed in this and the above point can be traced to what Toulmin dubs the ‘inner-outer problem’ (p. 57).

3 Its assumption that the most valuable learning is transparent has been challenged. For example, Winch (1998 p. 19) argues that knowledge is largely dispositional in Rylean terms, thereby taking the central focus away from transparent propositions in minds. Likewise, there is the claim, taken up in section 7.9.4, that abilities or capacities are presupposed by other forms of learning (Passmore 1980, Winch 1998 p. 18).

However, from our immediate perspective, the main problem is that the standard paradigm of learning leads to inadequate and dismissive accounts of practice and its associated informal learning. But such has been the influence of the standard paradigm of learning that these deficiencies have largely been ignored until recently. This has started to change with the current growing interest in practice and informal learning.

6.2 The emergence of practice-based learning at work as the front-end model collapses

Though both practice at work and informal learning were starting to gain significant attention as the twentieth century drew to its close, they have been, and continue to be, topics without a settled home. They are topics that do not belong obviously to any of the traditional subject disciplines. Rather, they are typical interdisciplinary topics which can be viewed, and have been viewed, from the perspective of a variety of disciplines and fields, such as sociology, cognitive psychology, philosophy, management theory, economics and learning theory. As well, there are several significant literatures which are arguably relevant to an understanding of practice and informal learning, even though their main foci are somewhat different. These include research on the nature of expertise, on workplace performance, and on situated learning. Hence, the development of research understandings of practice and informal workplace learning will require initially a convergence and synthesis of rather diverse literatures.

Of course, learning is already the concern of countless writings in the field of education. But the overwhelming focus of the education literature is on formal classroom learning based on the standard paradigm of learning. This is also the main focus of writings about learning in the vocational education and training sector. In both cases, these literatures are dominated by the standard paradigm of learning and its associated assumptions. On the other hand, writings that specifi-

cally address workplace practice are not especially illuminating about the learning that occurs during such practice. These trends highlight the homelessness of practice and informal workplace learning as topics for study and research. The deeper reasons for this homelessness will be further spelt out during the course of this chapter.

Practice as the basis of learning at work, which has been the topic of Part I of this book, can be regarded as a new beast in the educational landscape. However, it is not a recent arrival: it has been there all along without being noticed. Practice, and the informal learning that accompanies it, have gone largely unnoticed because they do not fit easily into what has been the dominant educational paradigm. However, we maintain that the reasons for their not fitting into the dominant educational paradigm have more to do with the problematic nature of the paradigm itself than they do with practice and informal learning at work lacking genuinely educational features.

At the same time as practice-based learning at work is suddenly receiving prominent notice, one of the major planks of the dominant educational paradigm, viz. the front-end model, is showing clear signs of collapsing. This is no coincidence: practice-based learning at work is but one of a cluster of issues that have come to increasingly prominent attention in recent times, heralding the beginnings of a rival model to the once dominant front-end model. At the same time, precisely because the front-end model is perceived increasingly to be unsatisfactory for the present era, people are suddenly looking for alternatives and thereby noticing practice-based workplace learning and other matters that the front-end model left out of the picture.

6.3 Increasing problems for the front-end model

The front-end model, as outlined in section 6.1, has been the target of much recent criticism. Three main sets of doubts can be seen as signalling a sharp decline in confidence in the front-end model. For some people, these doubts are viewed as internal problems for a model that has served us well; such people seek to refurbish the front-end model. For others, the problems are external, and signal that the model itself is no longer suitable for a new and increasingly unstable environment; they seek a new model.

6.3.1 Doubts generated by perceived failures of the front-end model

Entry to the professions has always been a classic example of the operation of the front-end model. During the 1990s there has been growing international public dissatisfaction with the professions, and with the performance of particular professionals. This has been fuelled by an increased willingness of the media to expose professional incompetence and malpractice, by the increasing knowledge and sophistication of consumers, and by general demands in society for greater accountability. The professions have reacted in various ways: they have

increased continuing professional education requirements, implemented more stringent scrutiny of their processes for assessment and certification of professionals, and reformed assessment procedures in professional preparation courses. All of these, especially the first, have served to raise doubts as to whether the front-end model is the best one.

Doubts about the efficacy of the front-end model are not confined to the professions. In the last decade, various countries (including Britain, Australia, New Zealand and Canada) have introduced occupational competency standards. These represent an attempt to specify the main attributes and skills required in the competent performance of an occupation. One of the clear lessons from this experience is that vocational preparation courses are unable to produce graduates who fully meet the competency standards (Hager 1998). At best, the front-end model produces novices who require significant on-the-job learning to become workplace competent. Typically, this limitation of the front-end model has been ignored, though in some cases it has received at least tacit recognition. It is surely no accident that some, but not all, of the professions have long required that completion of the formal course be followed by an internship, a professional year, a probationary year, and the like. Similarly, the traditional path from apprentice to fully qualified tradesperson can be seen as recognising the ongoing on-the-job learning that high level performance requires. In a typical apprenticeship pattern, the formal vocational education component is completed in the early years, with the later years being fully devoted to workplace practice, at the end of which the apprentice becomes a fully qualified tradesperson. While people sometimes criticise this last part of the apprenticeship as 'time-serving', such a critique of poorly-planned arrangements must not be allowed to obscure the significant role that informal on-the-job learning plays in all apprenticeships.

Two current developments in higher education can be seen as clear cases of a loss of confidence in the front-end model in the era of postmodernity. These are the inauguration of work-based learning degrees and the proliferation of professional doctorates in areas such as law, education and business. Work-based learning is a new mode of mounting university study in which the student's work becomes a main basis of the curriculum (Boud and Solomon 2001). Typically, students follow a learning plan that derives from their own needs as well as those of the workplace. This plan is negotiated between the student, the employer and the university staff. Thus each student follows a unique learning plan. Learning occurs mostly from workplace projects, and the learning outcomes are assessed by university staff against levels and standards that are necessarily transdisciplinary. As well, the level of the award is usually determined by the nature of the learning undertaken and the level of the learner's current competence, rather than by the nature of their existing paper qualifications. (However, there are difficulties in recognising the informal learning components of current competence – see Hager 1997 pp. 24–5). Clearly, work-based learning degrees are giving academic recognition to types of learning that cannot occur under the front-end model. To that extent, they acknowledge the insufficiency of the front-end model of vocational preparation.

Unlike the Doctor of Philosophy degree which is usually undertaken at the start of a research career (hence, reflecting the front-end model), professional doctorates are aimed at successful senior practitioners rather than neophyte researchers. Whereas the Doctor of Philosophy focuses on advancing knowledge ('pure' research), the professional doctorate aims to apply knowledge to improvement of practice (see, for example, Brennan 1998). While such distinctions can be debated, the common requirement for admission to professional doctorates – that candidates have significant professional practice experience – recognises the importance of the learning that has occurred after entry to the occupation. Hence, the rise of the professional doctorate represents further acknowledgement of the insufficiency of the front-end model of vocational preparation.

One notable feature of these two current developments in higher education is that each is being implemented without its being very well theorised. In both cases, there has been an outbreak of major theoretical discussion only some years after implementation of the initiative. This lack of strongly grounded theorisations of replacements for the front-end model is discussed further in sections 6.4 and more fully in section 7.4. Meanwhile the emergence of such replacements is indicative of the continuing breakdown of the front-end model.

6.3.2 Doubts about the received understanding of the nature of workplace practice

A prominent common sense assumption underpinning the front-end model is that the theories taught in the formal course subsequently play a major role in workplace performance as practitioners use them to analyse and solve the problems that they encounter in their daily practice. Various writers on the preparation of professionals, including most notably Schön (1983), have drawn attention to the inadequacy of this 'common sense' assumption. Schön calls this particular assumption 'technical rationality', which he characterises as the view that professionals need to have command of a body of disciplinary knowledge, mostly scientific, which they then draw upon to analyse and solve the various problems that they encounter in their daily practice. He has pointed out that this approach does not fit very well with what is known about the actual practice of professionals. For one thing, it is typical of real life practice that ready-made problems do not simply present themselves to the practitioner. A major role of professionals is to identify what the problems are in a given set of circumstances.

Reflecting the technical rationality assumption, typical cases of the front-end model of professional education display two prominent curriculum emphases: knowledge acquisition, and practice at applying the knowledge to professional problems. Thus the front-end model assumes that practitioners will transfer and apply to the workplace their prior success in acquiring both a systematic theoretical education and some general problem-solving strategies.

Even without the technical rationality critique, the front-end model can be seen as a fairly hit-and-miss affair in its own terms. The extent of transferability and application seem to depend on the cognate proximity of the workplace to

the intellectual core of the formal learning which preceded workplace entry. Sometimes that proximity is ideally regarded as the closer the better, such that better work in banking, for example, is underpinned by a Bachelor of Commerce preparation rather than a Bachelor of Arts degree with philosophy honours. Sometimes the opposite is ideally regarded, such as for employment in the diplomatic corps, or even in the public sector. Thus there has been, traditionally, a spectrum of beliefs about the best model of transfer and application. Little wonder, then, that in recent years the nature of professional practice and ways to improve the induction of novices into it have become major concerns.

The critique of technical rationality has the effect of raising questions about the types of knowledge that practitioners actually require. These questions have been sharpened further by debates about whether or not competency or performance standards can incorporate knowledge adequately. Western culture has dictated that universities are the knowledge creation and development centres of society. In educational thought this assumption has been regarded as self-evident. The vocational education and training sector has been characterised as being one designed for knowledge users as opposed to knowledge producers. However, the emerging rhetoric suggests that the workplace of the future is one which will also be a knowledge creation and development site (as was illustrated in chapter 4). This opinion has reopened an age old debate concerning the relationship between theoreticians and practitioners. The Socratic elevation of the theorist over the practitioner has dominated the relationship between the two groups within our culture. The result of this is that practice-based knowledge and the knowledge developed through formal education exist independently of one another and each is relatively unrecognised by those in the other domain. Not only are large areas of know how therefore frequently omitted from educational programs, but, where such know how is found within educational programs, it is usually described and codified differently. Practice based know how is, in itself, often imprecise, implicit in nature, and contextualised. It is therefore difficult to explain. On the other hand, the knowledge base in education programs consists of knowledge which lends itself to codification and generalisability. Overall, this appears to be the position in both professional and non-professional situations (Eraut 1994, Evans and Butler 1992).

The upshot of these developments is an increasing openness to the idea that the role of knowledge in the workplace is in need of reconceptualisation. However, while doubts about the front-end model occasioned by its reliance on technical rationality have been influential, they have not so far proved to be decisive. As discussed in the next sections of this chapter, this is because, although many alternatives to technical rationality have been proposed to account for workplace practice, none of these attempts has so far gained widespread assent.

6.3.3 Doubts about the capacity of the front-end model to deal with rapid change

Although it is something of a cliché that the current era is characterised by an

unprecedented rapid and accelerating change, the very real impact of this trend on work and on vocational preparation courses cannot be ignored. It is a very significant factor in the current debate about the nature of workplace practice and ways to improve it. One clear effect of the rapid and accelerating change of the current era has been to place pressure on the front-end approach to occupational education. More and more, a formal two, three or four year course at the start of a career is seen merely as the necessary foundation for the early years of practice, rather than as the sufficient basis for a lifetime of practice. Hence the increasing interest in lifelong learning as a guiding principle for occupational education. Even if the traditional front-end model of occupational preparation had not attracted widespread dissatisfaction due to the two kinds of doubt discussed above, it is arguable that it could not have survived unscathed in an era of rapid change.

The summation of these three kinds of doubt can lead to two different responses. They can be viewed as internal doubts about the front-end model, requiring that steps be taken to renovate the model so as to overcome the doubts. Alternatively, a new model can be sought to replace the front-end model. The latter is the main focus of this book, particularly the remaining sections. However, at this point it is worthwhile giving some brief consideration to attempts to renovate the front-end model in response to the three kinds of doubt just outlined.

6.4 Responses to pressure on the front-end model by its proponents

Doubts about how well the front-end model works in practice have stimulated various responses by its proponents. As noted above, one response is to reform course assessment procedures. While there is little doubt that assessment procedures can be improved, this response errs, in our opinion, by locating the problem in the wrong place. The fault lies with the fundamental nature of the model itself, as subsequent sections will argue. A related response is to seek to make much more explicit than has previously been the case a variety of connections between course content and processes and the actual practice of the occupation. This has taken many forms, including seeking to turn students into reflective practitioners, requiring them to keep reflective journals, revamping the practicum component of the course, and changing the course into a problem-based or case-based learning mode (e.g. Boud and Feletti 1991).

Yet another response has been to increase the continuing professional education (CPE) requirements for practitioners. For example in some jurisdictions, lawyers need to complete a certain number of hours of CPE annually in order to maintain their right to practice. A related idea is to have an expiry date on occupational qualifications. If holders of such qualifications do not complete further appropriate courses within a specified time-frame, they are deemed to be no longer qualified for the occupation. Although proponents of these last two

reforms often view them as improvements to the front-end model, we see them as an admission of the failure of this model and of the need for a replacement. These responses in effect acknowledge that the front-end model suffices only to start novices in an occupation. They accept that the attainment and maintenance of proficiency requires something else. This is what our alternative model will provide in a more systematic way than ad hoc prescriptions of 'x hours of mandatory CPE annually'.

The various responses that seek to make much more explicit connections between course content and processes and the actual practice of the occupation are interesting. In many cases they have led to significant improvements in courses. However, for reasons that will become apparent in later sections, we believe that, even so, the front-end model retains its limitations. Hence these improved courses are no substitute for a better model of occupational education. In addition, there is evidence that initiatives designed to make more explicit connections between course content and processes and the actual practice of the occupation often degenerate into ineffective examples of technical rationality. This probably reflects the fact that, for students and novices, opportunities to engage in the realities of actual practice, and all that that entails, are usually limited. An instance of the degeneration of well-intentioned reforms is provided by the widespread incorporation of Schön's 'reflecting-in-action' into teacher education courses. The problem, as Calderhead (1989 p. 46) points out, is that '[r]eflective teaching has become a slogan, disguising numerous practices and offering a variety of idealised models for the training of teachers'. An illustration of the aptness of Calderhead's claim is provided by Tremmel (1993 p. 439) who outlines examples of attempts in teacher education courses to circumscribe Schön's 'reflecting-in-action' into standardised stepwise procedures to be learnt and applied by novices. Here the very technical rationality that Schön is attacking has been deployed as a means of reducing his ideas to a routine formula.

Doubts about received understandings of the nature of professional practice, and hence about the theoretical basis of the front-end model itself, have not been enough to convince everyone of the need for an alternative model. This is so because, while the front-end model is founded on the dubious theory/practice view of the nature of professional practice, no rival theory of the nature of professional practice has gained sufficient support to replace the theory/practice view. For instance, Schön's well known theory of 'reflecting-in-action' has been widely influential, not least in attempts to revivify the front-end model by incorporating the practice of reflection into it. However, there has also been an increasing range of criticisms of Schön's work and its influence. A major criticism is that it is much clearer what Schön is against than what he is for. His proposal for 'reflecting-in-action' is charged with being too vague. Gilroy (1993) challenges it on general epistemological grounds. Beckett (1996) goes further and questions the existence of 'reflecting-in-action', particularly in those professions where the action is typically 'hot', where the 'pressure for action is immediate' (Eraut 1985 p. 128) as discussed in chapter 2. This includes much of the work of

teachers, surgeons, lawyers and nurses, as against the ‘cooler’ work of a lawyer preparing a brief, of an architect developing a design, or of a doctor in a consulting room. Beckett’s point is that while Schön’s ‘reflecting-in-action’ might appear to have some plausibility as an account of these latter cases, this concept is simply inappropriate for ‘hot’ action situations in professional practice. We look to anticipative action (outlined in chapter 3) as a more explanatory concept for these cases.

This failure of Schön’s theory of professional practice to gain widespread assent is shared by the many other available theories (Hager 1996b). Hence the present situation is that while various theories offer interesting insights into the nature of occupational and professional practice, our overall understanding of this important topic is still rather primitive. Some main examples of these alternative theories and their perceived limitations are outlined in the next chapter (section 7.7). So we are left in an unsatisfactory situation where, though there is widespread questioning of the front-end model of occupational preparation, and its underpinning theory/practice view, these at least have the advantages of being familiar and common-sensical compared with alternatives that are all novel and still somewhat dubious.

6.5 The lifelong learning and generic skills responses

Those who seek to renovate the front-end model have responded positively to the third doubt about this traditional model, that is the doubt about its capacity to produce graduates who deal effectively with change. This has led, as noted above, to a strong interest in the concepts of lifelong education and lifelong learning by those seeking to renovate the front-end model. As was discussed in chapter 1, one of the attractions of lifelong learning for policy-makers is that it conceives of the learner as a whole person, not just as a disembodied mind. The idea is that if the course can be altered in such a way that it produces graduates with the capacities required to be effective lifelong learners, then the front-end model is saved.

The concept of lifelong education came to major prominence in the late 1960s when it was proposed by both UNESCO (‘lifelong learning’) and the Council of Europe (*education permanente*) as the ‘master concept’ for ensuring that educational opportunities were spread over the whole of a person’s lifetime. The UNESCO position saw ‘lifelong education as involving a fundamental transformation of society, so that the whole of society becomes a learning resource for each individual’ (Cropley 1979 p. 105). The philosophical basis of the UNESCO position was one that saw the society of the future as a scientific humanist learning society. Well organised lifelong education would enable all citizens to participate fully in this scientific humanism (UNESCO 1972). The Council of Europe’s focus was more on the role of cultural policy in changing society. They saw *education permanente* as a means of ‘preserving and renewing’ the European cultural heritage and, at the same time, ‘as a strategy for promoting European cultural integration’ (Kallen 1979 p. 51). Lifelong education is also significantly

connected to the different, but related OECD concept of recurrent education (for details see Kallen 1979).

Despite its humanistic origins, the concept of lifelong education received wide criticism and rejection from many educational circles in the 1970s and largely sank into obscurity during the 1980s. Now that these concepts sit well with fashionable economic agendas in the post-1990s era of rapid change, the idea of lifelong learning is showing a marked return to favour. A typical characterisation of lifelong learning is the following by the European Lifelong Learning Initiative:

Lifelong learning is a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment in all roles, circumstances and environments.

(World Initiative on Lifelong Learning 1995 p. 5)

While some aspects of this definition might be challenged for their underpinning ideological assumptions, the overall thrust has had very influential support. The OECD has asserted that:

Lifelong learning will be essential for everyone as we move into the 21st century and has to be made accessible for all.

(OECD 1996 p. 21)

UNESCO stresses that while lifelong learning is obviously very significant for work, its scope needs to be seen as much broader than that:

Not only must [lifelong learning] adapt to changes in the nature of work, but it must also constitute a continuous process of forming whole human beings – their knowledge and aptitudes as well as the critical facility and ability to act.

(UNESCO 1996 p. 1)

This international enthusiasm for lifelong learning has been accompanied by an interest in the generic skills or attributes that formal courses, including vocational ones, need to develop in their graduates in order for them to become effective lifelong learners. In developing this approach, Candy, Crebert and O'Leary (1994) proposed the following 'Profile of the lifelong learner' as a basis for reform of undergraduate education so that graduates will be equipped to become effective lifelong learners:

An inquiring mind

- a love of learning

- a sense of curiosity and question asking
- a critical spirit
- comprehension monitoring and self-evaluation.

Helicopter vision

- a sense of the interconnectedness of fields
- an awareness of how knowledge is created in at least one field of study, and an understanding of the methodological and substantive limitations of that field
- breadth of vision.

Information literacy

- knowledge of major current sources available in at least one field of study
- ability to frame researchable questions in at least one field of study
- ability to locate, evaluate, manage, and use information in a range of contexts
- ability to retrieve information using a variety of media
- ability to decode information in a variety of forms: written, statistical, graphs, charts, diagrams and tables
- critical evaluation of information.

A sense of personal agency

- a positive concept of oneself as capable and autonomous
- self-organisation skills (time management, goal-setting, etc.).

A repertoire of learning skills

- knowledge of one's own strengths, weaknesses and preferred learning style
- range of strategies for learning in whatever context one finds oneself
- an understanding of the differences between surface and deep level learning.

(Candy, Crebert and O'Leary 1994 pp. 43–4)

While nobody would deny the value of formal vocational preparation courses fostering the Candy, Crebert and O'Leary profile, lasting achievement of such a profile would likely include ongoing learning at work and elsewhere. As we argued in chapter 4 when discussing generic skills for employability (sections 4.11 and 4.12), such skills are contextual, social and relational rather than individual. Thus, it would seem that formal preparation courses might at best give learners a sound start on the journey towards achieving such a generic skills profile. If that is so, then our attention moves beyond the front-end model to the role of

informal workplace learning in lifelong learning. This conclusion is supported by critiques of the overly ambitious claims that some universities have made in respect of the generic attributes allegedly developed by completion of their courses (e.g. Clanchy and Ballard 1995).

The vital importance of informal workplace learning in lifelong learning is further reinforced by the strong contextual sensitivity of generic skills. The recent world wide enthusiasm on the part of governments for generic (or 'life', 'basic', 'core') skills appears to stem from a naive expectation that once learnt such skills can be readily applied to any life situation. However, all the research evidence suggests that such simplistic notions of transfer are misguided. It is more realistic to view transfer as application of previous knowledge to new settings in ways that result in learning of significant new knowledge. As Eraut (1997) puts it, usually transfer is a learning process rather than a simple event. Typically the learning involves situating the generic in the particularities of the new context. In many cases, this requires significant learning to understand and adapt to those particularities. Research by Stasz *et al.* (1996) on the roles of generic skills in work showed that:

whereas generic skills and dispositions are identifiable in all jobs, their specific characteristics and importance vary among jobs. The characteristics of problem solving, teamwork, communication, and disposition are related to job demands, which in turn depend on the purpose of the work, the tasks that constitute the job, the organisation of the work, and other aspects of the work context.

(1996 p. 102)

Similar research by Hager *et al.* (1996) concluded that:

Rather than being viewed as discrete skills that people learn to transfer, the [generic skills] should be seen as learnt capacities to handle an increasing variety of diverse situations. Thus transfer becomes more a growth in confidence and adaptability as learners experience ever more success in their deployment of the [generic skills] to a range of situations. To put it another way, perhaps it is not so much the [generic skills] that transfer, as growing understanding of how to deal with different contexts.

(p. 82)

We can conclude that when attempts to renovate the front-end model in terms of lifelong learning and generic skills or attributes are examined closely, they tend to point the way to a different model that takes account of informal workplace learning. The attempted renovations seem unlikely to prevent the collapse of the front-end model, which has been a major plank of the dominant educational paradigm. This collapse can be seen as but one side of a coin whose opposite side is the increasing prominence being accorded to practice-based

informal learning from work. A new model of occupational learning that includes practice-based informal learning is needed.

6.6 The necessity of practice-based learning from work

It will be useful to consider briefly three case studies of work in different occupations in order to gain a feel for how practice-based informal learning seems to be a necessary part of gaining proficiency in carrying out those occupations. As Ivan Illich pointed out, ‘... most people acquire most of their knowledge outside school’ (1973 p. 20). When typical work performances of a high level are considered in detail, it becomes evident that practitioners are deploying a range of knowledge and skill that extends well beyond anything that was learnt in the formal courses that prepared and qualified people for those jobs. To illustrate the point the attributes for proficient performance in three very different areas will be outlined briefly.

6.6.1 Immigration law specialist lawyer

In section 3.10 the New South Wales Law Society Specialist Accreditation Scheme was described. Immigration Law is one of these specialisations. To achieve accreditation, lawyers need pass a multi-component assessment process. This includes a written test which tests knowledge of immigration law, as well as knowledge of procedures and rules. As well there are questions that seek to test the ability to apply this knowledge to situations encountered in practice. This component of the assessment process could be seen as consistent with the standard paradigm of learning. It tests knowledge and its application to practice (the ‘theory/practice’ view of performance). While this is broadly the situation, a significant part of the knowledge being tested is of a procedural kind that is not learnt in law school but rather from the experience of practice. However, it is in the other main components of the assessment process, the mock file and the simulation, that things get much closer to the emerging paradigm of learning and the testing of practice-based informal learning. The mock file is sent to a candidate as a set of facts presented as if they were in a file and the candidate is required to perform certain tasks. The purpose of this is to test the candidate’s ability to perform tasks normally conducted in practice in as normal an environment as possible. Because the short time limits of an examination room do not apply, there is time for the mock file to deal with complex issues in depth. In particular, the mock file tests ability to:

- draft documents
- identify the legal and practical issues
- analyse information in the light of relevant law
- develop an appropriate course of action which reflects the client’s objectives
- advise the client appropriately.

While aspects of these would have been learnt in the candidate's formal courses, most, particularly at the level of skill and judgement required to pass the assessment process, would have been learnt and refined from relevant professional practice.

This applies even more to the simulation. Recognising that a crucial role of the skilled immigration lawyer is to conduct a productive first interview with a client, the simulation tests just this. It involves a videotaped interview of approximately one hour in which a trained actor presents as a client. The actor has a scripted story that includes information in italics that is only to be provided if specifically asked for. For the purposes of the exercise, the actor is not fluent in English and is asked to improvise if asked any factual questions that fall outside of the scope of the script. The actor is also asked to keep an eye on the time and to prompt the candidate after forty-five minutes to indicate the need to leave shortly to keep another appointment. The videotaped interview is then assessed against various criteria that relate to establishing a relationship with the 'client', gathering relevant information and taking the 'client's' instructions, and providing sound advice that addresses the issues of the case. For each of these areas there is a series of indicators that the assessors use to evaluate performance. Once again, it is possible to point to some aspects of the candidate's performance where learning from formal courses was drawn on, but here the major abilities being assessed are ones that can only be learnt and refined from relevant and considered professional practice. When the public complain of sub-standard performance by lawyers, it is usually their deficiencies in these people, planning and organisational skills that are at issue. Overall the capacity to engage in practice-based informal learning from work so as to raise one's performance to a high level is an essential requirement for Immigration Law specialists in New South Wales, Australia.

6.6.2 *Hairdressing*

The hairdressing workplace in this case study is a salon that is part of a flourishing small chain of salons in Sydney, Australia. The chain of salons sees itself as maintaining an edge on its competitors because of its significant investment in training staff to have a distinctive customer focus. Hairdressing is an occupation that is typically entered via an apprenticeship, which, of course, includes a substantial component of on-the-job training. This chain of salons encourages continuous learning, and ensures regular training programs for all its staff. Besides keeping up-to-date with the more technical skills of hairdressing, there is an ongoing emphasis of the importance of 'softer' skills. This latter emphasis comes from the business focus of this hairdressing salon (and of the other members of its successful chain) which centres on the provision of a service to customers that will bring them back regularly. The achievement of this end depends as much on the 'softer' skills of the staff as it does on basic technical skills like cutting and perming hair. This becomes evident from a consideration of how the staff go about their work.

Staff typically spend significant time in consultation with customers to establish their needs and to offer a range of alternatives to help meet those needs. The emphasis is on formulating the various alternatives in a clear way so that customers can make informed choices. Customers often are not sure of what they want. The staff role is to formulate ways to make the customer look better and to present the options to the customer clearly in order to make an informed decision. It is emphasised that staff must present options to the customer, not as a hard sell, but in a helpful, constructive way. As well as the initial presentation of options to the customer, staff must also provide sound advice on post-treatment care, including recommendations and sales of products for after care.

As part of the normal service, staff are required to design a program for customers to manage their hair after the treatment. A copy of the care program that has been supplied to the customer is retained on the records, thereby enabling management to monitor ongoing staff performance in this area. Staff liken this part of their work to the responsibility of a doctor for sending a patient away with the correct prescription. Other aspects of planning/organising are the responsibilities to ensure that customers are not kept waiting longer than necessary and that they are looked after with coffee, newspapers, etc.

Without going further into details of the work of staff of this hairdressing salon, enough has been said to demonstrate that the learning involves a combination of formal training and practice-based informal learning from work. For example, staff are encouraged to discuss with one another challenging cases and strategies for dealing with them. Much of skilled performance in this workplace requires appropriate combinations of generic or 'soft' skills as well as of more specific skills. The main challenge for staff is to deploy suitable combinations of these skills to meet the needs of particular clients. This ability by staff to 'put it all together' to suit the particular case depends on a capacity to make appropriate judgements, as well as to understand and justify their actions. Proficient performance in this workplace requires suitable learning from formal education and training. But it also requires staff to engage in organic learning that embeds generic skills with a range of more technical skills to practice consistently in ways that serve both client needs and the particular business focus of this workplace. Much of this will be learnt from the experience of practising in this workplace. The elements of artistry inherent in this work reminds us of the anticipative action discussed in section 2.15.

6.6.3 Customising kitchens

The workplace in this case study is a Sydney suburban hardware shop which, as well as general hardware business, specialises in supplying customised kitchen components. Until recently the skills required for workplaces like this were obtained fully by on-the-job training. However, there is now in operation a Timber and Building Materials Association Traineeship, which is a combination of a formal course with on-the-job training. As well as the general hardware business, the staff in this workplace are involved in designing and supplying

customised kitchen cabinet components to a variety of customers – retail, trade, do-it-yourself and manufacturers – with each type of customer’s specific needs and budgetary constraints being crucial.

As with the hairdressing example, the staff member has to ascertain customer needs and to present them with a range of options. In this case the customer’s knowledge of what options are available is often out-of-date. Thus the staff member needs to be able to communicate and negotiate effectively with customers in face-to-face situations. As well there is a need to communicate and negotiate effectively over the phone with customers, suppliers and staff in other branches. There are significant planning and organising duties, including maintaining supplies of raw materials, preparing accurate quotes that feature efficient estimates of materials needed, recording and ordering of appropriate non-stock items, organising inter-branch transfers of materials, and planning and coordinating all of these activities so as to be able to meet realistic deadlines. The nature of the job is such that the staff member also needs to work effectively in a team with fellow staff.

Overall, it is not difficult to identify in this work clear instances of knowledge and skills learnt from formal courses. Equally clearly, much of what is required of staff needs to be learnt and refined in the daily carrying out of this work. Once again the need to ‘put it all together’ in a harmonious way demands the exercise of considerable judgement. This capacity constitutes the organic learning that has been a major theme of this book. The staff member is accountable for using raw materials so that waste is minimal, for estimating efficient but realistic deadlines, and for ensuring that the measurements for orders are accurate. There is a clear demand on staff to be able to understand and justify their actions, and to adapt them as needed to the changing and particular demands of the context in which they are operating.

What clearly distinguishes each of these three cases, and countless others like them that occur daily in workplaces, is the distinctive contribution of informal workplace learning. People can learn from their experience of practice to improve their subsequent practice further. This does not mean that all learning is equally useful (people can learn bad habits for example). Nor does it mean that earlier learning from formal courses is irrelevant for daily workplace practice: such learning often plays a significant part in workplace practice. Rather, the claim is that informal workplace learning of the right kind appears to be an essential component of proficient practice in most, if not all, occupations.

This position is supported by research on the development of expertise or practical intelligence. This research suggests that expertise involves the development of what the researchers call domain specific mental schema. These schema are claimed to enable the perception of large meaningful patterns that are not apparent to the novice (Glaser 1985, Tennant 1991). Amongst other things, this domain specific know how enables experts to work faster and more economically than novices. Further support for the view that competent workers derive significant practical knowledge and know how from the practice of their occupation

comes from Cervero (1992 p. 98) who argues that the procedural or practical knowledge that is essential for effective professional practice can only be 'acquired through practice or reflection on practice' (see Kennedy 1987).

One response to the above conclusion is that if the formal course was doing its job sufficiently well then no further informal learning from the experience of practice would be required. This is the traditional assumption, based on the standard paradigm of learning (as set out in section 6.1), that views formal learning as the only kind of worthwhile learning, thereby devaluing informal learning. This is a variant of the theory/practice account of occupational practice – practice as mere application of theory acquired via formal courses. Thus the traditional, and widespread, assumption is that practice is reducible to theory, and that informal learning, if it is any good, is reducible to formal learning. Note that the traditional assumption treats learning as a destination rather than as a journey that potentially continues indefinitely. All of the above examples, and others discussed earlier in this book, point to the need for learning to continue beyond formal education. This suggests the need for an alternative model of occupational learning. Such a model that incorporates practice-based informal workplace learning is the main focus of the rest of this book.

6.7 Main features of practice-based workplace informal learning

In order to sharpen our understanding of the informal workplace learning that arises from practice, six key features will be discussed in turn as follows:

- 1 Practice-based informal workplace learning is organic/holistic
- 2 Practice-based informal workplace learning is contextual
- 3 Practice-based informal workplace learning is activity- and experience-based
- 4 Practice-based informal workplace learning arises in situations where learning is not the main aim
- 5 Practice-based informal workplace learning is activated by individual learners rather than by teachers/trainers
- 6 Practice-based informal workplace learning is often collaborative/collegial.

6.7.1 Practice-based informal workplace learning is organic/holistic

Whereas the learning achieved in formal courses usually takes one of a small number of specific forms for purposes of teaching and assessment, such as disciplinary knowledge, psychomotor skills and cognitive abilities, informal workplace learning knows no such specificity. It is much more holistic, a seamless know how that simultaneously incorporates many or all of the particular types of learning that are the focus of formal courses. Thus propositional knowledge, cognitive skills, psychomotor skills, attitudes, values, capacities and capabilities of various

kinds may all be part of some instance of informal workplace learning, without it being separately reducible to any of these. In Part I the term organic learning was introduced to cover precisely this holistic kind of learning. This holism – the capacity to ‘put it all together’ in the right way to suit the needs of the particular case – was evident in each of the three occupations discussed in the last section.

This holism of practice-based informal workplace learning explains why the common theory/practice approach to explaining it fails. ‘Application of theory’ is a very thin descriptor of the richly skill-, attitude- and value-laden complex of seamless know how that is a typical instance of workplace learning. This is also why recent equity initiatives such as assessment and recognition of prior learning have difficulties with informal workplace learning. These well-intentioned approaches to recognising and accrediting people’s learning are based on the traditional categories of learning such as disciplinary knowledge and skill. They can deal readily with learning that matches categories employed to conceptualise formal learning and structured training, but find that informal workplace learning constitutes a kind of organic learning that lies outside this range. This does not mean that informal workplace learning is antithetical to knowledge and skills, but that it incorporates these into a more complex organic synthesis.

6.7.2 Practice-based informal workplace learning is contextual

In simple terms, workplace context refers to the surroundings in which work is done. So to say that practice-based informal workplace learning is contextual is, at first sight, not to say a lot. In one sense, all learning is contextual since it occurs in some surroundings or other. But the contexts of formal education or training are much more restricted than the range of contexts found in workplaces or in life generally. In any case, a central characteristic of most formal learning and training is that it is deliberately decontextualised as much as possible on the assumption that learning that is independent of context can thereby be applied in any context. So, for example, if someone is a trained lawyer, we assume that they know how to gather the facts and other information relating to a legal matter. Certainly, the front-end model assumes this.

But there are good grounds for thinking that a stronger view of context applies to the happenings in actual workplaces. This stronger contextualist view argues that the nature of work processes are significantly shaped by contextual influences. Hence, the informal learning that occurs in such workplaces is itself significantly contextual. According to this view the notion of context is itself very complex. Context is seen as including a multiplicity of workplace-related factors such as the following:

- the specific history of a workplace, company, household, etc.
- its particular culture and norms
- its institutions and practices, such as work organisation and career structure
- its economic and social environment

- its strategic needs
- its deployment of technology
- the extent and intensity of change to which it is subject.

Hence this stronger sense in which context can influence work practice, and, hence, any informal workplace learning, is one in which the outcomes of such learning are altered by details of the particular workplace context. Some details of the particular context are needed in order to arrive at suitable descriptions of the informal workplace learning. According to strong contextualist views of workplace learning, a plurality of such factors combine to shape work processes that may well be unique to that workplace or company. The New South Wales Law Society Specialist Accreditation Scheme provides an example of just this. The traditional assumption was that a general legal training sufficed to practice in all areas of the law. As the law became more diverse and complex, this assumption was increasingly seen to be unrealistic. Hence the Specialist Accreditation Scheme to enable the public to more readily identify legal services to meet their particular needs. The earlier assumption that a trained lawyer knows how to gather the facts and other information relating to a legal matter is false. It depends on the nature of the legal matter as to which lawyers are competent to act. Thus legal practice is significantly contextual.

The worry people have with a strong contextualist view is that it appears to make informal workplace learning inherently specific rather than general, i.e. specific to the practices and other features of the setting in which the learning takes place. This is true only to a certain extent. For example the hairdressers discussed in section 6.6.2 learn to practice in ways that support the particular business philosophy of the chain of salons that employs them. They engage in very contextualised informal workplace learning. However, their practice does not become so contextualised that they could not work in a salon with a different business philosophy. Rather, in moving to a somewhat different context, they would need to learn to practice in unfamiliar ways, though as the new informal workplace learning took its course the unfamiliarity would diminish. Amongst other things, this illustrates why workplace learning is not confined to standard disciplinary knowledge.

This contextuality of workplace performance may raise questions about the value of generic training programs in some cases. On the basis of their automotive industry research project, Sefton *et al.* (1995) point to:

the need for a great deal of the training (on topics such as company policies, enterprise technology and equipment, company work systems, new enterprise products, customers and suppliers of the company and the introduction of new technologies into the workplace) to be highly contextualised and enterprise specific. However, there are some areas that could benefit from generic curriculum resource packages, such as occupational health and safety, rights and responsibilities of employees, industry or business context, etc. However much of this material would also need to be

contextualised to the specific workplace. It would appear to be counter-productive to send people to class to learn generic curriculum if the aim is for the workplace to become an effective learning environment.

(p. 179)

Interestingly, contextuality in several senses is also important for the generic aspects of workplace performance. A crucial feature of generic aspects of workplace performance is their strong sensitivity to changes in work context, as was discussed in section 6.5. The different forms that generic skills and dispositions take in different workplace contexts has been confirmed by various researchers (Gonczi *et al.* 1990, Hager *et al.* 1996, Stevenson (ed.) 1996, and Stasz *et al.* 1996).

So different combinations of generic skills and dispositions are required in different industries and occupations. But they also differ across workplaces in the same industry or occupation. It has been found also that these locally adapted generic skills and dispositions are major features of work in workplaces that focus on high performance or high quality products (Field and Mawer 1996, Gonczi *et al.* 1995). This points to a fatal flaw of mechanistic, narrow competence standards. Competence is more about framing an overall performance that is appropriate to a particular context. It is not about following simplistic recipes (Hager and Beckett 1995). Rather it encompasses the anticipative action described in chapter 3. Overall, then, the wide range of senses in which generic skills and dispositions display contextuality in the workplace illustrates the variety of factors that complexify the description of learning that occurs during workplace performance.

6.7.3 Practice-based informal workplace learning is activity- and experience-based

It seems to be characteristic of informal workplace learning that it is triggered by work activity and experience. As we saw in Part I, this occurs often in ‘hot action’ situations. Of course it might also arise from ‘cooler action’ situations such as reflection on practice. Valued learning episodes seem to be favoured by experience of demanding or challenging practice. A feeling that ‘I’ll be more successful next time’ is commonly reported. By being immersed in experience and activity, informal workplace learning is an instance of what Dewey regarded as the most central case of learning.

For Dewey, experience is ‘an interaction of environing conditions and an organism.... It contains in a fused union *somewhat* experienced and some processes of *experiencing*’ (quoted in Burke 1994 p. 45). The emphasis here is on action rather than cognition. For Dewey, the prime outcome of learning is a change in the world rather than a change in the contents of a mind. According to Dewey, experience ‘is primarily an active-passive affair; it is not primarily cognitive’ (quoted in Garrison 1995 p. 101). On this view the learning and knowledge that are derived from activity and experience are provisional, subject to change and revision as further activity and experience are engaged in. This

contrasts with the preference in formal learning for knowledge marked by universal truth. As well, informal learning acquires a bad name because it can be 'mislearning'. What, for example, are we to make of the informal learning notoriously acquired by young prison inmates? It is clear that informal workplace learning is centrally a product of efforts to change the world in some way to achieve desired outcomes. Such instances of informal learning have their own in-built assessment. So, while not aimed at universal truth, such learning is evaluated and refined in terms of what works and how well in particular situations. Thus its worth is subject to long-run scrutiny of various kinds. Of course, a person's informal workplace learning might include a realisation that this is not a satisfying organisation to work for or that this job is not the sort of work that they want to do for any length of time. From the perspective of employers or fellow workers, this might be seen as a case of 'mislearning', thereby illustrating the inevitable contestability of much informal learning (see Butler in Boud and Garrick 1999).

6.7.4 Practice-based informal workplace learning arises in situations where learning is not the main aim

Learning is seldom, if ever, the main aim of workplace activities. The same applies to most of life's activities. Certainly, the cases of 'mislearning' just referred to were unconnected to the aim of the workplace activity which gave rise to them. Although much of informal learning can be viewed as increasing the knowledge capital of the organisation or enterprise, workplace activities usually have more direct aims such as meeting client needs, fulfilling a contract or generating a cash flow. As was demonstrated in Part I, work activities are typically a species of practical reasoning whose aim is the good, the efficacious or the appropriate. Hence practitioners or workers are often unaware of the nature or extent of their learning; the learning is often implicit or tacit, in contrast to the typical explicitness of formal education/training.

So informal learning is usually not measured by the outcomes of the activities from which it arises. Thus it is likely to remain implicit or tacit, thereby adding another dimension to the earlier point that much informal learning may be contested. However, we would like to raise some questions about the notion of tacit knowledge and its often unrecognised ambiguity. Schön's knowing-in-action is said to be tacit knowledge in that, though practitioners know it, they cannot express it. Schön links it to Polanyi's (1958) 'personal knowledge' which refers to the type of know how that is displayed in skilful performances which can be seen to follow a set of rules that is not known as such to the performer. More broadly, we find that the term 'tacit knowledge' is employed often as a blanket term for the features of practical knowledge that contrast sharply with technical knowledge. Unlike technical knowledge, practical knowledge is said to be unformulable, unteachable, and unlearnable (see Oakeshott 1962). These link to the literal meaning of 'tacit knowledge' which is 'knowledge that cannot be put into words'. So to say that informal learning is tacit knowledge is to say that

informal learning is often implicit, in that those who possess it are usually unable to articulate it. This, seemingly, makes the contrast with technical knowledge very clear. However, note that to say that someone has knowledge that they are unable to articulate is to claim something weaker than the claim that in principle this knowledge cannot be put into words.

We have three difficulties with the notion of tacit knowledge. Firstly, it is multiply ambiguous as a careful reading of the previous paragraph would show. Amongst other things, it can mean:

- knowledge that cannot be put into words
- knowledge that can be explicated only with difficulty
- craft secrets
- intuition (intuitive knowledge)
- bodily 'knowledge'.

Clearly these are not all the same, though some of them overlap. Some of them cannot in principle be put into words, while others certainly can, with more or less difficulty. Nevertheless, we maintain that much of the 'tacit' can be, and should be, made explicit for learners. Our judgement theory in a later chapter aims to achieve this.

Our second difficulty with the notion of tacit knowledge is that in many instances it appears to achieve nothing more than a renaming of the problem. This is exacerbated by the term's profligate ambiguity. In Moliere's play *The Imaginary Invalid*, there is talk of a drug that puts people to sleep because of its 'soporific' and 'somniferous' properties, as though giving the phenomenon an esoteric name provides all of the understanding that the situation requires. Something very like this seems to happen with the way the notion of 'tacit knowledge' functions in the education and training literature. This leads into our third difficulty. Not only does it rename problems, but the act of doing so seems to suffice to close off further enquiry. However, we argue that this is precisely where inquiry needs to start since much of the 'tacit' can be, and should be, made explicit for learners.

Research evidence supports the claim that knowledge and learning that is made explicit for learners is better understood and learnt than knowledge and learning that remain tacit (see, for example, Evans and Butler 1992). Likewise, research on the teaching and learning of generic competencies (such as planning and organising, or working with others) shows the need for teachers to make these competencies explicit as part of the learning that is to take place. The research demonstrates the falsity of the simple assumption that learning of such generic competencies will occur incidentally during traditional teaching sessions (Hager *et al.* 1996). It is for this reason that some universities are paying more attention to the generic outcomes that are supposed to result from their more general courses such as arts degrees.

In short, the notion of 'tacit knowledge', far from helping us to understand informal learning, merely serves to further obscure the important issues. Perhaps

the one positive feature to emerge from this discussion is that the multiple ambiguity of ‘tacit knowledge’ suggests that there are many dimensions to informal learning.

6.7.5 Practice-based informal workplace learning is activated by individual learners rather than by teachers / trainers

A further implication of learning usually not being the main aim of workplace activities is that informal workplace learning is not under the intentional direction of third parties in the way that formal learning is. Whereas teachers, trainers, lecturers and tutors all strongly shape the course of formal learning, informal learning is interestingly different. It is instigated, activated, or controlled by the individual learners themselves in interaction with the situation that they find themselves in. In the case of informal workplace learning, this will usually be some work situation that poses a challenge, or presents a difficult or uncomfortable situation that needs to be addressed. Here, if anyone is controlling the learning it is the learner, but only in interaction with the problem-posing work situation. Of course the learner might, and often does, choose to consult peers or mentors about how best to deal with the situation (the collaborative/collegial character of informal workplace learning, discussed below). Still, even with assistance from peers or mentors, the individual learner grappling with the situation is the key driver of the learning that occurs in informal workplace situations. Chapters 2 and 3 showed how action and agency start with individuals, even though those individuals are socio-culturally shaped – often abetted by policies (as was shown in chapter 4).

Two important implications follow from this. First, in contrast with formal learning where the focus is on teaching/training of pre-structured content, here the focus is on learners and learning. This is so even though the workplace activity rather than the learning is the ‘main event’. Second, the personal aspect of informal workplace learning increases the likelihood of its contestation. Of course all learning, including formal learning, is open to contestation at some level. For example whether or not there is a ‘natural’ basic curriculum, and, if so, what its contents should be, are matters of current ongoing controversy. Because learners in formal education systems have already had these matters decided for them in advance by others, they often gain the impression that formal learning is uncontested. Because of the personal dimension of informal workplace learning and the fact that it is often not made explicit, the possibilities for contestation about what counts as learning would, at first sight, seem to be increased. However, we suggest that the real contestation is likely to be not so much about what counts as learning, as about what learning is valued or recognised by particular interest groups. Earlier it was suggested that a person’s informal workplace learning might include a realisation that this is not a satisfying organisation to work for or that this job is not the sort of work that they want to do for any length of time; from the perspective of employers or fellow workers this might be

seen as a case of ‘mislearning’, thereby illustrating the inevitable contestability of much informal learning. However, note that nobody is really contesting that learning has occurred here. In seeing it as ‘mislearning’, the employer is granting that it is learning. It just happens to be learning that is not valued by the employer. Similarly, there is no doubt that the informal learning acquired by young prison inmates is learning. It just happens to be a kind of learning that most people wish had not occurred. So when informal workplace learning is contested, what is being contested is not whether learning has occurred, but how valuable that learning really is. This may be just a matter of one’s point of view.

6.7.6 Practice-based informal workplace learning is often collaborative or collegial

The collaborative or collegial nature of much practice-based learning was discussed in chapter 4, and was evident in the hairdressing and customising kitchens case studies discussed above in section 6.6. By contrast, the individualism that marks most formal education/training is well-known. Even in the relatively rare cases in formal education where learners engage in group work, the assessment and progression assumptions are such that there is a need to identify and grade individual performance within the group. Thus, informal workplace learning is somewhat different in that it often springs from collaborative or collegial work. As well, the focus is more on significant others as co-learners or aids to learning rather than as teachers. Even where work is performed by lone practitioners, as in some professions, it is common for them to consult peers and colleagues about difficult situations (perhaps by phone or over drinks after work). In this way, whether they work alone or as part of a team, practitioners are almost invariably part of a community of practice. Thus, though they significantly direct the course of their learning, it has as learning inevitable social and political dimensions. The norms and values that come from practitioners’ cultural formation are thereby key factors in informal workplace learning. As social and political norms and values evolve, informal workplace learning is shaped and reshaped somewhat differently. Thus, the collaborative or collegial dimension of informal workplace learning from practice is one of its important features.

6.8 Conclusion

As has been emphasised in this chapter, practice-based informal learning from work is emerging currently as a topic of major interest. The reasons for this have been outlined. Each of the six key features of practice-based informal learning shows that practice-based informal learning differs markedly from formal learning. Practice-based informal learning simply does not fit well with the standard paradigm of learning. In the next chapter some main ideas that underpin the standard paradigm of learning are critiqued, leading to a proposed different approach to thinking about learning – the emerging paradigm of learning.

7 Holism/organicism

Epistemological implications of practice-based learning at work

The previous chapter identified some main features of practice-based informal workplace learning, which explained why the standard paradigm of learning found no place for such informal workplace learning. Later chapters will offer a fuller theoretical basis for understanding practice-based learning at work, while this chapter will begin that task by proposing an alternative to the standard paradigm of learning, one which will be inclusive of practice-based informal workplace learning. This new emerging paradigm of learning accommodates the main features of practice-based informal workplace learning identified in the previous chapter. At the same time, this newer paradigm of learning does not exclude instances of traditional formal learning. In this emerging paradigm, rather than being the norm of learning, such instances of formal learning are just some examples among many others that are covered by the paradigm. The considerable virtues of this new paradigm of learning will become apparent on consideration of how it deals with the seemingly intractable dualisms or dichotomies that have bedevilled thought about education and work in the standard paradigm of learning. Thus this chapter begins with an account of the dualistic thinking that has accompanied the standard paradigm of learning and shows why this thinking inevitably went wrong in regard to practice-based learning at work. This will prepare the way for an outline of the proposed new paradigm of learning. Subsequent chapters will flesh out this emerging paradigm of learning.

7.1 Education and work – illicit bedfellows?

We have seen that the standard paradigm of learning excludes practice-based learning from work. This is because its distinctive features, outlined at the end of the previous chapter, explicitly contradict central aspects of the standard paradigm. This exclusion is symptomatic of a broader and ongoing antagonistic relationship between education and work. This antagonism goes back at least to the Ancient Greeks and its durability is evident in the old classicists' dictum that 'the study of law is sublime, but its practice is beneath contempt'.

The problems between education and work have centred on the following issues and associated dualisms:

- 1 the inferior status of vocational education (centred on the general education/vocational education dualism)
- 2 the front-end model of occupational preparation (centred on the learning/working dualism, which can also be thought of as the formal learning/informal learning dualism with only the former being within the scope of education)
- 3 the failure to provide an educational account of workplace performance and learning (centred on the theory/practice account of workplace performance).

Taken together, these three form the foundation of an overall education/work dualism.

The newer emerging paradigm of learning, which we shall outline later in this chapter, will provide basic ideas for showing these dualisms to be false ones. The emerging paradigm will also point the way to an educational account of workplace performance and learning to replace the barren theory/practice account. This replacement theory will to some extent retain some of the traditional educational concepts, but conceived in a different way that overcomes dualisms.

However, an important preliminary is to understand those aspects of the dominant educational paradigm that led to informal learning at work being so effectively excluded from traditional educational thought.

7.2 Problems with received understandings of education and work

The prime feature of the front-end model that we want to stress here is its delivery of control to the mainstream educational establishment in three crucial respects – control of the development of knowledge, teaching of knowledge, and certifying of knowledge. This control of knowledge and its delivery and certification via the front-end model will be shown to have been supported and justified in terms of a largely unquestioned conceptual hierarchy. This hierarchy has two crucial binary dimensions that will be outlined and discussed. These dimensions are essentially the first two dualisms noted in section 7.1:

- 1 the general education/vocational education dualism
- 2 the formal education/informal education dualism.

The power of this pair of dualisms on educational thought has been such that between them they have ensured that informal workplace learning has remained largely invisible in the educational landscape. The cumulative impact of combining these two deep-seated dualisms is create an education/work dualism. This is apparent from Table 2.

As the table illustrates, by simultaneously exemplifying both the vocational and informal characteristics, informal workplace learning (D) is conceptually

Table 2 Impact of combining two main traditional dualisms

	<i>Formal</i>	<i>Informal</i>
<i>General</i>	A Educational mainstream (most valued)	B Community education (less valued)
<i>Vocational</i>	C Training (less valued)	D Informal workplace learning (least valued)

located as the opposite pole to the educational mainstream (A). By ‘educational mainstream’ we here mean formal schooling leading into all forms of higher education. The focus of this educational mainstream is definitely on education that is general and formal. Since practice-based learning from work is by its nature both particular in important senses and informal, by definition it cannot be part of the educational mainstream. Hence, it cannot be educational. So work and education are installed as polar opposites. Given this situation, it is natural to draw on the educational mainstream to account for any educational aspects of work – that is, reduce D to A in Table 2. This is, in effect, the theory/practice account of work performance.

This situation has meant that the key activities that pertain to knowledge – its development, teaching and certification – have had little or no connection with informal workplace learning in Western culture. Our argument is that this has more to do with cultural assumptions than any innate incapacity of informal workplace learning to generate knowledge. These cultural assumptions are reflected in the widespread influence of the pair of dualisms, an influence that we now consider in some detail.

The idea that the ways a society organises, transmits and accredits knowledge are themselves social constructions with their own political and social ramifications is not, of course, a new one. The focus of the papers in the widely influential Young (1971) collection was precisely ‘on the organization of knowledge in the formal educational institutions of industrialized societies’ (p. 2). Young added that because of this focus, the papers ‘may, therefore, unwittingly, take certain categories for granted that are characteristic of this institutional framework’. Young was right to note this: although the general education/vocational education dualism is mentioned by several of the contributors, significant questioning of this divide is not a major feature of the papers in the Young book. Yet we maintain that it is precisely the influence of this dualism that has controlled the organisation of knowledge in industrialised societies.

7.3 The enduring influence of the general education/vocational education dualism

Educational thought, at least in the English-speaking world, has been powerfully shaped throughout its history by a series of related and overlapping dualisms or

dichotomies inherited from the Ancient Greeks, viz. body vs. mind, hand vs. head, manual vs. mental, skills vs. knowledge, applied vs. pure, knowing how vs. knowing that, practice vs. theory, particular vs. general, and training vs. education. The power of this series of dualisms is reflected in the institutional separation of vocational education and training from the educational mainstream, i.e. from 'genuine' education. At this stage it is worth noting that we are deliberately using the term 'dualisms' rather than 'distinctions' because the latter term is not strong enough for the point that we are making. Whereas distinctions operate at the linguistic level, and may remain at that level, we see dualisms or dichotomies as going further and having material consequences by being operative in social and political realities.

Of course some university education is clearly vocational and always has been. For example, a major role of universities from their beginnings was to produce leaders in areas such as the church and the law. Since the industrial revolution, the vocational scope of universities has expanded continuously. However, this expansion has been justified as educational rather than narrowly vocational by the perceived predominance of the mental over the manual in such studies, a feature not seen as shared by those sub-professional occupations excluded from university study. As Ashby succinctly put it:

Here is the criterion for determining what subject or what parts of a subject should be taught at a university. If the subject lends itself to disinterested thinking; if generalization can be extracted from it; if it can be advanced by research; if, in brief, it breeds ideas in the mind, then the subject is appropriate for a university. If, on the other hand, the subject borrows all its principles from an older study (as journalism does from literature, or salesmanship from psychology, or massage from anatomy and physiology), and does not lead to generalization, then the subject is not a proper one for a university. Let it be taught somewhere by all means. It is important that there should be opportunities for training in it. But it is a technique, not an exercise for maintaining intellectual health; and the place for technique is a technical college.

(Ashby 1946 p. 81)

Ashby's suggestions have a certain plausibility. For a start they incorporate the idea that institutional arrangements validate the dualism – universities for general education, technical or further education colleges for vocational education. Ashby's suggestions also seem to explain a range of historical facts about the development of particular university courses. In law and medicine, general principles underlying the profession are the province of the university, while specific vocational skills are learnt away from the university as an articled clerk or intern. Certain subjects faced a long battle to gain a place in universities. For example, pharmacy was typically an apprenticeship course at technical or further education colleges until it could finally breed enough ideas in the mind to move to the universities. Likewise, the struggle of engineering to gain acceptance

within universities was long and complex (Ashby 1966 chapter 3). Even today there are some who would argue that subject areas such as education are not conducive enough to the maintenance of intellectual health to warrant faculty status within universities.

So the general education/vocational education dualism and related dualisms have been dominant influences in educational thought and practice. These dualisms have crucial material consequences at the social and political levels as they significantly shape what counts as knowledge, who delivers it and who certifies it. This social and political control of knowledge incorporates a particular and partial view of the nature knowledge, a view assumed to be the only true and correct one for education. According to this received grand narrative of education derived from Plato and Aristotle, theoretical knowledge is superior to both practical and productive knowledge. For Aristotle, theoretical knowledge was linked 'to certainty, because its object was said to be what is always or for most part the case' (Hickman 1990 p. 107). According to Aristotle, it thereby had a share in the divine. He held that practical (or ethical) knowledge was inferior to theoretical knowledge because it involved 'choice among relative goods' (pp. 107–8) and productive knowledge was even more inferior because it involved 'the making of things out of contingent matter' (p. 108). For the Greeks this hierarchy of theory/practice/production was not only epistemological, but also social in that a person's place in the city state reflected the kind of knowledge that was their daily concern.

In our view, this epistemology creates problems of several kinds because of its impoverished notions of knowledge. It ensures that knowledge is quarantined from emotion and will. Although this influential view of knowledge can be traced to the thought of Plato and Aristotle, its influence was continued and strengthened via the legacy of Descartes. If humans are essentially minds that incidentally inhabit bodies, then development of mind remains the focus of education. Likewise, if thinking is the essential characteristic of minds, it can be treated in isolation from non-essential characteristics like emotion and conation.

This elevation of theoretical knowledge underpins the front-end model of education. The main business of preparatory courses is seen to be to supply novices with knowledge that they will apply later on to solve the problems that they encounter in their workplace practice. However, such dichotomous theory/practice thinking prevents serious consideration of possible types of knowledge peculiar to the workplace – or of the possibility that the workplace might be an important and distinctive source of knowledge. If workplace practice merely involves the application of general theories (the province of formal education) to the successful solution of particular problems of individual workplaces, then the details of the workplace problems remain of little interest to formal education.

Further consideration of the general education/vocational education dualism will occur later in this chapter, where a series of strong criticisms will be presented and the continuing influence of the dualism, despite these criticisms, will be discussed. In the meantime, we turn to the second dualism that has

shaped traditional educational thought, via the front-end model, so as to effectively exclude informal learning at work from educational attention.

7.4 The formal education/informal education dualism

The previous section pointed to reasons why the workplace has been viewed as uninteresting from an educational perspective. Thus any learning that occurs during the practice of work has been held to be of little significance compared to knowledge acquired by other means, particularly formal education and training. Quite simply, informal learning, which by definition largely lies outside of the political and social processes by which societies organise, transmit and accredit knowledge, is thereby rendered invisible. We, of course, argue that this view is mistaken, but its widespread acceptance becomes understandable when the major differences on many criteria between informal workplace learning and traditional 'educational' activities are noted. Owing to the influence of the general education/vocational education dualism, formal on-the-job training is widely viewed as of dubious educational status. Historically, training has been viewed as the antithesis of education. Training as mindless, mechanical, routine activity has been contrasted with education as development of mind via completion of intellectually challenging tasks (Winch 1995). Yet despite this 'chalk and cheese' conception of education and training, on many criteria structured on-the-job training is much more like traditional 'educational' activities than it is like the informal learning that results from work. This is because both structured on-the-job training and traditional educational activities share many features common to all formal learning. Hence, there is a paradigm shift implied in any suggestion that practice-based informal learning from work should be taken seriously as part of someone's education. The vast differences between formal learning activities of all kinds and practice-based informal learning from work can be appreciated from the following considerations. (The informal workplace learning features are essentially those developed in the previous chapter.)

Differences between formal learning and informal learning from work

Formal learning

Single capacity focus, e.g. cognition
Decontextualised
Passive spectator
An end in itself
Stimulated by teachers/trainers
Individualistic

Informal workplace learning

Organic/holistic
Contextualised
Activity- and experience-based
Dependent on other activities
Activated by individual learners
Often collaborative/collegial

As the list above shows, there is a series of distinctive contrasts between the two, the cumulative effect of which is to convey the impression that formal learning activities of all kinds and informal learning from work have nothing in common.

So, whereas learning in formal education and training is seen typically in terms of developing specific capacities such as propositional knowledge or practical skills, informal learning from work is more appropriately viewed as seamless know how, in the Aristotelian sense of *'phronesis'* or practical wisdom (as we will argue later). Likewise, learning in formal classrooms is uncontextualised in that it emphasises general principles rather than their specific applications. While formal on-the-job training is typically somewhat contextualised, even here the general is emphasised, e.g. training for general industry standards. But, informal learning from work is by its nature highly contextualised, as was outlined at length in the previous chapter (section 6.4.2).

Under the influence of the standard paradigm of learning, formal classrooms centre on activity by teachers, with the well-known tendency to leave learners as passive spectators. As emphasised in section 6.4.3, informal learning from work is initiated by the activities and experiences of the individual learner. Likewise, as discussed in section 6.4.4, informal learning commonly arises in situations where learning is not the main aim. The opposite is the case in formal learning. For example, whereas learning in formal education and training situations is prescribed by formal curriculum, competency standards, learning outcomes, informal learning from work has no set curriculum or prescribed outcomes. This is reflected in the recent rise of formal work-based learning degrees which has left higher education theorists struggling to make sense of the notion of 'work as the curriculum' (Boud and Solomon 2001). This also means that, whereas in formal education and training the learning outcomes are largely predictable, the outcomes of informal learning from work are much less predictable. Thus, in formal education and training the learning is largely explicit (the learner is expected to be able to articulate what has been learnt in a written examination or in answer to teacher questioning; trainees are required to perform appropriate activities as a result of their training). However, with informal learning from work the learning is often implicit or tacit: learners are commonly unaware of the extent of their learning, as was discussed in section 6.4.4.

These differences reflect the main point made in section 6.4.5 that whereas teachers/trainers are in control in formal education and training, the learner is in control (if anyone is) in informal workplace learning. That is, formal learning is intentional, but workplace learning is often unintentional (although it arises from intentional actions of practitioners). Thus, in formal classrooms and training workshops, the emphasis is on teaching/training and on the content and structure of what is taught/trained. In informal learning from work, the emphasis is on the experiences of the learner-as-worker: not a concept to be taken lightly, given the power of self-directed learning in making sense of one's workplace as well as one's own life at work.

Finally, whereas in formal learning of all kinds the focus is usually on individual learning, informal learning from work is more often collaborative and/or collegial. This is so despite the current policy and rhetorical emphasis on self-direction and individual experience, discussed in chapter 4. This sociality occurs because workplaces are by definition socio-culturally located, and their

consequently shared and site-specific experiences collectively available for educative purposes. Thus, workers invest much of their personal identities in work, and find these defined and re-defined by the local work culture – by ‘the way we do things here’.

It is hardly surprising that formal learning/education is valued much more than informal learning (including workplace learning). Informal workplace learning is a paradigm case of informal education which is undervalued particularly by all levels in the formal education system. For many involved in education the idea of informal workplace learning as genuine education is beyond the pale. Despite this, we noted in chapter 6 some reasons why informal learning at work is suddenly starting to receive significant attention. The factors that assist informal workplace learning to be educational are a major focus of the remainder of this book. In the process, traditional understandings of the formal learning/informal learning dualism will be called into question.

By now it is abundantly clear that the cumulative effect of the two dualisms is to locate informal workplace learning as a polar opposite to the mainstream of legitimate educational activities. These activities centre on control of the development of knowledge, teaching of knowledge, and certifying of knowledge. In the preparation of people for work this control has been institutionalised in the front-end model, a model that is supported and justified in terms of a largely unquestioned conceptual hierarchy founded on the two dualisms. In the process, informal workplace learning has remained largely invisible.

7.5 The failure of theory/practice accounts of workplace performance

As was noted in section 6.3.2, various writers, notably Schön (1983), have drawn attention to the inadequacy of common assumptions about the preparation of professionals. Traditional approaches to professional education are based on what Schön calls ‘technical rationality’ which is the view that professionals draw on their disciplinary knowledge to analyse and solve the various problems that their daily practice puts before them. But in actual practice ready-made problems do not simply present themselves to the practitioner. A major role of practitioners is to work out what the problems might be. So actual practice is richer than the ‘thin descriptors’ (see section 6.7.1) offered by the theory/practice account. Thus, according to Schön, it is a major mistake to locate professional education away from actual workplace practice. Conceptualising education and the workplace in this traditional way inevitably divides theory from practice and creates the perennial problem of how to bring them together again when attempting to account for human action in the world.

Let us examine the shortcomings of technical rationality in a little more depth. The three main assumptions of technical rationality, or the theory/practice account, as analysed by Altrichter, Posch and Somekh (1993), are:

- there are general solutions to practical problems

- these solutions can be developed outside practical situations (in research or administrative centres)
- the solutions can be translated into practitioners' actions by means of publications, training, administrative orders, etc.

Thus, according to technical rationality, the main requirement for novice practitioners is a strong grounding in general theoretical knowledge. As Schön (1987 p. 309) points out, this general theoretical knowledge is modelled on science. As theoretical knowledge it is thought of as having the following characteristics:

- it is relatively constant and reliable
- it falls into clearcut hierarchy and subject divisions
- it is best transmitted as structured information via teachers and texts.

Based on these assumptions, the main business of higher education institutions becomes the development, transmission and certification of general theoretical knowledge. There are two undesirable consequences of this:

- know how is seen as much less important than theoretical knowledge
- other attributes that are important in a flourishing life, both at work and more generally, such as interpersonal, social and political abilities, are regarded as something to be acquired outside higher education.

The influence of technical rationality on higher education is evident from the emphasis on presenting students with problems of a particular kind within a discipline to solve until they become proficient at achieving the right answers, then moving them on to the next kind of problem, and so on. The tacit messages here are that problems fall under disciplines, that they come pre-packaged, and that they have correct answers. Such problems can usefully be called 'closed problems' as a steady diet of them will likely encourage closed minds. However, problems do not simply fit into an open/closed binary. There are various ways in which problems can be more or less open, as Johnstone's useful classification shows (in Wood with Sleet 1993). Johnstone suggests that pen-and-paper problems, a staple of higher education, have three distinct features that result in the following six-fold classification of problems:

Johnstone's Classification of Problems

Outcomes/goals of the problem:	Given or open
Data required to solve the problem:	Given or incomplete
Method of solution:	Familiar or unfamiliar

Typical disciplinary textbooks, especially in the sciences, feature closed problems in which all the data are given and the method for solving the problem is likely to be familiar rather than unfamiliar to the problem solver. Yet in the swampy, messy world of practice, one or more of these dimensions is unlikely to be given

or familiar. So the difficulty for technical rationality is not just that problems are not presented ready-made, and that therefore practitioners need to become proficient in problem-setting. Once a problem has been specified, it may not fit standard applied science categories. So both the data required and the solution method may be unclear. As well, the problem situation may be unique or unstable. This may require that the problem be continually redefined. The anticipative action and feedforwardness, described in chapters 2 and 3, are obviously relevant here.

The above difficulties have arisen as the educational establishment has sought to domesticate practice by claiming it for the high ground of technical rationality. As the difficulties for technical rationality show, the swamp of everyday practice resists facile domestication. In the postmodern world where the front-end model is seen increasingly to be collapsing, there is growing recognition of the need for change in higher education. For instance, as against a steady diet of the closed problems discussed above, Bowden and Marton (1998) point to the need for undergraduates to learn how to deal with unknown situations. Like us, they see a need for higher education to broaden its notion of learning.

If our claim that practice-based informal learning from work is educationally significant is correct, then we appear to need a re-conceptualisation of the notion of education. This we attempt in later chapters.

7.6 Criticisms of the vocational education/general education dualism

Over the years the general education/vocational education dualism has attracted a diverse range of critical comment. Three broad types arguments against this dualism can be distinguished readily – economic, technological, and educational (see Hager 1990).

7.6.1 Economic arguments against the general education/vocational education dualism

From the economist's point of view the general education/vocational education dualism is a false one, because, paradoxically, general education appears to be more vocational than vocational education. Graduates of supposedly general higher education courses end up in relatively well paid jobs – this result is found in all countries where schooling offers alternatives of general education or vocational education. In addition, developing countries which set out to achieve economic growth and development by deliberately making their education system specifically vocational have fared less well than those whose education system focussed on basic general education (evidence for both these findings is summarised in Hager 1990 pp. 15–16). The most likely conclusion from this is that the general education/vocational education dualism is a spurious one, at least in terms of distinguishing education that prepares people for work from education that serves other purposes.

7.6.2 Technological arguments against the general education/vocational education dualism

The technological arguments against the general education/vocational education dualism centre on the capacities needed to deal successfully with rapid technological change. The main claim here is that while specific skills are quickly rendered redundant by the pace of technological change, more generic skills remain relevant and, indeed, are the key to adapting quickly and easily to ever-new circumstances. The major impact of microelectronic technology on work is an oft-quoted example of the creation of a demand for the type of broad skills that are the product of general education. Hence a major interest in generic skills has become evident at all levels of education in the last decade (as was discussed in sections 4.11, 4.12, and 6.5). The aim has been to identify, teach and assess generic skills thought to be common to performance in both education and the workplace. Of course, the term 'skills' is being used in a very wide sense here to include such things as knowledge, attributes, values and attitudes. In the United States these generic skills are known as 'workplace competencies' or 'foundation skills', in Britain as 'core skills', in Australia as 'key competencies', and in New Zealand as 'essential skills'. Problems for these generic skills approaches were discussed in sections 4.11, 4.12, and 6.5. It was pointed out that their proponents are often naively optimistic about the transferability of such skills. As well, it was argued that the research evidence about the acquisition of generic skills serves to further emphasise the limitations of the front-end model of vocational preparation.

7.6.3 Educational arguments against the general education/vocational education dualism

The educational arguments against the general education/vocational education dualism are more diverse. Perhaps one thing that they broadly have in common is a rejection of the theory/practice account of workplace performance which springs from the general education/vocational education dualism in which theory is viewed as the province of the former and practice as the province of the latter. A common theme is well presented by Whitehead. In arguing for the view that 'the antithesis between a technical and a liberal education is fallacious' (1950 p. 74), Whitehead offers the following basic challenge: 'Pedants sneer at an education which is useful. But if education is not useful, what is it?' (p. 3).

The educational arguments against the general education/vocational education dualism usually turn on epistemological considerations; that is, they invoke claims about the nature and scope of knowledge to provide reasons why the general/vocational and related dualisms are false ones.

For one thing, knowledge and competence are not as disparate as some commentators assume. Wolf (1989 p. 39) argues for the position 'that there is no bifurcation between competence and education'. She takes this to mean that competency based education 'is perfectly compatible with the learning of higher-

level skills, the acquisition of generalizable knowledge (and understanding), and with broad-based courses'. Wolf's reasons for supporting this position include:

- 'Competence is a construct, and not something that we can observe directly' (p. 40), but so too is knowledge. (We infer whether a student's knowledge is adequate from their performance on various tests and assignments.)
- What we know of the structure of mind shows the importance of a variety of cognitive abilities. Knowledge recall is only the start. Far from involving practice without theory, as some higher education critics fear, what competence does is to take us beyond lower cognitive abilities, such as recall, to higher cognitive abilities, such as application and synthesis of knowledge.
- Not just that something is done, but why it is done is crucial; "knowing" something involves knowing when to access it, and being able to do so when appropriate – even if it is only in an examination room' (p. 42).

Drawing on Pearson's (1980) distinction between 'habitual skill knowledge' and 'intelligent skill knowledge', Elliott (1991 p. 122) suggests that Wolf may be still only admitting knowledge of a limited kind. According to Pearson, knowledge is certainly necessary for competence because 'a person who is competent at something knows how to do something at more than a minimal level' (1980 p. 37). However, this 'knowing how', which Pearson dubs 'skill knowledge', is claimed to be of two kinds. Habitual skill knowledge underpins 'those skills that a person can perform routinely without reflection', while intelligent skill knowledge underpins 'those skills whose performance requires insight, understanding and intelligence' (Pearson, 1980 p. 37). Pearson and Elliott are correct in their conclusion that a narrow conception of competence requires only habitual skill knowledge. Equally convincing is their view that behaviourist approaches will seek to reduce all knowledge to habitual skill knowledge. Notwithstanding, and despite Elliott's claim to the contrary, we read Wolf's position to include both habitual skill knowledge and intelligent skill knowledge. As we argued in section 3.10, a richer, more organic or holistic conception of competence clearly incorporates both kinds of knowledge.

Incidentally, Pearson's use of 'knowing how' in the previous paragraph recalls Ryle's famous distinction between 'knowing how' and 'knowing that' (Ryle, 1949). In fact, this distinction provides yet another epistemological reason for viewing the general education/vocational education dualism as a false one. In specifying the distinction, Ryle was concerned originally to rebut the assumption that knowing how to do something is knowing the truth of certain principles and applying them to an activity. He pointed out that although it is possible to theorise about, say, cooking, the principles of cooking are, logically speaking, a distillation from the practice of those who know how to cook. So, concluded Ryle, knowing how to do things, being able to perform intelligently, is logically independent of any interior theorising. Though Ryle was seeking to elevate practice from its mistakenly subordinate role, the main effect of his drawing attention to the 'knowing how' vs. 'knowing that' distinction has been to entrench further

the old dichotomies between practice and theory, doing and thinking, etc. Yet, as Edel (1973, pp. 237–43) has demonstrated, the ‘knowing how’ vs. ‘knowing that’ distinction applies only to a very restricted range of individualistic activities that include the ones mentioned by Ryle, such as riding a bicycle, swimming or standing on one’s head. Ironically, complex work situations of the kind that require teamwork involving many highly-skilled workers using sophisticated technology are a prime example of the kind of activity that eludes classification as Rylean ‘knowing how’.

There are still other epistemological arguments against the general/vocational dualism. For instance, Wilson (1992) has argued that by shunning the vocational, universities risk inhibiting the growth of knowledge. His argument, briefly, is that knowledge is a social product and so are the ways that we package it. He discusses various sorts of boxes in which it might be packaged. He suggests an initial four-fold division:

- 1 enabling disciplines (philosophy, mathematics, computing, etc.)
- 2 disciplines concerned with the natural world (physics, chemistry, biology, etc)
- 3 disciplines concerned with the human world (the arts, the social sciences)
- 4 disciplines concerned with practice in the human world (engineering, medicine, law, education, etc.).

Wilson argues that all categories of the disciplines make valuable contributions to knowledge advance. Increasingly, he suggests, significant advances require inter- and multi-disciplinary input. He further suggests that disciplines concerned with practice in the human world offer unique skills, such as design, diagnosis, pattern recognition, and should not be neglected in favour of the first three categories.

Eraut (1985) is another to claim that significant knowledge exists within professions that is typically not recognised by academics. Hirst, whose earlier influential work (Hirst 1965) could be read as supporting the general/vocational dualism, has repudiated this earlier work for a position that has strong resonances with the main theses of this book. Hirst’s revised position is as follows:

I now consider practical knowledge to be more fundamental than theoretical knowledge, the former being basic to any clear grasp of the proper significance of the latter. But my argument now is not merely for the priority of practical knowledge in education, but rather for the priority of personal development by initiation into a complex of specific, substantive social practices with all the knowledge, attitudes, feelings, virtues, skills, dispositions and relationships that that involves. It is those practices that can constitute a flourishing life that I now consider fundamental to education.

(Hirst 1993 p. 197)

The range and complexity of issues covered by the general/vocational dualism is shown in Table 3.

Table 3 Dimensions of the general (liberal)/vocational dualism

	<i>General (liberal)</i>	<i>Vocational</i>
Purpose:	For own sake	For something else
Aims:	Pure knowledge Intellectual excellence	Learning for work
Content:	Intellectual disciplines Intellectually challenging	What work requires Less challenging
Teaching contexts:	Students physically separated from outside influences	Links (physical visits) to workplaces
Teaching practices:	Teacher-centred	Activity-centred
Educational outcomes:	No direct application	Direct application desirable
Authority to decide:	Institutions themselves	Industry etc. has big say
Social standing:	High status	Low status (but only for further education courses – not necessarily so within the university)
Epistemology:	Knowing, not doing Truth	Doing Efficacy
Motivation:	Enriching in itself	Enriching for other reasons (promotion, job satisfaction, etc.)
Scope:	Suited to a minority	Suited to the masses

Influenced by Pring 1995.

7.7 The ongoing search for viable alternatives to the general education/vocational education dualism

One welcome outcome of the recent focus on the role of education in the national economy is that it has forced at least some commentators to think beyond the assumptions of the traditional general/vocational dualism. However, an urgent problem remains, in the limited understanding of the nature of workplace practice and its concomitant informal learning.

The failure of theory/practice ways of conceptualising the problem has generated a host of attempts in more recent work to bypass this dualistic approach. These range from Schön's 'reflective practitioner' to problem-based learning. The impact of this thinking has been very widespread. Even in cognitive psychology there is a recognition of the need to 'de-emphasise the spurious theory-and-practice connotations' that surround the declarative knowledge/procedural knowledge and similar distinctions because 'they do not necessarily

represent independent modes of functioning' (Yates and Chandler 1991 pp. 133–4).

Schön's proposed alternative epistemology of professional practice centres on the 'reflective practitioner' who exhibits 'knowing-in-action' and 'reflecting-in-action'. Knowing-in-action is tacit knowledge in that though practitioners know it, they cannot express it. Thus it is akin to Polanyi's (1958) 'personal knowledge' which refers to the type of know how that is displayed in skilful performances which can be seen to follow a set of rules that is not known as such to the performer. According to Schön, knowing-in-action is underpinned by 'reflecting-in-action' or 'reflecting-in-practice'. This spontaneous reflecting is variously characterised by Schön as involving practitioners in 'noticing', 'seeing' or 'feeling' features of their actions and learning from this by consciously or unconsciously altering their practice for the better. A range of problems for Schön's work was outlined in section 6.4.

Schön's is not the only work that places reflection at the core of professional practice. In fact the work of many recent theorists relies in one way or another on the notion of reflection. It is important to gain some grasp of the range of connotations for the term 'reflection' in this work. It is worth noting that the basic idea is found in Dewey's writings (for example, Dewey 1916). For Dewey, the good life for humans is one in which they live in harmony with their environment. But because the environment is in a state of continuous flux, humans need to grow and readjust constantly to it so as to remain in harmony with it. Thus, for Dewey, education must instil the lifelong capacity to grow and to readjust constantly to the environment. Since inquiry, democracy, problem solving, active learning, reflective thinking, experiential learning, etc. are methods that are necessary for humans to learn to readjust effectively to the environment, these are the teaching/learning methods that must feature in education. Dewey argues that reflection is central to effective inquiry and problem solving, but this should not be seen merely in narrowly rational terms. For Dewey, reflective thinking is more holistic and organic, incorporating social, moral and political aspects of the contexts in which it occurs. This is why Dewey's influence in formal education has actually been rather less than has often been claimed. The structure of formal schooling has ensured that the reflective thinking that is encouraged in the classroom is restricted to a very narrow range of learning contexts – hence the chronic problem of students' inability to connect their learning with the broader range of life's contexts. While professional practice itself also occurs in a restricted range of contexts, this range is still very much wider than what is available in the classroom. Thus many of the reflection-based theories about professional education that have been proposed in recent years could be said to present a significantly Deweyan perspective, whether consciously or not, on professional practice.

However, Dewey's holistic view of human growth and its accompaniments, such as reflective thinking and problem solving, has attracted critical attention over the years. Bertrand Russell was responsible for a particularly influential critical exchange with Dewey, conveniently collected together in Meyer (1985). For

Dewey the starting point of inquiry is a problem situation. But given another key Deweyan principle of the continuity of nature, Russell argued that any aspect of the universe is potentially a part of a problem situation. Hence, he concluded, Dewey's holism commits him to the view that a problem situation can embrace no less than the whole of the universe. In which case, the theory of problem situations would have little explanatory value. As Burke (1994) argues, Dewey does have a way of limiting the size of situations. Nevertheless, Russell has here pointed to a general and recurring difficulty for holistic theories. The sheer complexity and range of factors involved in any situation under investigation are liable to render that situation unique. Hence it becomes difficult to say anything general about situations except in very broad terms. Perhaps this is a reason why so many of Dewey's works are viewed by readers as abstract and difficult. Certainly professional practice appears to be a phenomenon that involves a very complex and diverse range of factors. Could this be a reason why no adequate and generally accepted theory of it has yet emerged?

Reflection has been the major concept employed by the theoretical attempts to understand professional practice that have been discussed so far. The other major concept that figures in this literature is 'learning from experience' or 'experience-based learning'. Like reflection, experience-based learning is a term that has many meanings in the literature. Indeed, as Usher (1993) has pointed out, the notion of 'experience' is itself one whose meaning is not particularly standard. He suggests that 'experience-based learning' ranges from everyday learning from experience, which usually passes unnoticed, to experiential learning which is part of a highly selective and refined discourse. The variety of meanings of 'experience-based learning' has been widely acknowledged. According to Weil and McGill (1989) there are four main emphases for experiential learning. These are:

- 1 the assessment and accreditation of prior experiential learning
- 2 experiential learning to change higher and continuing education
- 3 experiential learning to change society
- 4 experiential learning for personal growth and development.

Each of these positions, as described by Weil and McGill, can be seen as relevant to the projects of understanding and improving professional practice and the informal learning that flows from it. Amongst other things, the first raises the role of the recognition of practice-based learning in continuing professional education. The second relates, for example, to the role of experiential learning in higher education professional preparation courses. The third, which refers to the work of Freire, Mezirow, and other writers, focuses on experiential learning for social and political change. While this may not be perceived by some as a prime concern of professional education, it is in fact basic to cases where professionals seek to bring about changes in social behaviour. Thus experiential learning for social and political change is highly relevant in the professional education of welfare workers, safe-sex educators and such like. Finally personal

growth and development are obviously major components of professional job satisfaction irrespective of the nature of the profession.

So the slippery notions of experience and experience-based learning join the notion of reflection as central concepts in the literature that is relevant to professional practice. In addition, it is very common in these writings to find a close connection being made between experience and reflection. For example, in the writings of Boud and his co-workers (1985, 1990, 1991, 1993), reflection of various kinds is proposed as the means by which assorted types of experience are turned into learning. Likewise, Marsick and Watkins, workplace learning theorists who acknowledge their debt to Dewey (Marsick and Watkins 1990 pp. 16–17), use experience and reflection as major concepts in their well known analysis of ‘informal learning’, and its supposed sub-set ‘incidental learning’. ‘Defining characteristics’ of informal learning, according to Marsick and Watkins (1990 pp. 15–24) include that it is ‘experience-based, non-routine and often tacit’ with ‘critical reflectivity’, ‘proactivity’ and ‘creativity’ as key conditions which enhance the effectiveness of such learning. As Marsick and Watkins expand on the factors that they believe underpin the various defining characteristics and key conditions which they claim promote effective informal learning, they provide a fine illustration of the point made above about the sheer complexity and diversity of this range of factors.

Confronted with this situation of complexity and diversity, some theorists have placed their emphasis on particular factors that they believe are especially influential in professional learning. For instance, Argyris and Schön (1974, 1978) highlight the importance of non-routine circumstances for stimulating significant experiential learning. They suggest that it is the non-routine that forces professionals into the kind of reflective thinking that changes beliefs, values and assumptions. They characterise such learning as ‘double loop’ in contrast to ‘single loop’ learning in which a problem is solved using the practitioner’s existing system of beliefs, values and assumptions. Argyris and Schön have also investigated the types of organisational climate that are conducive to double loop learning. In doing so, they draw attention to the notion of professional judgement and the means by which it is formed. This work of Argyris and Schön is part of the Dewey tradition, which is able to avoid the various criticisms, discussed above, of Schön’s later notion of ‘reflecting-in-action’.

Another developing research area that has contributed significantly to our understanding of professional practice is the study of expertise by cognitive psychologists. As was noted in section 6.6, this research significantly challenges the front-end model. It suggests that expertise involves the development of what are called domain-specific mental schemata (Glaser 1985, Tennant 1991, Yates and Chandler 1991) that enable the perception of large meaningful patterns that are not apparent to novices. Amongst other things, this domain-specific ‘know how’ enables experts to work faster and more economically than novices. According to this research, experts’ repertoires of highly developed mental schemata have been developed from experience. This means that novice practitioners cannot work in the same way as experts. Thus novice teachers, for

example, employ general principles learnt in their teacher education course to try to analyse and solve problems encountered in their first forays into classroom teaching. Expert teachers' mental schemata, however, automatically allow them to perceive new problems as reformulations of old ones and to quickly fashion appropriate responses. This kind of research finding has been taken to indicate that workplace learning is richer than had been assumed previously. However, the process by which novices' general theory is transformed by experience into mental schemata that are relatively context-specific is not well understood. These research findings about expertise are supported by the increasing realisation that graduates of formal courses are not yet equipped as competent practitioners. Hence the importance in various occupations of novices taking part in mandatory probationary periods, practicums and the like. Nursing is one profession where the expertise literature has been very influential in shaping understandings of professional practice.

While the expertise literature focuses on internal factors, such as the types of knowledge possessed by experts, the situated learning theorists seek to study the social and cultural dimensions of the workplace as they influence learning. Rather than the workplace merely being a site in which learning occurs, the nature of the workplace, including its social and cultural features, will play a key part in what is learnt (Brown *et al.* 1989, Chaiklin and Lave 1993). Situated learning theory displays a determination to avoid theory/practice type thinking. According to Lave (1988 p. 1): "Cognition" observed in everyday practice is distributed – stretched over, not divided among – mind, body, activity and culturally organised settings (which include other actors). Hence, Lave continues, the need to view 'cognition as a nexus of relations between the mind at work and the world in which it works'. The problem for situated learning theory is to progress beyond such holistic statements to an analysis that takes account of the very complex and diverse range of factors that are relevant to professional practice. The problem is not unlike the one faced by Dewey's views as commented on above.

The preceding discussion has surveyed some main theories that promise to help to advance our understanding of professional practice. Overall, it can be said that while these various theories all have something to offer, none of them thus far seems to have gained sufficient successes to be accepted as the dominant theory. A recurring theme in the foregoing discussion has been the problem of far too many variables for researchers wanting to investigate practice-based informal learning from work. What is needed is some way of conceptualising such learning that draws attention to main features of the phenomenon, while at the same time being sensitive to the potential contributions of the many variables that have been shown to influence informal workplace learning. However a number of fairly clear principles about informal learning from practice can be drawn from this survey as a whole. These principles are broadly identical with the six main features of practice-based informal workplace learning identified in section 6.7. In the final chapter of this book we provide an alternative model of informal workplace learning which we believe addresses the many relevant variables as well as encompassing the six main features of such learning.

7.8 The ongoing influence of the traditional dualisms

Partly because of the failure to develop a widely accepted alternative to theory/practice accounts of work performance, the traditional dualisms remain influential.

An instance of the ongoing influence of the general/vocational dualism on educational thought is provided by the impact of Ryle's work. Ryle (1949) in fact insisted on the priority and independence of 'knowing how' in relation to 'knowing that'. Unfortunately, despite Ryle's clear intentions otherwise, the lasting effect of his work appears to have been to provide a vocabulary which has helped to consolidate further in our discourse and thought the traditionally assumed theory/practice account of workplace performance.

Another illustration of these tendencies was the reaction from many in higher education to the notion of professional competency statements. As we argued in section 3.10, the more holistic and organic conceptions of professional competence can provide rich descriptions of practice, with underpinning knowledge and know how being integral to these descriptions (Gonczi *et al.* 1990, Hager and Beckett 1995). Yet the reaction of the higher education critics was to assert a priori that such descriptions could only capture routine, mindless doing. Evidently, the traditional dichotomous assumptions are still widely held.

A recent book by John White (1997), the noted philosopher of education, illustrates the persisting influence of the education/work dualism and the related dualisms that underpin it. Here is a book sub-titled *A New Philosophy of Work and Learning* that takes virtually no account of the learning that occurs at work. Nor does it consider work's possible educational value. How can a book offering a new understanding of work and learning not pay significant attention to the education and learning that might occur at work? The answer lies in White's intellectual framework, particularly in its definition of education.

The focus of White's book is 'the place of work in personal flourishing and in education' (p. 4). For this purpose, he assumes that 'a highly general' account of the nature of work 'will probably suffice'. What White is proposing is a philosophical account of the good life from which the appropriate role of work will be deduced. This highly general account of the nature of work is based on an intellectual framework for the book in which work is a form of activity, one 'designed to eventuate in some end-product' (p. 10). This seemingly innocuous definition is further elucidated in terms of various distinctions, the main one being 'heteronomous vs. autonomous'. These fill out the first part of White's intellectual framework. For White, *heteronomous* work is work in which the end-product is not chosen as one of one's major goals, while in *autonomous* work the end-product is chosen as one of one's major goals. The focus on goals arises because, according to White, 'a life can be said to be more flourishing, that is, is higher on a scale of well-being, the more the agent's major goals in life are fulfilled' (p. 5).

White's account is bolstered by several other ideas, including a distinction between 'autonomous work' and 'autonomous agency in work' (p. 7). Whereas in the former, the worker has chosen to engage in work in which the end-product is

one of their major life goals, in the latter, workers have plenty of scope to choose how they organise their work, but the end-product does not figure very highly in their major life goals. White suggests teachers, nurses and artists as common examples of the former, and stock-brokers and managers in insurance firms as examples of the latter. Our main difficulty with White's theory is that the generality and abstractness of his definition of work, together with his particular account of education, ensures that no significant overlap is possible between the two. But this contradicts what we take to be some well known and important facts about some people's experience of work. It also contradicts the main thesis of this book that rich learning occurs in the practice of work, learning that any sound account of the nature of education should recognise.

Why does White start from such an abstract definition of work? The answer lies in his examination and rejection of the main theories of work proposed by others. White considers four kinds of theories about work:

- 1 those that argue that work is a basic human need
- 2 those that argue for the importance of meaningful work for all on other grounds
- 3 Hannah Arendt and her distinction between work and labour
- 4 sceptics who reject the work culture.

White gives reasons for rejecting the first three of these and is left in sympathy with those who challenge the assumption that work is central to human flourishing. His rejection of the main positive accounts of work leads to the second part of the book's intellectual framework. White concludes that we need to start further back with what it is for a person to lead a flourishing life. Only then will we be in a position to offer a constructive account of the place of work in a human life. According to White, human well-being or flourishing is enhanced in a society to the extent that everyone is put 'in a position to achieve their major goals as autonomous, ethically sensitive agents', which includes 'satisfying the preconditions of this in the form of human needs basic to our kind of life' (p. 48). White points out that 'the "major goals" which enter into the notion of well-being and a fortiori autonomous well-being do not necessitate end-products' (p. 46). White offers examples of such major goals that may not have end-products such as listening to music, spending an evening with friends, and making love. These ideas are the second part of White's intellectual framework.

Because these latter major goals that lack end-products are sufficient to shape a flourishing human life, White denies that work, even of an autonomous kind, is necessary for the good life. (This follows by definition since, for White, all work has end-products.) Hence, autonomous work 'is one possible ingredient in the good life, but it has its legitimate competitors' (p. 52), including pleasurable activities that do not produce end-products. White identifies three kinds of end-products of autonomous work. These are goods and services useful to other people: goods of personal significance to oneself; and more impersonal goods such as intellectual products (scientific theories, histories, etc.). He goes on to

consider a range of attractive features of some existing jobs such as the trappings of high status, opportunities for social interaction and social recognition, power over subordinates, high salaries and pension packages, private health benefits, company cars, business lunches or ample breaks, a physically pleasant working environment, generous leave, and wide scope for decision-making. Are jobs with these characteristics examples of autonomous work? Not necessarily, because jobs that have these characteristics often issue in end-products which are not major life goals of their incumbents. Indeed, against the criterion of human flourishing, White views such motivations as high status or power over subordinates as very dubious.

From this, White goes on to provide answers to such questions as, 'Can heteronomous work be eliminated?' and 'Can all work be made autonomous even though work is not the only way to human flourishing?' While White thinks that some level of heteronomous work is unavoidable, he concludes that there is significant room to reduce its total amount in society. He sketches two scenarios, one ('the status quo') in which largely heteronomous work continues to be central, the other ('the activity society') in which heteronomous work is for everyone far less dominant. In the activity society there no longer will be a social stigma in being jobless, the virtue of industriousness will be dethroned, and idleness will no longer be deplored. White recognises that this would involve major social change and that many of the details of this scenario are uncertain. He gives significant attention to the role of education in producing the activity society and to what education should be like in the activity society. The broad answer, of course, is that it should be somewhat different than it is now.

All of this follows fairly smoothly if you accept the intellectual machinery that White has set up. However, we have some difficulties with this machinery. In particular, we question the value of the autonomous work/heteronomous work distinction. Throughout the book, White insists on coupling his definition of work as a form of activity 'designed to eventuate in some end-product' with his claim that it is a pre-condition for work to be autonomous that the worker has the end-product as one their life's major goals. It follows from this that someone employed by an oil company, for example, can only engage in autonomous work if producing oil and its derivatives is one of their major goals in life. Yet we argue that some people find rewarding and fulfilling work in the oil industry, even though producing oil and its derivatives is not one of their major life goals. White would agree with this, no doubt citing the range of attractive features of some existing jobs listed a few paragraphs back to explain this situation. For him such features of a good job are morally dubious and will be discouraged in the activity society. However, we argue that some people find rewarding and fulfilling work in the oil industry for reasons that White's theory overlooks, reasons to do with personal growth and development that point to a need for some overhaul of his theory.

The problem, as we see it, is that by insisting that work be thought of in terms of ultimate end-products, White ends up with autonomous work and heteronomous work as his ultimate categories as described above. In our view,

this categorisation is not successful because it fails to take proper account of central cases of work that people find life-enhancing and conducive to their flourishing in which the end-products are a secondary consideration. What we are thinking of here is the fact that many people have as a major life goal to gain a job that they find challenging, stimulating, rewarding and satisfying. However, by the terms challenging, stimulating, rewarding and satisfying, people typically mean something other than the attractive features of a good job earlier considered by White. These largely depended on material and social rewards, many of which were premised on their being not widely available to the workforce at large. As such, White plausibly found these to be morally dubious.

What White nowhere considers in any detail in his book is that many people gain from work personal growth and development, significant learning, satisfaction of attaining goals, etc. In a word, what such people value so highly is education, in fact an education from life. Many of the examples discussed in this book are of this kind. As we will see, White's view of the nature of education prevents him from seeing things this way. For someone who has this kind of personal goal, then, as long as the end-product of the organisation for which they work is ethical and socially useful, what does it matter whether they work for an oil company, an insurance company, or in the public sector? All one wants is work that is challenging, stimulating, satisfying, etc. – the end-products are irrelevant to one's major goals. In our view, this sort of case should count as autonomous work if anything does. White sometimes comes close to agreeing with this but his distinction keeps getting in the way. But if we are right about this central motivation for working that White completely overlooks, then autonomous work is more widespread than he claims it is.

As White recognises, people typically do have mixed motives. Through our own work we have met many types of professionals. Virtually all of them have some commitment both to furthering professionalism amongst practitioners and to the interests of the clients that are served by their profession. However, in most cases, it would be an overstatement to say that 'producing X is a major life goal' where X is the end-product of their profession. While something like this may have been a main initial motivation for taking up the profession, later they are more likely to focus on such things as a challenging, stimulating, satisfying or rewarding career. If they do not achieve this, our experience is that many of them try something else. The mixed motives no doubt include some level of White's features of a good job such as power and high status. But the point is that the motives also commonly include the need for challenging and stimulating work that involves a degree of satisfying learning. This professional learning is a kind of personal growth which should produce a better practitioner, and thereby, a better service. Here personal ends and others' ends coincide. As White notes, self-interest and altruism are not necessarily incompatible. This certainly applies to education and learning at work.

Despite all this, it is still staggering that a book offering a new understanding of work and learning does not pay any significant attention to the education and learning that might occur at work. The basic reason lies in the third part of

White's intellectual framework which provides his definition of education. This excludes work as a source of educative potential. Presumably, it is beyond dispute that there is a significant overlap between learning and work. What has been more controversial in the history of educational thought has been the extent to which there might be an overlap between education and work. Yet in this book, White defines both education and work in such a way as to rule out any significant overlap between the two. Thus education/work and cognate dualisms are maintained. For White, education is upbringing, by which he means bringing up a child to be 'a civilised member of the community' (p. 83). Thus, for White, the focus of education is squarely on children. White does acknowledge that education may extend to adulthood, but if so it is something of a defect, a sign that upbringing has been less than ideal.

Interestingly, White's definition of education rejects the traditional view of education as subject knowledge, but it shares with the traditional view the assumption that work is educationally uninteresting. When White's characterisation of work is placed beside his definition of education, it is apparent that there is little or no scope for work to be educational. Certainly heteronomous work, with its (at best) suspect scope to contribute to an autonomous, flourishing human life, looks to have very little educational potential. But autonomous work, which, we recall, is activity designed to produce end-products which are chosen by the worker as one of their major life goals, also cannot be educational according to White's definitions. This is so because the notion of an autonomous agent with settled major life goals and a capacity to engage in work that will achieve some of them implies that upbringing, as White uses the term, is more-or-less complete. So, on this view, there is little that the experience of work can add to the autonomous worker's education. One response to this argument might be to attenuate White's notion of upbringing to allow education to continue throughout much of the human lifespan. We are more inclined to reject his definition of education as being too narrow.

The fact that the three components of White's intellectual framework taken together ensure that work cannot be significantly educational may explain his readiness throughout the book to attribute baser motives, such as power over others and high status, to people who are happy in work that is heteronomous according to his definition. However, if we add motives excluded from White's framework, such as personal growth and development through work that is educational, we gain a clearer picture of why, as White admits, what he calls heteronomous work is ubiquitous, and people even enjoy it. Of course, we are not claiming that this accounts for all of White's 'heteronomous work'. Rather, we dispute the value of his distinction, and suggest that even in his own terms, much more work is autonomous than he allows.

Bolstered by its underpinning education/work dualism, White's analysis is, in the end, too abstract and remote from peoples' actual experience of work to answer satisfactorily the questions that it poses. The logical apparatus of work defined as activity towards end-products combined with worker motivation viewed as attainment of remote goals hardly touches the richness of much actual work.

7.9 The emerging paradigm of learning

In the previous chapter, the following main features of practice-based informal workplace learning were identified and explained:

- 1 it is organic/holistic
- 2 it is contextual
- 3 it is activity- and experience-based
- 4 it arises in situations where learning is not the main aim
- 5 it is activated by learners rather than by teachers/trainers
- 6 it is often collaborative/collegial.

These features of practice-based informal workplace learning were shown to be incompatible with the standard paradigm of learning. However there has been another significant view of learning that characterises it as action in the world. On this view, learning changes both learners and their environment. Since learners are part of that environment, the basic formulation of this theory is that the outcome of learning is to change the world in some way. Rather than being simply a change in the properties of the learner (the standard paradigm), the outcome of learning according to this theory is the creation of new set of relations in an environment. This is why learning is inherently contextual, since what it does is to continually alter the context in which it occurs.

This action-focused theory is an emerging paradigm of learning because, though a diverse range of critical writings on education can be seen as pointing to this new paradigm, it is still a long way from gaining the wide recognition and support characteristic of an established paradigm. Several educational ideas that point the way to this emerging paradigm will now be discussed briefly. Along the way, major features of the theory will emerge. The ideas to be discussed are:

- 1 Dewey's contribution
- 2 the role of action in learning
- 3 insights from Wittgenstein
- 4 the capacities presupposed by learning.

7.9.1 Dewey's contribution

Dewey was a noted critic of dualisms, such as the mind/body dualism, and of spectator theories of knowledge. For Dewey, learning and knowledge were closely linked to successful action in the world. While Dewey did not deny that concepts and propositions were important, he subsumed them into a wider capacity called judgement which incorporates, along with the cognitive, ethical, aesthetic, conative and other factors that are omitted from the essentially cognitive standard paradigm of learning. Some idea of the scope and significance of Deweyan judgement can be gleaned from the following succinct summary provided by Hickman:

Dewey's view also differs from mainstream theories of logic in terms of what it is that judgement accomplishes. It is a commonly held view that the point of judgement is to make a difference in the mental states or attitudes of the judging subject. But Dewey thought that this view yields too much to subjectivism. According to his own view, the point of a judgement is to make a difference in the existential conditions which gave rise to the inquiry of which the final judgement is the termination. Changes in wider existential situations may involve alterations of mental states and attitudes, to be sure, since mental states and attitudes are also existential. But to ignore the wider existential situation and to focus exclusively on mental states and attitudes is to open the door to the prospect of pure fantasy.

(Hickman 1998 pp. 179–80)

Note that Dewey is not totally discarding the explanatory items of the standard paradigm of learning. Rather they are part of his larger explanatory scheme. Thus, for him, the standard paradigm of learning is best seen as a limited and special instance of the emerging paradigm of learning.

7.9.2 The role of action in learning

Here is a standard definition of learning: 'The acquisition of a form of knowledge or ability through the use of experience' (Hamlyn, in Honderich 1998). At first sight this suggests learning is an active process, as the 'use of experience' implies. However the passive spectator of the standard paradigm of learning can be seen as using experience in order to furnish the mind, so it seems that activity in the usual sense may not be required by this definition.

Someone who has something stronger in mind is Jarvis (1992) who argues that 'learning is intimately bound up with action' (p. 85). He views learning as a 'process of thinking and acting and drawing a conclusion' (p. 84). He suggests it occurs when presumptive (almost instinctive) action is not possible. Thus, for Jarvis (as for the emerging paradigm of learning), the norm is for learning to involve an action component. Learning that lacks this action component, such as contemplative learning, is abnormal learning – 'the other learning processes involve a relevant and important action component' (p. 85). So Jarvis upends the standard paradigm that privileges contemplative learning at the expense of all other kinds of learning. He holds the standard paradigm of learning responsible for the phenomenon of people rejecting as learning what does not fit under its assumptions (the 'denial of learning' syndrome) (Jarvis 1992 p. 5).

As noted earlier, one implication of the standard paradigm of learning was a sharp separation of the processes and products of learning. This distinction is plausible whenever learning is separated from action. However, when learning is closely linked with action, the two are not sharply distinguished at all. The process facilitates the product which at the same time enhances further processes and so on. Further critique of the rigid separation of process and product is found in the work of Wittgenstein which is considered next.

7.9.3 *Insights from Wittgenstein*

The following insights into learning (expounded in detail by Williams (1994)) are central to Wittgenstein's later philosophy. They are also highly relevant to the emerging paradigm of learning:

- The basic case of teaching (training) is not about mentalistic concepts being connected to objects (as in ostensive definition and rule following). Rather, it is about being trained into pattern-governed behaviours, i.e. learning to behave in ways that mimic activities licensed by practice or custom, learning to act on a stage set by others.
- Genuinely normative practices (i.e. ones not causally necessitated, but structured by, and admitting of evaluation by reference to a standard, norm, or rule) are social. A period of training or learning is necessary to become a practitioner.
- All use of concepts presupposes a background technique for using the concept, a technique that cannot be expressed as a set of concepts or rules. So the concept (rule) is not foundational of all else. Technique is not reducible to concept (theory not reducible to practice).
- Training in techniques creates the regularities of behaviour necessary for any judgement of sameness, in this way the process of learning is constitutive of what is learned. So judgement of sameness not based on a mental state.

It follows from the above that meaning not established internally by individual minds, rather meaning emerges from collective 'forms of life' (Toulmin 1999 p. 55). As Toulmin argues, 'All *meanings* are created in the public domain in the context of *collective* situations and activities' (p. 58). Toulmin adds that, of course, once meanings are created in this way, they can be internalised by individuals. But the point is that, in contradiction to the standard paradigm of learning, meanings are not essentially internal. He refers to Vygotsky's work in illustration of this (p. 58). Two key points follow.

- First, there are various kinds and cases of internalisation, such that: 'Far from being a single clear-cut procedure, internalisation therefore embodies a *family* of techniques that make mental life and activity more efficacious in a number of very different ways'. (p. 59)
- Second, learning begins with interaction in the public domain, i.e. some form of action is basic to learning with internalisation of the learning coming later.

Once again, the emerging paradigm of learning is not totally discarding the explanatory items of the standard paradigm. Rather they are part of a larger explanatory scheme. Thus, once again, the standard paradigm of learning is best seen as a limited and special instance of the emerging paradigm of learning.

7.9.4 *The capacities presupposed by learning*

According to Passmore (1980) capacities are a major, perhaps the major, class of human learning. For Passmore, in normal cases, ‘every human being acquires a number of capacities for action ... whether as a result of experience, of imitation or of deliberate teaching’. (p. 37). Examples that he gives are:

- learning to walk, run, speak, feed and clothe oneself
- in literate societies, learning to read, write, add
- particular individuals learn to drive a car, play the piano, repair diesel engines, titrate, dissect, etc.

However, not all human learning consists in capacities, according to Passmore. He gives as examples (p. 37) development of tastes (e.g. for poetry), formation of habits (e.g. of quoting accurately), development of interests (e.g. in mathematics), and acquiring information. However, Passmore has each of these themselves being dependent on capacities: to understand the language; to copy a sentence; to solve mathematical problems; to listen, read and observe. So the argument is that capacities are basic for other kinds of learning. That is, according to Passmore, the mental enrichment, seen as basic in the standard paradigm of learning, actually depends on something else – the exercise of learned capacities.

Capacities are much more than mental in their scope, as is evident from their definition and characteristics, such as this example from Honderich’s (1998) definition of ‘capacity’:

A capacity is a power or ability (either natural or acquired) of a thing or person, and as such one of its real (because causally effective) properties.
(p. 119)

The entry goes on to describe natural capacities of inanimate objects, such as the capacity of copper to conduct electricity. These are dispositional properties whose ascription entails the truth of corresponding subjunctive conditionals. But the capacities of persons, the exercise of which is subject to their voluntary control (such as a capacity to speak English), do not sustain such a pattern of entailments and are consequently not strictly dispositions. Thus capacities are vital features of human learning.

Passmore goes on (1980 p. 40) to distinguish two types of capacities – open and closed: ‘A “closed” capacity is distinguished from an “open” capacity in virtue of the fact that it allows of total mastery’. Examples include playing draughts and starting a car. ‘In contrast, however good we are at exercising an “open” capacity, somebody else – or ourselves at some other time – could do it better’, for example, playing the piano. As Passmore’s range of examples of capacities – titrating, dissecting, healing, etc. – makes clear, their exercise often closely connects with the kind of judgement emphasised by Dewey.

From this brief survey, we can suggest that the emerging paradigm of

learning, which is proposed as a replacement for the standard paradigm, has the following main implications:

- knowledge, as integrated in judgements, is a capacity for successful acting in and on the world
- the choice of how to act in and on the world comes from the exercise of judgement
- knowledge resides in individuals, teams and organisations
- knowledge includes not just propositional understanding, but cognitive, conative and affective capacities as well as other abilities and learned capacities such as bodily know how, skills of all kinds and so on; all of these are components conceivably involved in making and acting upon judgements
- not all knowledge can be or has been expressed verbally and written down
- acquisition of knowledge alters both the learner and the world (since the learner is part of the world). This is the fundamental sense in which learning is relational (see section. 4.12).

These features of the emerging paradigm of learning can be further clarified by expounding the general thinking on which the paradigm is based. It has a holistic, integrative emphasis that aims to avoid dualisms such as mind/body, theory/practice, thought/action, pure/applied, education/training, intrinsic/instrumental, internal/external, learner/world, knowing that/knowing how, and process/product. The argument is that judgements, as both reasoning and acting, incorporate both sides of these ubiquitous dualisms. Thus, this learning paradigm does not reject as such either pole of these dualisms. For instance there is no rejection of propositional knowledge. Rather, propositions are viewed as important sub-components of the mix that underpins judgements – though the range of such propositions extends well beyond the boundaries of disciplinary knowledge. What is rejected is the view that propositions are the epitome of knowledge, and have a timeless, independent existence. The emerging paradigm of learning brings together the propositional with the active, and always judges propositions according to their contribution to judgement-making. Because the judger is immersed in the world, so are propositions; they lose their classical transcendental status. (For more details on judgement, see chapter 9 of this book, and Hager 2000a, 2000b.)

The emerging paradigm of learning includes both poles of the above dualisms, whereas the standard paradigm of learning deals with only the first of the respective pairs of poles. It therefore follows that the emerging paradigm incorporates the standard paradigm rather than discarding it entirely. Instances of learning that are central to the standard paradigm are not rejected as learning by the emerging paradigm. It is just that they are no longer the central, or typical, cases of learning. So the newer emerging paradigm can be seen as a corrective rather than a complete replacement.

The main characteristics of the emerging paradigm of learning obviously have strong connections and commonalities with the main features of practice-

based informal learning from work that were identified and explained in the previous chapter. The holism of the emerging paradigm in its inclusion of the many different kinds of learning fits well with the organic holism of practice-based informal learning. The focus on action and effecting change likewise fits comfortably with activity – and experience-based emphasis of practice-based informal learning, as well as its contextuality. The ingredients of this paradigm were listed at the end of section 3.5. The emerging paradigm's recognition that not all knowledge is explicit is consonant with practice-based informal learning often arising in situations, such as detailed in chapter 3, where learning is not the main aim. Likewise, both the emerging paradigm of learning and practice-based informal learning recognise the importance of individual activity as well as collaboration and collegiality in learning.

7.10 Conclusion

Traditional educational thought has been shaped by a plethora of enduring dualisms. We are concerned in this book with the dissolution of those dualisms, since we believe that successful practice and the learning that accompanies it move the focus of vocational preparation from the front-end model (which reinforces the dualisms, by definition) to a more contiguous model, where learning and work are intertwined in various formal and informal admixtures. In the final chapter we will propose the notion of judgement as the basis for a contiguous model. In the meantime, the emerging paradigm of learning presents some general features of such a model.

The emerging paradigm of learning has been proposed as superior to the standard paradigm. However, it needs to be emphasised that rather than the two theories being polar opposites, the standard paradigm of learning is best seen as a limited and special instance of the emerging paradigm of learning. However, the role of learning in the contemporary era is so vital that we can no longer allow its understanding to be distorted by mistaking what is merely a limited and special case for the norm.

8 Conceptualising practice in postmodernity

Notable factors in the rise of rivals to the front-end model, as discussed in chapter 6, included change and the contextuality of knowledge. If one intensifies these a little so that change encompasses crisis and a sense of things being ‘out of control’ and so that contextuality includes a focus on language, diversity and difference, you are confronted by some of the main themes of postmodernism. While the nature of postmodernism – and related but different notions such as post-structuralism and post-foundationalism – are currently the subjects of much lively discussion and argument, detailed consideration of this scholarly debate is beyond the scope of this book. However, it is clearly necessary for us to provide some discussion and justification of how the term ‘postmodernism’ is employed in our book, particularly since, as we stated in Part I, we see ourselves (following Lemert 1997) as ‘strategic postmodernists’.

8.1 Varieties of postmodernism

The term ‘postmodernism’ is one that applies to a diversity of themes and ideas. Since different authors are apt to emphasise some of these themes and ideas more than others, it cannot be claimed that all postmodernists subscribe to the same set of beliefs. This situation is further complicated by the fact that post-structuralism, while sharing some themes and ideas with postmodernism, also has its own distinctive concerns. For the purposes of this book, we prefer the term ‘postmodernism’ since this term is most closely identified with a cluster of trends and ideas that we wish to consider in some detail. We argue that this cluster of trends and ideas is very helpful for understanding informal workplace learning, the core topic of this book. The cluster of trends and ideas that we employ in this book can be located best in the broad field of postmodernism by linking them to a classification suggested by Faigley (1992 p. 5 ff.). Faigley proposes illuminatingly that discussions of postmodernism can be sorted into three metadiscourses, as follows:

- 1 aesthetic discussions of *postmodernism*
- 2 philosophical discussions of *postmodern theory*

3 sociohistorical assertions that Western nations, if not indeed all the world, have entered an era of *postmodernity*.

1 Aesthetic discussions of postmodernism centre on ruptures with modernism and can be traced to developments in literary criticism in the late 1950s. By the 1970s postmodernism was flourishing in art, film, theatre and architecture. In the 1990s aesthetic discourses on postmodernism centred on the problem that, while modernism had been exhausted, leaving a ‘canon of “dead classics” postmodern art had lost the oppositional stance that distinguished modernism’ (Faigley 1992 p. 7). Since these aesthetic discussions of postmodernism are not the main sources of the postmodern ideas that this book draws upon, we will not outline them further here.

2 Philosophical discussions of postmodern theory were initiated by French philosophers in the 1970s. What started as a post-structuralist critique of the fundamental ideas of Western philosophy was transformed into a somewhat different way of thinking, though it is possible to exaggerate the extent of the discontinuity. These developments are complex – too complex to be dealt with thoroughly in this book. However, some main themes can be identified fairly readily by noting that the central focus of postmodern theory is a fundamental questioning of all notions of human progress or betterment stemming from Enlightenment thought. As Faigley (1992) puts it:

the key assumption ... is that there is nothing outside contingent discourses to which a discourse of values can be grounded – no eternal truths, no universal human experience, no universal human rights, no overriding human progress.

(p. 8)

This in turn means that:

foundational concepts associated with artistic judgement such as ‘universal value’ and ‘artistic merit’, with science such as ‘truth’ and ‘objectivity’, and with ethics and law such as ‘rights’ and ‘freedoms’ suddenly have no meaning outside of particular discourses and are deeply involved in the qualities they are alleged to be describing objectively.

(Faigley 1992 p. 8)

This means that postmodern theory rejects the idea of a privileged canonic understanding about any theory, including itself.

Various main themes of postmodern theory can be seen to grow out of these key ideas:

- the denial of a universal, objective and reliable foundation for knowledge
- the denial of science as the exemplar of rationality and true knowledge

- the denial of the neutrality of rationality and knowledge; rather they are viewed as inherently political and social
- the denial of the transparency of language
- the denial of a stable, coherent self
- a distrust of the efficacy of received narratives and institutions.

3 *Sociohistorical assertions that Western nations have entered an era of postmodernity* point to a number of features that are claimed to constitute the break between modernity and postmodernity. These include:

- the arrival of a post-industrial or information society characterised by rapid change and crisis rather than stability
- the entry of capitalism into a new phase
- the onset of a new phase within the manufacturing sector of the economy marked by a transition from Fordism and standardised manufacturing to post-Fordism and flexible, customised manufacturing
- the onset of a new economic phase marked by a transition from production of goods to production of knowledge
- the replacement of uniform mass culture by a plurality of tastes and lifestyle practices
- the replacement of consumption of objects by consumption of images.

In showing how postmodernism contains a range of ideas that assist in the development of a more useful account of the richness of informal and work-based learning, we will draw on both Points 2 and 3. In agreement with Point 2, our account of informal and work-based learning denies that real knowledge requires universal, objective foundations; that it is modelled on science; that it is neutral rather than influenced by the political and social. In agreement with Point 3, our account of informal and work-based learning focuses on the implications of a world that features rapid change rather than stability; in which knowledge is produced in the practice of living (for example, at work); and in which there is an emphasis on difference and diversity. In so doing, we suggest that the effective contemporary worker is accurately described as a ‘postmodern practitioner’. However, this does not mean that we have no disagreements with some ideas and themes that have been labelled ‘postmodern’. Those aspects of postmodern thought that we question will become clear from later discussion. Thus we describe our position developed in this book as ‘strategic postmodernism’.

8.2 Postmodern features of practice-based learning from work

The implications of postmodernism for education have been enunciated by, amongst others, Burbules (1995), Usher and Edwards (1994), Blake (1996), and Blake *et al.* (1998). However, the main focus of these authors is formal education,

usually schooling; the informal learning that is the central topic of this book is not a significant concern of these authors. The senses in which practice-based informal learning at work in the present era is postmodern can be demonstrated by outlining the way in which a series of seven postmodern trends characterise central aspects of contemporary work activities. These seven postmodern trends, discussed in turn in the following sections, are:

- a celebration of change and crisis
- a loss of confidence in and incredulity towards existing narratives and institutions
- an emphasis on difference, diversity, and fragmentation of identity
- a focus on the particular and the local
- a recognition of the political and social dimensions of knowledge
- overcoming dualisms – organic rather than binary logic
- a major focus on the power of discourse.

In chapter 6, the following main features of practice-based informal learning from work were identified and explained:

- 1 It is organic/holistic
- 2 It is contextual
- 3 It is activity- and experience-based
- 4 It arises in situations where learning is not the main aim
- 5 It is activated by individual learners rather than by teachers/trainers
- 6 It is often collaborative/collegial.

These main features of practice-based informal learning from work can be readily linked in various ways to the seven postmodern trends. The organic/holistic feature of informal learning links closely with the integrative emphasis of postmodernism that aims to overcome dualisms such as mind/body, theory/practice, thought/action, pure/applied, education/training, intrinsic/instrumental, internal/external, learner/world, knowing that/knowing how, process/product and so on. The contextuality of informal learning links closely with most of the seven postmodern trends, especially change and crisis; difference, diversity and fragmentation of identity; a focus on the particular and the local; and the influence of the political and the social on knowledge construction. As well, postmodernism puts a focus on the role of language in contextuality.

The activity- and experience-based feature of informal learning links to the issue of agency, which we will argue (in section 8.9) can be seen as a problem for some postmodernists. The feature of informal learning that it arises in situations where learning is not the main aim points to its contingency, which contrasts with the necessity and logical ordering that characterises the formal curriculum. Thus, the contingency of informal learning links closely with the loss of confidence in and incredulity towards dominant narratives and their logocentric

criteria. The final two features of informal learning – that it is activated by individual learners while at the same time often involving collaboration and collegiality – link closely with some of the political and social dimensions of knowledge creation. So, overall, these postmodern trends have suggestive compatibility with practice-based informal learning from work.

Each of these seven postmodern trends will now be discussed in turn, though, as the discussion will make clear, there is some overlap between these ideas.

8.3 Celebration of change and crisis

Whereas for modernism change and crisis need to be dealt with and managed in such a way as to return to stability, postmodernism does not view rapid changes and attendant crises as aberrations. Rather, they characterise and confirm the arrival of a post-industrial or information society. Such a society has as a prime feature a feeling of living at the cross-roads of crisis, one which continually encourages people to redefine themselves, to adopt a different identity. Bauman (1997) graphically characterises this state of affairs:

The postmodern condition has split the one big game of modern times into many little and poorly coordinated games, played havoc with the rules of all the games and shortened sharply the life-span of any set of rules. Beyond all this slicing and splicing one can sense the crumbling of time, no more continuous, cumulative and directional as it seemed a hundred or so years ago; postmodern fragmentary life is lived in an episodic time, and once the events become episodes they can be plotted into a cohesive historical narrative only posthumously; as long as lived, each episode has only itself to supply all the sense and purpose it needs or is able to muster to keep it on course and to see it through.

(p. 14)

The crisis created for the front-end model of education by rapid change has been highlighted previously. A modernist response to this situation is to tinker with the educational programs that exemplify the front-end model in the hope of alleviating the crisis and thereby returning to stability. However, as we have argued, this model of vocational preparation is simply not fitted to deal with the historically unprecedented rapid and accelerating change that is now shaping work of all kinds.

We may take but a few examples. Banking work has been completely transformed by microelectronic technology and continues to be further transformed. The very existence of optometry as a profession is being challenged from two directions – ophthalmologists increasingly can perform corrective eye operations that displace the need for optometrical services, while on the other hand mechanisation is increasingly deprofessionalising the dispensing of spectacles and contact lenses. As the law becomes increasingly complex, generalist lawyers are increasingly being displaced by specialist lawyers.

In situations like these, what is needed is not new subjects in the front-end educational program so much as the preparation of practitioners who will welcome change as the stimulus for new and innovative learning experiences that will alter and redefine the shape and focus of their practice. Certainly, the practitioners who survive and flourish in these conditions will likely take career directions that were not fully foreseeable when they started their careers.

Change and crisis are important aspects of the contextuality of informal learning from work. Their roles will be considered further in the next chapter where the significance of context for judgements will be examined.

8.4 A loss of confidence in and incredulity towards existing narratives and institutions

As Burbules (1995 p. 1) points out, enunciating the implications of postmodernism for education is complicated by the fact that postmodernism 'is not a specific theoretical position itself, but an intellectual trend that comprises several quite different theoretical or philosophical theories'. Amongst others, these include post-structuralism or deconstructionism. According to Burbules, the crucial feature of postmodernist arguments is that they represent a novel type of critique in the intellectual landscape. This novel critique does not seek to reject, deny or refute modernism and replace it with something else. Rather, postmodernism leads us to a position of incredulity towards modernism. That is, the postmodernist era is one in which we cannot do without the theories and explanations of modernism, but neither can we bring ourselves to maintain wholehearted belief in them. Thus, says Burbules, 'postmodernism is actually more profound, and more disturbing ... than any simple anti-rationalism or relativism' (1995 p. 5). Burbules notes three social circumstances that together have served to accelerate this incredulity towards modernism. We stated these in chapter 1, but they deserve reiteration here:

- A growing awareness of the radical diversity and potential incommensurability of the different cultural forms of life that sustain groups and individuals.
- A growing realisation that certain dynamics of asymmetrical power, which distort and compromise even the best of human intentions, are inherent to the institutional and informal patterns of life in which humans are engaged.
- A growing realisation of the limitations of language and discourse. Because human languages are diverse, and non-congruent, there will always be a limit upon any particular discursive system as a standpoint, in a place and time, within which one can try to describe all matters of truth, value and so forth. The contextuality and fluidity of language is stressed as never before. Thus, there are always gaps and discontinuities in our discursive system.

So, postmodernism is not so much a rival competitive theory for other broad theories within modernism as it is a new attitude towards modernism. Whereas the point of rival theories is that each is concerned to be regarded as having the

strongest claim to being true (or, at least, being the most plausible), postmodernism is not concerned with truth claims but with something else. It could be said that postmodernism questions not so much the truth of theories as their value.

As earlier sections have made clear, our own position is that the front-end model, and the broad theory of education that it embodies, are not really all that plausible despite their long historical ascendancy. We are aiming to offer a better model based on a sounder theory. To that extent we are operating within modernism. However, we find that our project shares key themes and ideas with two of the main strands of postmodernism outlined earlier (that is, philosophical discussions of postmodern theory, and sociohistorical assertions that Western nations have entered an era of postmodernity). Our theory of practice-based informal learning from work closely accords with a number of postmodern philosophical ideas, particularly its account of knowledge. Likewise, the sociohistorical assertions about the era of postmodernity support our theory as they help to explain the emerging lack of faith in the front-end model that was discussed earlier (in chapter 6). Our position of drawing support from a range of postmodern themes while simultaneously advancing and recommending a theory of informal workplace learning is not unusual. As Constas (1998 p. 29) points out, there are plenty of instances:

when postmodern writing in education does not shrink away from the opportunity to make suggestions related to practical transformation. However, one characteristic of this writing is that its affiliation with postmodern discourse is restricted because those who work toward a practical end are necessarily forced to part company with aspects of postmodern that devalue ideals such as progressive improvement, liberation, and unified social resistance. The theoretical justifications for these ideals are not the products of postmodernism but are instead connected to modernist thinkers.

(p. 29)

Constas suggests that researchers have but two alternatives to this fusion of elements of both postmodernism and modernism. One is to refuse to draw conclusions from one's work. Constas cites Usher and Edwards (1994) as an example of this strategy, which he suggests typifies what Eagleton (1997) dubbed the 'cult of ambiguity and indeterminacy' found in much postmodern writing. The other, and probably worse, alternative is to offer conclusions 'in a turgid style of writing' that 'may be unintelligible and largely impractical' (Constas 1998 p. 28). This second alternative opened the way to Sokal's successful hoax in 1996 when his deliberately nonsensical paper on postmodern physics was published by the journal *Social Text* (see Sokal and Bricmont 1998).

The relevance of the loss of confidence in existing narratives and institutions for informal learning from work is that it emphasises the contingency of such learning. In the sometimes messy world of practice, pre-existing theories are unlikely to offer all of the answers, thereby emphasising the importance of sound

learning from practice by practitioners. The bank employees, optometrists and lawyers whose jobs are being rapidly transformed (as described in section 8.3) are experiencing the contingency of institutions at first hand. A related phenomenon is the collapsing confidence in the front-end model of vocational preparation which was discussed in chapter 6.

8.5 An emphasis on difference, diversity, and fragmentation of identity

As we have just seen, Burbules claims that one of the social circumstances fuelling incredulity towards modernism is awareness of the 'radical diversity and potential incommensurability of the different cultural forms of life that sustain groups and individuals'. Amongst the supposed social circumstances that postmodernists point to as creating this awareness are:

- a universal melting of identities
- de-regulation and privatisation of identity-formation processes
- dispersal of authorities
- polyphony of value-messages.

The result of all these trends is a growing feeling of fragmentariness and dislocation in peoples' lives. We can readily identify some of these trends in contemporary workplaces. For instance one of the authors is currently involved in a research project that is investigating workplace reform in the Australian building and construction industry. Along with the current rhetoric of flexible teams and flatter management structures that operates across industries, this particular industry has gone through its own set of major upheavals in the ways it operates. Following a Royal Commission that identified endemic corruption, the industry has undergone drastic change of a kind that goes well beyond the realm of rhetoric. This has included:

- an end to demarcation of occupations with many workers becoming multi-skilled
- changes in tendering practices with stringent conditions attached to the large government contracts that comprise a major part of the industry
- enterprise bargaining relating to wages and conditions
- a much greater emphasis on workplace safety resulting in very significant declines in injuries and deaths.

The research revealed that these workers had no difficulty in identifying examples of the above four social circumstances that postmodernists claim create awareness of diversity and potential incommensurability.

The phrase 'melting of identities' is a good description of the changes the company workers reported as multiskilling of their work was implemented.

The de-regulation and privatisation of identity-formation processes was evident in several ways. A sharp reduction in the number of unions representing workers and a move from off-site, publicly-funded generic training to more site-specific, site-designed and site-delivered training were important factors. This meant workers were more likely to identify themselves with a construction company or a project than with a traditional occupation.

Growing dispersal of authorities was very evident. For example a major freeway construction project was directly answerable to a growing number of government and semi-government authorities (roads, environmental protection, water, workplace safety, etc.) as well as resident action groups. This meant regular meetings with and provision of information to each of these parties. As well, there was growing dispersal of responsibility. Whereas once only the construction company was open to fines and prosecution for breaches of environmental regulations, now individual foremen and workers are equally liable.

A polyphony of value-messages was evident. Workers in the research case studies reported that practices required by the newer emphasis on safety often clashed with the 'macho' tradition of the industry. So workers sometimes engage in unsafe practices to prove themselves. Likewise the growing environmental regulation of construction activities produces further clashes with the 'macho' tradition. For instance, installation of traps around the site perimeter to prevent run-off was perceived as low status work not befitting 'real' construction workers.

Given the central role of work in self-definition and identity formation, the role of the postmodern workplace is clearly crucial for those in work. More generally, informal learning from life experiences, both positive and negative, will shape and reshape identity.

However, while postmodernists emphasise difference, diversity and loss of identity, and some writers sound as though they wish to exclude the opposites of these, such exclusion clashes with the typical postmodern concern to overcome dualisms. So a concern of postmodernists should also be to reconcile sameness and difference, unity and diversity, etc. This approach is exemplified in a paper by Burbules (1996). Noting that there has been an ongoing tension between sameness and difference in educational thought and practice, Burbules points out that the 'simple opposing of difference to sameness does not lead to a deep enough understanding of why difference is important, especially for educational concerns' (1996 p. 118).

While Burbules' focus is very much to make the notion of difference central in educational thought (at the expense of the usual dominance of notions of sameness), he also points out that difference is in inevitable dialectical interplay with sameness or commonality. He demonstrates this by outlining and analysing five different sorts of difference:

- difference of kind
- difference in degree
- difference of variation
- difference of version
- relative difference via analogy.

In each case Burbules finds that an understanding of the particular sort of difference requires reliance on some notion of sameness. For example, variations consist of different combinations of and emphases upon certain elements of the same basic group. Hence, rather than replacing sameness by difference, richer types of postmodernism recognise the need to overcome this dualism or dichotomy. This point has wide application. For instance many postmodernists write as though the decentred or fractured self is just that, a set of disconnected and discontinuous components. However, a more sophisticated postmodernist would recognise the dialectical interplay between disconnection/discontinuity and connection/continuity. After all, a complete fragmentation of identity leaves no way of assigning 'bits' to any one person as against another. It is only by having some component of continuity that it makes sense to connect identity fragments with the same 'person' as against them being entirely discrete and free-floating. It is noteworthy that the interviewees in the above construction industry research project reported significant identity change in becoming multi-skilled workers as well as a strong continuity with their past identities formed in the pre-reform building and construction industry.

The consonance of this more sophisticated postmodernist approach with the whole person organic logic which we have been featuring in this book should be plain. Likewise the interplay of difference and sameness, as analysed by Burbules, is important for our account of practice and the role of anticipative action in this practice. For example, anticipative action that feedsforward so as to continually renegotiate ends and means (described in section 2.15), will be greatly dependent on judgements of difference and sameness, and the small variations between them.

As was the case with change and crisis, difference, diversity, and fragmentation of identity are important aspects of the contextuality of informal learning from work. The dialectical interplay of difference and sameness will be crucial contributors to the judgements that we will be characterising in the next chapter. As well, the roles of difference, diversity, and fragmentation of identity will be considered further in the next chapter where the significance of context for judgements will be examined in more detail.

8.6 A focus on the particular and the local

As against the modernist epistemological predilection for generality and universality, postmodernism celebrates the particular and the local. However, despite its suspicion of grand narratives, postmodernism should not be understood as

completely rejecting generality and universality in favour of the purely particular and local. As the discussion of Conostas (1998) in section 8.4 implied, post-modern research that deals only with the particular and the local becomes a *reductio ad absurdum* of the notion of research. There is a problem here only if postmodernism is taken to embrace only one pole of the particular/universal and local/global dualisms, while rejecting the other pole. But this extreme stance is unnecessary. As was the case with difference/sameness, we argue that particular/universal and local/global are false dualisms that any sound theory needs to overcome. The notions of universal and particular are inextricably linked with one another. After all, universals are inferred only from experiences of particular phenomena. Likewise, it is only because disparate phenomena are experienced as having aspects of sameness that notions of universality arise. Similarly, notions such as the universal applicability of theories arise from their apparent success in explaining many particular cases that fall under the theory. It will be a feature of our account of judgements, presented in the next chapter, that both the particular and the universal play a role in that account since human judgements are always of particular cases which fall under various universal categories.

As pointed out repeatedly in this book, practice-based informal learning from work is by its nature highly contextualised. It is thereby significantly particular, local and contingent. However, one of the outcomes of such practice-based informal learning is that it can improve the future performance of the practitioner, or of other practitioners where there is collaborative or collegial sharing of the practice-based informal learning. Thus, along with its particular and local aspects, it partakes also of the general and even of the universal. An important sense in which practice-based informal learning from work is contingent is that it is activated for individual learners by the work that they happen to be doing (the cases that have walked through the door, the work assigned by their manager, the specialist concerns of the company that they work for, etc.) So rather than this learning following a logical pattern planned by teachers or trainers, its path is serendipitous in the extreme. Thus, the course of an individual's informal learning from work is likely to be unique, thereby providing another sense in which it is particular and local.

We have argued that practice-based informal learning from work partakes in both the particular and local and the general and universal. What about the formal learning that is the concern of mainstream education? Formal education is traditionally portrayed as focused on the universal, the general and the necessary; principles with these characteristics are preferred as subject content. Formal education is thereby contrasted with its alleged opposite, informal learning from work, which is seen as merely particular and local. We have shown that practice-based informal learning actually straddles these binary categories. As the emerging paradigm of learning outlined at the end of the previous chapter suggests, formal education also straddles these binary categories. Thus the traditional basis for regarding informal learning from work and formal education as 'chalk and cheese' disparate phenomena collapses.

8.7 A recognition of the political and social dimensions of knowledge

Postmodernism rejects the modernist view that knowledge stands aloof from the corrupting influence of power. For postmodernism, all knowledge claims are partial in one way or another. This position questions the very heart of the traditional disciplines. Knowledge is regarded as culturally and socially shaped, reflecting power relations as much as it does any notion of objective truths. Such thinking obviously poses major challenges for educators since, according to postmodernism, this influence of power over knowledge is not eliminable. As Burbules (1995 p. 42) puts it, 'certain dynamics of asymmetrical power, which distort and compromise even the best of human intentions, are inherent to the institutional and informal patterns of life in which humans are engaged'.

We are reminded here of the power relations inherent within the educational establishment itself, power relations that have persisted since antiquity, in which the disciplines reign supreme in their supposed purity, while formal vocational education, let alone practice and informal vocational learning, are tainted by their perceived instrumentalism. Given that the central challenge of postmodernism is to claims of universality and impartial pursuit of knowledge for its own sake, it might be expected that such matters would be central to postmodern critiques of education. There is some evidence of a beginning to this sort of critique in the rejection of the traditional hierarchy within the disciplines themselves in which sciences were privileged over non-sciences. However, we have not found any questioning of the other traditional hierarchies that privilege theoretical knowledge over practical knowledge and formal learning of all kinds over informal learning. The fringe role of vocational education remains intact. Yet, as we understand postmodernism, it suggests just such a radical questioning of received notions of knowledge. As it happens, it is for just such a radical questioning of received notions of knowledge that we are arguing in this book. Our starting point happens to be somewhat different from postmodernism, but we are pleased to have this further support for our position.

Given the strong impact of postmodernism on recent educational thought, why has the radical questioning of received notions of knowledge not happened? There appear to be several reasons. A major one is that most writers on education and postmodernism are themselves part of the formal education establishment (education academics, teachers, curriculum specialists, and the like). Thus, they have an often unconscious self-interest in maintaining the current grip of the formal education establishment (largely schooling and higher education) on education as a whole, thereby maintaining the marginalisation of informal learning. On this particular point, writings such as Blake *et al.* (1998), which on other matters are innovative and challenging, turn out to be very conservative.

A second reason is that so much of this writing adopts a defensive stance. Typically, writers on education use postmodernism to analyse distortions to education that they perceive to come from exercise of power over education by forces that they believe should stay away from education (such as economic

rationalist governments, employers, the mass media, and the like). Drawing on Lyotard, performativity and efficiency are identified as prime threats to education to be resisted at all costs.

We have our own worries about performativity and efficiency (as is evident, for instance, from our discussions of competence in chapter 3 and of technical rationality in chapter 7). But we fear that many educational opponents of performativity and efficiency are unquestioning adherents of the traditional hierarchies that privilege theoretical knowledge over practical knowledge, and formal learning of all kinds over informal learning. Thus their preferred postmodern educational world has no place for the practice-based informal learning from work which is the main focus of this book. This is evident from the typical scenario proposed as the remedy for the current emphasis on performativity and efficiency (e.g. Blake *et al.* 1998). Despite their suspicion of grand narratives, their rejection of foundations and their decentering of identity, what they are recommending reads very much like a return to liberal education and the traditional curriculum of the supposed golden age before governments and employers started interfering with education. Admittedly they want this traditional curriculum to be delivered in a more vibrant, sceptical and creatively reflexive way. But from our perspective, this remains an extremely backwards looking and conservative proposal. It focuses on the development of individual cognitive capacities, thereby retaining the conception of the learner as an aloof Cartesian spectator. It overlooks the relational character of learning that we have argued is a crucial feature that was largely suppressed by the standard paradigm of learning. Rather than responding creatively to the postmodern spotlight on the power dimensions of knowledge, such proposals commend a return to the dogmatic slumber engendered by the traditional knowledge-power axis of the educational establishment.

Earlier, change, crisis, difference, diversity, and fragmentation of identity were highlighted as important aspects of the contextuality of informal learning from work. Clearly, the connectedness of culture and society, of knowledge and power, provide further significant dimensions to this contextuality.

8.8 The overcoming of dualisms – organic rather than binary logic

Postmodernism has as a major theme the rejection of all claims to compartmentalise human thought and endeavour into independent categories. Pointing to what it sees as the slippage and non-transparency of language, postmodernism is concerned that binary polarities conceal as much as they reveal. In addition to the dualisms already criticised in this book, another example is the rejection of the modernist separation of the ‘three spheres of cultural value’ – the scientific and technical, the ethical and legal, and the aesthetic and expressive (Blake 1996).

As has been noted in previous chapters, the standard paradigm of learning rests on the vocational education/general education dualism and the theory/

practice account of work performance, thereby leading to the downgrading of vocational education and, even more so, of practice-based informal learning from work. However, the emerging paradigm of learning, which we support, overcomes the dualism and supports a different account of work performance.

Likewise, influenced by thinkers such as Dewey, the emerging paradigm of learning seeks to overcome dualisms in general. It has a holistic, integrative emphasis that aims to avoid other dualisms common in educational writing such as mind/body, thought/action, pure/applied, education/training, intrinsic/instrumental, internal/external, learner/world, knowing that/knowing how, and process/product. Our account of judgement, which is the focus of the next chapter, argues that judgements can include both poles of all of these supposed dualisms. Previous chapters have provided examples of this strategy.

For example, the process/product dualism was shown in section 7.9.2 to dissolve when action is recognised as an important concomitant of learning. Similarly, in section 3.9 the concept of ‘anticipative action’ and the accompanying notion of ‘feedforwardness’ were presented to account for aspects of the intentional action that characterises practice. It was argued that such actions can ‘feedforward’ because they invite the possibility that their purposes may be changed in the act of their achievement. In other words, there is no means/ends dualism here as the two interact with one another. By contrast, the Blake *et al.* (1998) postmodern attack on performativity and efficiency actually relies on the means/ends dualism. This starkly illustrates their perhaps unwitting retention of the standard paradigm of learning and its accompanying dualisms. Once again, it appears that an important postmodern theme fits very well with the emerging paradigm of learning.

8.9 A major focus on the power of discourse

Of the seven postmodern trends, this last one is the one that potentially provides the most serious clash with our developing account of practice-based informal learning from work. Let us begin with a consideration of the role of language in postmodernism. Here are two quotations from Robin Usher’s work:

Language is neither a mirror of reality nor merely a tool for understanding it but constitutes the experience of reality.

(Usher 1989 p. 29)

[L]anguage enters the picture. As a signifying system independent of individuals it provides meanings through which experience is interpreted. Language regulates and forms experience rather than simply being a device for naming it which is how humanistic discourse sees it’.

(Usher 1992 p. 208)

To understand Usher’s position on language we would need to read further

than the above two quotations, since taken alone they are highly ambiguous between at least three very different positions, all of which can be found in writings on postmodernism:

- 1 All is language (naive discursivism).
- 2 All that we can know or experience is language.
- 3 All that we can know or experience is *via* language, i.e. we can never be sure of the accuracy of our knowledge and experience of the world which is inevitably through the intermediary of language.

While some recent postmodernist writers appear to be proponents of one or other of the first two of the above options, a careful reading of Usher's work shows him to be committed to the third option. Postmodernists typically focus on the role of language in shaping knowing and experiencing, but there is significant disagreement about the preferred account of this.

To this thesis on the role of language in knowing and experiencing, we can add the further postmodern claim that meanings are determined from inside of language, rather than from outside of it. Postmodernism denies any meaning relations, such as representation, between language and non-linguistic realities. How are meanings constructed from within language? This brings us to the notion of discourse:

A discourse is a collection of statements (involving knowledge and validity claims) generated at a variety of times and places, in both speech and writing, and which hangs together according to certain principles as a unitary collection of statements.

(Blake *et al.* 1998 p. 14)

There are multiple discourses (e.g. scientific discourse, economic discourse) each with their own epistemologies and ontologies. So discourses as constructors of meaning are powerful. But they are even more powerful since they are 'constitutive of the subject or self' (Blake *et al.* 1998 p. 18). Faigley (1992 p. 9) expresses it as 'language creates consciousness rather than consciousness creates language', the latter being the modernist view. As Mackenzie points out, Foucault is the main progenitor of the claim that 'the self is constituted in and by public discourse', adding that on some readings, 'the self is no more than a node in a linguistic network' (1998 p. 147). Our worry here is that this disappearance of the subject into language leaves no room for agency. We see agency as a central aspect of practice-based informal learning and of the practical judgements that we argue are the fruit of such learning.

There seem to be two competing interpretations here:

- 1 Discourse *produces* everything including experience and what it is an experience of. This interpretation is interesting and novel, but also implausible. It looks like a form of idealism in which discourse replaces the absolute.

- 2 Discourse *influences* everything including experience and what it is an experience of. This interpretation is less interesting because it is no longer saying anything particularly novel.

The difference between these two competing interpretations is graphically illustrated by Mackenzie.

In the same way that the self is constituted by discourse, the motorist, with all the rights, responsibilities, possibilities, alternatives, routes which may be taken, and parking opportunities which go along with being a motorist, is constituted by the traffic code and the layout of streets and traffic signs and signals. But the journeys made by people, even if all fully in accordance with the traffic code (and so in a sense determined by it), cannot be explained merely by reference to the code and the streets. The traffic code determines that I should give way at roundabouts wherever I am going, but not whether I am on my way to the library or sneaking off to the beach. To suppose that a person makes decisions in a vacuum free of any constraint or context would be naive; but it is hardly less naive to suppose that such structures make our decisions for us.

(Mackenzie 1998 p. 147)

In strong versions of postmodernism, discourses construct subjects as well as the meanings of the language that they employ. It follows that, according to strong postmodernism, practice-based informal learning from work is an essentially discursive activity. The same is so for post-structuralism according to Norris, 'post-structuralism ... contrives to block the appeal to any kind of real-world knowledge or experience. For everything is ultimately constructed in discourse'. (Norris 1993 p. 25). The denial that discourse needs to connect to the world potentially represents a bigger marginalisation of practice and vocational education than their peripheral place in traditional educational thought.

However, there is available a second theory of experience which rejects some of these assumptions and conclusions of postmodernist theory. In attacking the work of Rorty, who subscribes to the postmodernist theory just outlined, Thayer-Bacon (1997) points to the different starting point of this second theory:

If Rorty is correct, this means that experience is not directly accessible to us, our language acts as a filter, sifting and sorting through our experiences and helping us to name and give meaning to what we experience. Those experiences we do not have a language for, fall through our filter and are lost as experiences. (p. 243)

But, Thayer-Bacon responds:

Language affects how we view the world, and how we make sense of the experiences we have. But it is also true that much of what we experience

remains unnamed, and cannot be reduced to its articulated meanings. I urge people to be receptive and attentive to the inarticulate too, not just what is named.

(p. 244)

She goes on to commend Dewey's view of experience. According to Dewey:

The nature of experience can be understood only by noting that it includes an active and a passive element peculiarly combined. On the active hand, experience is *trying* – a meaning which is made explicit in the connected term experiment. On the passive, it is *undergoing*. When we experience something ... [w]e do something to the thing and then it does something to us in return.... The connection of these two phases of experience measures the fruitfulness or value of the experience....[which] is primarily an active-passive affair; it is not primarily cognitive.

(Dewey 1916 pp. 146–7)

Thus, experience for Dewey is simply what occurs when humans carry out transactions with their environment, an acting and being acted upon, a doing and being done to. According to Dewey human thought (language) is something that has grown out of and been shaped by experience. He thinks of it as a tool that has evolved as humans have employed it and developed it to make sense of their experience and to shape subsequent experiences. Thus Dewey agrees with postmodernists that language is inherently contextual. In a very significant way, he thinks that it records human experience. But whereas postmodernists claim that language is *sufficient* for experience – that is, language constitutes experience – Dewey argues that language is merely *necessary* for experience – that is language plus something else constitutes experience. This 'something else' is the acting and being acted upon, the doing and being done to.

The result of this is the Deweyan self that is the evolving product of 'social-self-creation' (Garrison 1998b p. 113). This malleable 'self-in-process' is somewhat more robust than the ineliminably fractured self of some postmodernists. Indeed we agree with Dewey:

The self which is formed through action which is faithful to relations with others will be a fuller and broader self than one which is cultivated in isolation.

(Dewey, quoted in Shusterman 1997 p. 96)

Dewey attacked various forms of positivism for assuming that our primary relation to reality is knowledge, a view he labelled 'intellectualism'. The error of 'intellectualism' is its assumption of a split between the mind and the world, thereby creating a 'spectator' view of knowledge'. However, for Dewey, positivism of various sorts is not the only form of 'intellectualism':

The only difference between its empiricist and rationalist (or idealist) varieties is whether the world or the 'mind' makes the larger contribution to knowledge.

(Garrison 1998a p. 66)

Those strands of postmodern thought that operate with the basic assumption that language constitutes experience are a new form of what Dewey called 'intellectualism'. What has changed is that language or discourse replaces mind as the 'what' that stands aloof from the passing parade. By having linguistic practice fully determine experience, this type of postmodernism provides a latter day version of the theory/practice account of work performance that earlier chapters have shown has bedevilled understanding of vocational education and training. In its traditional form, the theory/practice account was responsible for the evident contempt for vocational education and training that has marked much of the history of educational thought. According to this view, work practice is to be understood as the application of theory to solve the problems that characterise the particular given work situation. To the extent that such theory is general, it comes from the traditional disciplines which are at the heart of education. To the extent that such theory is particular to the work situation, it is of no interest to educators. Hence, so the reasoning has gone, vocational education and training adds nothing to educational thought and can be safely ignored. The parallel for the new form of intellectualism is that work practice is to be understood as language and discourse practices.

As we have argued in this book, the recent interest in practice-based informal learning from work has been an indicator that theory/practice understandings of vocational education and training are at last collapsing. The problem, as we see it, is that some versions of postmodernism threaten to reinstate the theory/practice account in a new guise. If experience is really constituted by language (or writing, text, discourse), then the latter is the means by which informal learning from work is to be understood. The 'language constitutes experience' approach to understanding informal learning from work certainly has significant support (e.g. Usher 1992, Usher 1997, Usher, Bryant and Johnson 1997, Garrick and Solomon 1997). The traditional theory/practice account supported the assumption that happenings in the workplace were not worth investigation by educational researchers. The postmodern version of this account will keep its adherents in their studies since, on this view, the main prerequisite for understanding workplace learning is a knowledge of relevant texts. In Deweyan terms, what is ignored is the acting and being acted upon, the doing and being done to, which are the central (and non-linguistic) components of human experience.

Perhaps another way to probe the differences between these two positions is to consider what they say about language and the world. Both postmodernists and Dewey are enthusiastic about overcoming dualisms. One such dualism is language/world. A Deweyan view is that this is a false dualism since language is a part of the world, but not all of it. That is, language is not something apart from the world, but is a part of what makes up the world. But language does not

exhaust what makes up the world. Many postmodernists agree with this (e.g. Usher seems to, though he thinks experience is wholly discursive). However, some postmodernists take the dissolution of the language/world dualism further by reducing the world to language. In doing so they depart from the supposed postmodernist concern to reconcile dualisms; for instance, Burbules' account of the interplay of sameness and difference was discussed above. Rather than one being reduced to the other, each needs the other. Likewise, despite the post-modern emphasis on particularity, it seems to be the common view (such as in Usher's work) that the universal and the particular coexist rather than the particular subsuming the universal.

So more extreme postmodernist claims that 'all is discourse, or text, or language' are very debatable. To take Mackenzie's earlier graphic story a step further, to suggest to road accident victims that their injuries are purely discursive seems like a rather thin account of what has happened to them. They are embodied humans who have suffered the traumatic consequences of sudden and sharp contact with their physical surroundings. This has more to do with their embodied doing and being done to than their languaging capacity. To view humans as mere languaging beings seems as introverted and distorted as viewing them as disembodied Cartesian minds. It stems from an overemphasis on the supposed power of language. Discursive practices as 'unitary collections of statements involving knowledge and validity claims' (cf. Blake *et al.* 1998 earlier in this section) are simply insufficient to do the work of Dewey's doing and being done to, which is not primarily cognitive nor linguistic. Likewise, the agency involved in work practice, and in doing and being done to in general, seems to be lost when the subject is reduced to a mere node in a linguistic network. As we will argue in the next chapter, it is precisely because judgements denote (following Dewey) that agency is possible, thereby changing both the world and the judger, who is part of that world.

8.10 Conclusion

This chapter has explained our claim that we are 'strategic postmodernists'. On a range of issues to do with practice-based informal learning from work, post-modernism adds significantly to our understanding. The various dimensions of the contextuality of practice-based informal learning are illuminated by post-modernism's concern with change and crisis, with difference, diversity, and fragmentation of identity, with the particular and the local, and with the political and social dimensions of knowledge. As well, its loss of confidence in existing narratives and institutions accords with the signs of collapse in the front-end model and all that that entails. Likewise postmodernism's focus on overcoming dualisms sits well with our characterisation of practice-based informal learning as organic.

However, we also had some reservations about existing literature on postmodernism and education. Despite the close connections between knowledge and power being universally recognised as a main theme of postmodernism, we find

there is little appetite for challenging received understandings of knowledge and the educational power structures that grew up from those understandings. Rather, we find postmodernism being enlisted to repel recent changes to education with a view to returning it to a golden past. Yet it is just such a radical questioning of received notions of knowledge that we are urging in this book. The privileging of formal learning to the detriment of informal learning hinges, we have claimed, on supposedly objective understandings of knowledge that support traditional formal education structures that are taken for granted.

We have also signalled some disagreements within postmodern thought on the important matter of agency, which links to the activity- and experience-based features of practice-based informal learning. In our view, some postmodernists exaggerate the power of discourse, in the process losing both the subject and agency. Our position is that both are crucial for an understanding of practice-based informal learning from work.

A final question for this chapter might be: Is this book presenting a grand narrative on practice-based informal learning from work? Our reply is that though we are offering an account of workplace learning, we are not putting forward a grand narrative. This is so because we are not telling people what the good is – rather we are telling them how to make better judgements about their version of the good. Readers will no doubt judge this response for themselves.

9 Know how and judgement in postmodernity

The main argument of preceding chapters has been that traditional educational thought and practice, shaped by a set of enduring dualisms and the ‘front-end’ model of vocational preparation, have necessarily paid scant attention to practice, and the learning that accompanies it. In order to correct this deficiency, we have pointed to an emerging paradigm of learning based on dissolution of dualisms and a ‘contiguous’ model of vocational preparation. In this alternative model of vocational preparation learning and work are intertwined in various formal and informal admixtures. It is the main task of this final chapter to clarify this ‘contiguous’ model by showing how the notion of judgement is at the heart of it. This will bring coherence to the rough sketch of the model that was implied in the description of general features of the emerging paradigm of learning.

The strength that the notion of judgement supplies to the ‘contiguous’ model will be shown by considering how it illuminates each of the key features of practice-based informal learning from work outlined at the end of chapter 6. These in effect constitute key criteria for judgement. However, before we do that, a prominent alternative to judgement will be considered and shown to have major limitations. As well, the vexed notion of context will be examined in some detail, an analysis that is appropriate here, given the large number of postmodern themes that converged on this notion.

9.1 Limitations of know how for theorising practice

Earlier, in section 1.3, know how was characterised as ‘a type of knowing what to do in practice’ that is evident from peoples’ ‘various intentional actions’. Know how appears to be a seamless type of learning resulting from real workplace experiences. In advancing these claims we are thereby recognising know how as a real phenomenon, though one that we believe is not well understood. This contrasts with the reductive tendencies of theory/practice accounts where know how is not thought of as something that needs explaining. However, while it is one thing to recognise know how as a real phenomenon that needs its own explanation, in this case providing a satisfying explanation has proved to be quite another thing. The literature dealing with know how is, we

conclude, disappointingly non-explanatory. To illustrate this, we will consider the contributions of some well-known authors to our understanding of know how.

Aristotle Aristotle sharply distinguished between theoretical and practical reasoning. Theoretical reasoning (*theoria*) concerns knowledge that is certain (*episteme*), i.e. knowledge of what is necessary and eternal. Practical reasoning or wisdom (*phronesis*) is concerned with the contingent world of action (*praxis*). There is also another type of contingent knowledge that is concerned with production: skill or craft knowledge (*techné*) that deals with the making or creating of things (*poiesis*). Aristotle argues that *poiesis* has an end beyond itself (the product of the activity), while *phronesis* is done for its own sake. Aristotle's identification of *phronesis* or practical wisdom as a distinct type of reasoning seems to be an early version of what we have called 'know how', i.e. 'knowing what to do in practice'. However, as soon as we look to Aristotle for further understanding of *phronesis*, we run up against the problem of a diversity of interpretations.

According to Noel (1999), if *phronesis* is thought of as responding to the question 'What should I do in this situation?', three main interpretations are evident in the literature. The first focuses on acting rationally in the situation. The second interpretation is concerned to understand the features of the particular situation and respond appropriately, putting the focus on perception and insight. The third interpretation focuses on the ethical dimensions of the situation whereby the aim is to respond to the situation in a morally correct way. While in practice there is likely to be some overlap between these three interpretations, as Noel notes, we think that the existence of the three interpretations points to the tendency to simplify know how in order to come to grips with it. Undoubtedly all three interpretations represent important aspects of Aristotle's conception. Our description of know how as 'seamless' reflects our recognition of this complexity. We liken practice-based informal learning from work to the development of *phronesis* or practical wisdom. Later in this chapter we argue that the notion of a developing capacity to make the right judgements in the workplace adequately captures the seamless, holistic character of this know how.

So, while we find Aristotle's notion of *phronesis* very helpful, we see a need to go beyond it. In this we are in disagreement with authors who seem to think that Aristotelian *phronesis* will be adequate for the job, if only we can find the correct interpretation of it (e.g. W. Carr 1987, Cervero 1992, Dunne 1993). However, as Mackenzie (1991) and D. Carr (1995) have shown, there are severe problems in trying to find a final coherent answer to these issues in Aristotle. At best Aristotle is a starting point for moving on further (Garrison 1999).

Ryle Ryle's famous distinction between 'knowing how' and 'knowing that' (Ryle 1949) was discussed briefly in section 7.6.3. The strength of Ryle's theory was its insistence on the priority and independence of 'knowing how' in relation to 'knowing that'. Thus, for Ryle, the principles of cooking are, logically speaking, a distillation from the practice of those who know how to cook, rather than

something derived from the various relevant sciences. So, concluded Ryle, knowing how to do things – being able to perform intelligently – is logically independent of any interior theorising. Ironically, despite Ryle's clear intentions otherwise, we found that the lasting effect of his work appears to have been to provide a vocabulary which has merely helped to consolidate further in discourse and thought the traditionally assumed theory/practice account of work performance. In other words, Ryle's 'knowing how' has been regarded as theoretically uninteresting while at the same time his terminology has been widely adopted.

As we also pointed out in chapter 7, Edel (1973, pp. 237–43) has shown that the 'knowing how' vs. 'knowing that' distinction applies only to a very restricted range of individualistic activities that include the ones mentioned by Ryle. In contrast, complex work situations of the kind that require teamwork involving many highly-skilled workers using sophisticated technology are a prime example of the kind of activity that eludes classification as Rylean 'knowing how'. Thus the Rylean categories are not applicable to practice as carried on in the many contemporary workplaces that are not based on individualism. Once again, as with Aristotle, Ryle's views by themselves do not provide a satisfying contemporary understanding of know how.

Oakeshott Like Aristotle, Oakeshott distinguished between technical knowledge and practical knowledge. However, he added his own particular flavour to the distinction. According to Oakeshott, technical knowledge is reflective and can be formulated in rules.

[It] can be learned from a book; it can be learned from a correspondence course. Moreover, much of it can be learned by heart, repeated by rote, and applied mechanically.... Technical knowledge, in short, can be taught and learned in the simplest meaning of these words.

(Oakeshott 1962 p. 8)

For Oakeshott, practical knowledge is very different:

practical knowledge can neither be taught nor learned, but only imparted and acquired. It exists only in practice, and the only way to acquire it is by apprenticeship to a master – not because the master can teach it (he cannot), but because it can be acquired only by continuous contact with one who is perpetually practising it.

(pp. 9–10)

So Oakeshott accords know how (practical knowledge) a seamlessness and an intangibility not only by denying that it can be formulated, but even more so by dubbing it as unteachable. We can question this latter point. It should follow from Oakeshott's position that the best practitioners are automatically the best masters for apprentices to follow; but experience shows us that this is not so. It is hard to see in this anything other than that some masters are better at guiding

the development of their apprentices than others. That is, the learning of apprentices is influenced by the quality of the teaching that they experience. Something more direct seems to be happening than the osmosis favoured by Oakeshott.

Oakeshott offers an interesting diagnosis of the low regard for practical knowledge as against technical knowledge. The blame lies with rationalism, since '[r]ationalism is the assertion that what I have called practical knowledge is not knowledge at all' (p. 11).

Oakeshott puts this down to rationalism's preoccupation with certainty stemming from Descartes. This means that for the rationalist, 'all genuine knowledge is technical knowledge' (p. 20). This is, of course, a version of the reductionist theory/practice position criticised earlier in this book. As was the case with Aristotle and Ryle, Oakeshott's views by themselves do not provide a satisfying understanding of know how. The sure indicator of this is the purely negative characterisation of practical knowledge that Oakeshott offers: that it is unformulable, unteachable, and unlearnable.

Schön Schön's rejection of technical rationality and its assumptions has been a significant theme in this book. We saw that Schön's proposed alternative epistemology of professional practice centred on the reflective practitioner who exhibits knowing-in-action and reflecting-in-action. According to Schön, knowing-in-action is underpinned by reflecting-in-action or reflecting-in-practice. This spontaneous reflecting is variously characterised by Schön as involving practitioners in noticing, seeing or feeling features of their actions and learning from this by consciously or unconsciously altering their practice for the better. As has been argued in chapter 5, Schön shows the continuing influence of Descartes by focusing too much on the rational, cognitive aspects of practice. It needs to be remembered always that practice is an embodied phenomenon. Schön's cognitive bias is evident in his tendency to describe practice as thinking or reflection followed by application of the thinking or reflection. (This tendency is also a feature of Lipman 1991.) Part of what we have been calling the seamlessness, or organic character, of practice or know how is its resistance to being isolated as a purely cognitive phenomenon. Oakeshott was reflecting this in his negative characterisation of practice. More recently, writers influenced by Wittgenstein have drawn attention to practice as a subject worthy of philosophical attention (Dunne 1993, Williams 1994). However, a satisfying understanding of practice or know how remains to be devised.

We can conclude from accounts of know how offered by these well known authorities in this field that know how, in itself, is a very limited concept for understanding the learning that results from an appropriate sequence of workplace practice. However, we do not want the reader to conclude from this that know how is a topic on which nothing useful can be said. What does seem to be fairly clear is that workplace learnt know how grows and develops with appropriately structured experience of practice. This, of course, challenges the front-end model of vocational preparation. We also think that know how has many

dimensions, in that it is very sensitive to context, an issue that we take up in the next section. We then offer our own theory centred on judgement rather than know how.

This section has demonstrated that know how is a widely used but very inconclusive term. In terms of Part I of this book, it can be viewed as an overlay of three components: know how in the micro-level of hot action, know how in the intermediate level where the action is cooler, and know how in the macro-level of strategic action. Hence our characterisation of know how as a type of knowing what to do in practice that is evident from peoples' various intentional actions. As also noted in Part I, this complex structure of know how features key characteristics such as balance, tact, compromise and creativity/making/productivity. Our strategy in this book is to provide an account of practice that goes beyond the inconclusive notion of know how to the more satisfactory idea of workplace judgement. However, as this book has shown, there are many prior prejudices about the term judgement which first need to be discarded. We proceed with our account of practice as the exercise of judgement by first focusing on the crucial importance of context to judgement.

9.2 The centrality of context to practice-based informal learning from work

We want to examine more closely the various main dimensions of the contextuality of practice situations in which informal learning from work occurs, i.e. the key situations in which workers/practitioners exercise judgement. As we indicated in chapter 8, our position on contextuality is largely what makes us the kind of postmodernists we are. Amongst the postmodern trends that we instanced there as being significant for understanding practice-based informal learning from work, some are particularly relevant for its contextuality. These include:

- pervasive change and crisis
- recognition of difference and diversity
- a focus on the particular and the local
- recognition of the political and social dimensions of knowledge.

Thus, we will want an account of contextuality that incorporates these trends. This account will reflect the complex ways in which judgements are context specific. As well, this account will need to prepare the way for our theory of workplace judgements, a theory that seeks to provide a more satisfying alternative to the inconclusive know how theories rejected in the previous section.

As we see it, there are at least four dimensions to contextuality. Together they account for the complex influences of context on practice-based informal learning from work, as well as on the increasingly sophisticated judgements that that learning makes possible. The four dimensions of contextuality that we wish to emphasise are:

The specific combination of features that characterise any workplace situation at a given time. While it is likely that none of the features is in itself totally new, the particular combination of features is often rare or even unique in the practitioner's experience. This dimension of workplace contextuality is one that would apply even if the other points about contextuality immediately below did not. That is, it would apply in a world of stable individuals in stable workplace situations.

The changeability over time that characterises any workplace situation. Not only does every workplace situation have its own specific features, but situations themselves are apt to change more or less rapidly. That is, some of the specific features of workplace situations are likely to alter, including the humans that are part of the situation. Contexts exhibit unique combinations of features, and these combinations are typically not stable. The world is one in which both individuals and their workplace situations are apt to change.

The social forces that shape perceptions of and responses to workplace situations. Not only do individuals respond to and change features of situations, but the influences by which they do this are strongly social and communal. That is, the influences that individuals bring from other situations and contexts are part of the workplace context in which judgements are made and informal learning occurs. Thus contextuality is partly social. The cultural formation of individuals transmits these social and communal influences. This contrasts sharply with the Cartesian individualism of traditional educational thought.

The integration of the personal characteristics that together constitute humans' responses to workplace situations. The judgement situations that we claim are the locus of practice-based informal learning from work are integrative. By that we mean primarily that they seamlessly bring together human reasoning, will and emotion. This means that cognitive, conative, and emotive capacities of humans are all typically involved in workplace practical judgements. That is, in the terminology introduced in earlier chapters, workplace practical judgements are organic in that they involve the whole person.

Each of these four dimensions of contextuality is now considered in further detail.

9.2.1 The specific combination of features that characterise any workplace situation at a given time

Even in jobs that require workers to deal with a relatively narrow range of contextual features, there is likely to be significant variation between work sites. This will require a worker in such a job who changes employers to adjust his or her performance to the new situation. An illustration would be the hairdressing chain discussed in section 6.6.2 with its distinctive approach aimed at distinguishing itself from business rivals. There are other jobs that require workers to deal with a much

wider range of contextual features, so that even though the occurrence of entirely new features may be uncommon, the particular combinations of features met on a daily basis are often rare or even unique in the practitioner's experience. This occurs for a significant number of the cases handled by the immigration lawyers discussed in section 6.6.1. The same applies to some of the situations that arise in Pleasantville aged care facility (discussed in section 3.5). For workers to be successful in these sorts of jobs, this aspect of contextuality requires an ongoing capacity to learn from experience. The range and complexity of features that workers have to deal with is likely to be increased even further in the growing number of workplaces that view themselves as knowledge creation sites. In turn, this will require a yet more sophisticated capacity to learn from experience of practice.

As suggested earlier, this practice-based informal learning from work is by its nature highly contextualised. It is thereby significantly particular, local and contingent. By contrast, education has focused traditionally on the universal, the general and the necessary; principles with these characteristics are preferred as subject content. Thinking based on these binary categories – such as particular vs. universal – leads to workplace learning and education remaining disparate phenomena. We overcome the binaries and thereby dissipate the disparity. So, for instance, universals as experienced are particularised: our judgements are always of particular cases which fall under various universal categories. Moreover, education as traditionally conceived is supposed to develop learners' capacity to make judgements (see, for example, Anderson 1980). But, as we will show shortly, traditional understandings of judgement fail to provide the materials for a satisfactory account of the making of right judgements in the workplace. It turns out that Dewey was a lone voice against traditional understandings of judgement. Instead he offered a theory of judgement which we find broadly consistent with our proposal outlined later in this chapter. In support of our claim that both particular and universal are important in such workplace judgements, we can point to Burke's (1994) demonstration that Dewey's organic logic centred on judgements involving particular, generic and universal components.

The significant contextuality of workplace competence has received some recognition in countries that have implemented national competency standards. It has been accepted that in some instances it was necessary to produce enterprise specific versions of industry competency standards. This contextuality of workplace competence may raise questions about the value of generic training programs in some cases, as was noted in section 6.7.2 in relation to the research of Sefton *et al.* (1995). Research evidence about the strong contextual sensitivity of generic skills was also discussed in chapter 6 (at 6.5). This served to undermine naïve expectations about transfer of such skills.

9.2.2 The changeability over time that characterise any workplace situation

The pressing reality of change has appeared already in this book as a major cause of the growing interest in the practice-based informal learning that occurs

from work activities. Talk about work and change can easily descend into trendy clichés; nevertheless, our research experiences with people in many and varied workplaces show that it is more than a cliché. While it is true that there are some very routine jobs where the nature of the work itself is largely untouched by change, such as selling newspapers or tickets for public transport, it is also the case that these are precisely the jobs where people are likely to be replaced by machines. On the other hand, there are plenty of contemporary workplace situations where the nature of the work itself is changing more or less rapidly. These changes incorporate not only the organisation of the work and the external legislative requirements to which it must conform, but also the roles and responsibilities of the workers. Thus the workers are being reshaped by changes in their work situation. For example, the building and construction industry in Australia has gone through an evolving process of workplace reform over the last decade (as discussed briefly in section 8.5). The previous rigid demarcation around trades and occupations has been displaced by multiskilled flexible teams and flatter management structures, accompanied by strongly enforced legislation on a range of issues including safety, waste management and the environment. The result has been work situations that exhibit their own unique combinations of features, combinations that are themselves in flux as construction proceeds. For example, in a recently completed Australian project to build a major freeway in two stages (the Lake George section between Canberra and Goulburn), the environmental requirements were tightened so much during the construction of the south-bound carriageway that the construction of its north-bound counterpart became a very different job. Not only is the nature of the work changing, but the workers report that they themselves have been greatly changed and continue to be changed by the new regime.

A world in which both individuals and their workplace situations are in constant change is, of course, familiar to readers of Dewey. As Dewey frequently reminded us, humans responding to situations not only bring about changes in the situations but are themselves changed in the process. Thus Deweyan judgemental situations typically change both the world and the human making the judgement. As Hickman aptly reminds us (section 7.9.1) Dewey had a novel view of what judgement accomplished. Rather than merely altering the mental states or attitudes of the judging subject, Dewey saw judgement as changing the existential conditions which gave rise to the inquiry. Thus, for Dewey, experience is 'primordially an active-passive concern and not primarily cognitive' (Dewey 1916 p. 147). If growth is one Deweyan outcome of the experience of changing one's environment, the other main one is continuity. For Dewey:

the principle of continuity of experience means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after.... Growth ... not only physically but intellectually and morally, is one exemplification of the principle of continuity.

(Dewey 1975 pp. 35–6)

As Garrison (1998a p. 67) puts it: ‘the measure of the value of an experience lies in the perception of relationships or continuities’. So learning is the consequence of us recognising continuity in our experience, continuity being the connections we make between our judgements and actions in the world and the consequences for us of those judgements and actions. We learn as we judge more or less effectively how to deal with our rapidly changing surroundings. These Deweyan ideas have strong connections with the notions of anticipative action and feedforwardness introduced in Part I. For example, initial trying might be based on perceived relationships or continuities with previous cases, but further perception of the progress of the trying refines understanding of the relationships or continuities leading to modified trying, and so on.

9.2.3 The social forces that shape perceptions of and responses to workplace situations

Alongside the specific features of changing situations that influence an individual’s reactions and responses are equally powerful but more covert cultural determinants: rules, rituals and conventions, for example. They are less tangible, which makes them elusive, and their elusiveness tends to mask their power. Cultural determinants by definition start right under our noses, with what we say and the way we say it; it is difficult to conceive of our daily beliefs, values and attitudes otherwise than through what we find familiar. Different occupations have their own cultures and sub-cultures that provide norms and values about how that occupation should be practised. These are overlain by norms and values specific to the enterprise or corporation, be it large or small, in which the occupation is practised. Once again, the hairdressing chain discussed in section 6.6.2 is a clear example. Within large multi-site enterprises various site-specific norms and values will no doubt be influential. In our experience, even lone practitioner professionals usually employ regular contact with like-situated peers as a means of enhancing and monitoring their professional formation. Thus, immigration lawyers typically engage in discussion of difficult cases with peers, thereby advancing practice-based informal learning to the mutual benefit of all concerned.

In sections 2.7 and 2.8, three examples were provided of organic learning at Humus Consolidated. In each case, socially located feelings and thinking were central, as well as the appropriate ways of doing things at Humus. Thus the perceptions of and responses to these three workplace situations were socially shaped. A further clear example of the influence of social forces on workplace practice is provided by the way some professions have reacted to the growing international public dissatisfaction with their performance (discussed in section 6.3.1) by adopting a different philosophy of professional formation. In these cases, professionals’ competence is underpinned by an emergent concept of cultural formation. These professionals are becoming more involved in locating their professional values and knowledge in broader social settings, instead of just inheriting, replicating and distributing a traditional professional heritage. This heritage necessarily exists, but is itself mediated by the individual’s reading of

the context of his or her practice, and, as we have seen, this is now more likely to include richer social purposes and understandings resulting from collaborative association amongst one's peers.

This process is deliberately and simultaneously to lay oneself open to cultural formation, and to participate in it. However, the extent of the cultural arena will be perceived variously. Some practitioners and their peers will concern themselves with a professional culture, within broad social and public values they acknowledge but wish to keep at arm's length. For example, legal and accountancy practices may be increasingly collaborative, but have no greater sense of broader purposes other than the amelioration of injustice, corruption and inefficiency. These are assuredly social virtues, but they do not require for their fulfilment an activist stance; they fit a professional framework shaped by an acceptance of the status quo. Education and nursing, by contrast, lend themselves to a wider arena of social involvement. The territory of practice comes contested to the individual practitioner when the field is entered. He or she has to set the professional boundaries, mainly because for these enabling professions, the definition of the pursuit of social virtues is more contentious. In this way, the 'enabling' professions lend themselves to broader activism, albeit in the new collaborative forms of association.

Thus the reading of contextual factors will be a universal feature of practical competence, but to move beyond that to a recognition of one's own profession's location (or 'situatedness') is to acknowledge a symbiotic formative process. What such a culturally-formed practice looks like will vary depending on the perception of the extent of the arena of social involvement, as has been briefly indicated. But wherever the practice is on a spectrum of such perceptions, the new practitioner will be adept at learning from and contributing to collaborative peer association. Thus, the new professional recognises and contributes to his or her construction as a professional. We may call this process 'cultural formation'. The social origins of this professionalism means that individual practice is more likely to overtly reflect a variety of influences, in which knowledge counts as essential, and on how reality is perceived by someone who is inevitably sharing a set of professional activities. So we may conclude that this new practitioner will own his or her workplace identity in a rich and substantial sense, because it will connect individual practice with social and cultural phenomena at several levels, and in manifold modes.

In workplaces more generally, examples of this kind of cultural formation abound, and remind us of the social nature of learning. They also deal centrally and holistically with the complexities and dynamics of values, both individual and social.

9.2.4 The integration of the personal characteristics that together constitute humans' responses to workplace situations

Dewey's view that experience is 'not primarily cognitive' draws attention to the

integrative character of the judgement situations that we claim are the locus of informal workplace learning. Human experiences and judgements seamlessly bring together reasoning, will, emotion and related attributes. This means that cognitive, conative, and emotive capacities of humans are all typically involved in workplace practical judgements. Many of these components of judgement were referred to in earlier chapters. Examples include 'higher order' cognitive/affective/social characteristics. All of these are integrated in the judgements discussed in this chapter.

The Cartesian assumptions that have been critiqued throughout this book encourage us to think of ourselves '*at times* essentially as minds furnished with powers of knowing, and *at other times* as agents whose will swings into action to effect certain outcomes' (O'Loughlin 1997 p. 30). As Dewey and others have urged, we need to reject firmly any such dualisms and to recognise the seamlessness of lived human experience.

So, workplace practical judgement requires character. One's judgements are bound up with the kind of person one is. Although we believe that there is an inherent Cartesian dualism lurking in Lipman's account of judgement, he provides an excellent characterisation of what we mean by the seamless integration of diverse personal attributes in judgements:

judgements, unlike skills, are minuscule versions of the persons who perform them. This is so in the sense that each and every judgement expresses the person who makes the judgement and at the same time appraises the situation or world about which the judgement is made. We are our judgements and they are us. This is why the strengthening of my judgement results in the growth and strengthening of myself as a person.

(Lipman 1991 p. 171)

So Aristotle's moral virtues are brought into practice at work. It seems that 'rightness' of judgement has as its key components intellectual and moral virtues in a context.

However, the moral virtues are far from exhausting the personal characteristics that contribute to the contextuality of workplace practice and learning. One intriguing, but often neglected, area that involves personal characteristics, perhaps in complex combinations, is creativity. At the heart of the best organic learning is creativity. This is a ready development of the famous double-loop learning, well established in management and organisational literature (see 2.4). Creative double-loop learning does not just ask, 'What if we try [something] this way?' but plays with possibilities hitherto untried: 'Let's see what this would be like'. In this section, then, we explore the prospects for creative thinking in organic learning.

Let us use the popular notion of an organisational 'vision' as a point of entry to this exploration. Managers, and all others in a corporate workplace, are increasingly subject to, and hopefully participants in, vision or mission statements. Perhaps a sceptic would regard these as creative wish-lists at least insofar

as they express mere hopes towards which strategies and policies are directed: something quite impractical. After all, someone might argue, what is practical at work is what works at work!

This is undoubtedly correct – we do want to achieve what works. Vision statements have at least the virtue of directing us to some idea of the purposefulness of practical daily work, even if the grandness of the vision itself eludes us. In fact, in practical daily work, an action is the right action if it ‘works’ – if it turns out to be practical. So let us push on with this assumption: that our purpose at work is to achieve what works. Creative thinking about organic learning at work will hinge on it.

In daily work life, the practicality of judgements, decisions and actions is defined by their rightness or appropriateness. This rightness can be called, after Aristotle, *phronesis* (practical wisdom). How does this practical wisdom-at-work help us enhance organic learning? For the beginning of an answer, consider how managers as leaders might see themselves.

At the height of the heady 1980s, Badaracco and Ellsworth published *Leadership and the Quest for Integrity* (1989), in which they argued for a triad of leadership philosophies: political, directive, and values-driven. But their main concern was that whatever amalgam of these is effective (we would read: is right), the over-riding concern is the corporate leader’s integrity. Consistency is the aim, integrity seeming to be the value, by definition, which glues consistency together.

In similar vein, Quinn, in the intriguingly titled *Beyond Rational Management* (1991), addressed competing values amidst the dynamics of managerial leadership, and concluded that:

Moving beyond rational management does not mean moving from the purposive to the holistic frame. It does not mean moving from Theory X to Theory Y or from a left-brain to a right-brain perspective. It does not mean in any way devaluing rational thinking.... [One must] move to a metalevel that allows one to see the interpenetration and the inseparability of the two polarities. This third step takes us to a transformational logic. It allows for simultaneous integration and differentiation.

(pp. 163–5)

These writers, targeting the corporate readership, espouse ‘integrity’ and ‘integration and differentiation’ as, in our terms, organic concepts in workplaces. This integrability assumes the wholeness of experiences at work which are potentially educative and from which workers (in this case, managers) inevitably learn. More prominently, Argyris – like many of those exploring adult learning processes such as his colleague Schön (1983, 1987) – has seized upon the educative significance of adults being assisted in making their own learning more explicit to them. Integrability comes in here, too. Double-loops, reflection-in-action, meta-cognition and all manner of strategies to provoke these have in common the aim of bringing to awareness the very act of awareness. This is

what is meant when we state that organic learning makes adult learning explicit. It is this unpacking of a sensitivity to one's own state of knowledge, in the workplace, which is driving the construction of a new sort of practitioner (though Argyris' focus is on managers) (see sections 2.9–2.12). Indeed, Argyris (1993) connects this explicit personal awareness with the broader picture when he states:

Leadership education that focuses on theories-in-use and reasoning processes is more easily integrable with such managerial disciplines as strategy, managerial economics, management accounting, and management information systems. This is because these disciplines are themselves theories of action intended to help managers achieve specific goals. Moreover, their effective use requires productive reasoning. Managerial disciplines, in principle, eschew defensive reasoning.

(p. 7)

It is right that leadership education be integrable, and it is rational, purposive action which is the principle of that integration. But it is not enough that practical wisdom (*phronesis*) shapes organic learning. We need to look within the 'doing' of what is judged right.

Our argument in this book is that, within *phronesis*, at the very basis of the judgement that some actions are the right (effective, appropriate) ways to go, is a central role for the creative performance of work through knowing how to continue to do the work. Chapter 2 (section 2.15) detailed this approach to creativity. Such creative judgements require combinations of personal characteristics such as balance, tact, compromise and patience. Such is the contextuality of workplace practice and learning that creative and unique combinations of these will be needed in different situations. It is true all of this can reasonably be expected of *phronesis*. What we seek, however, is an improvement on this analysis, whereby we can acknowledge that workplace learning is a phenomenon deep within practical 'doing' towards certain localised values. In short, can we find in the very exercise of practical wisdom an opportunity for organic learning? And, if so, can we then integrate it with practical wisdom? This then would generate the most cohesive organicism for workplace learning.

9.3 The judgement account of practice-based informal learning from work

As we stated at the beginning of Part II, we are trying to explain and understand *the sort of learning that occurs as people engage in broadly successful practice, learning that makes them better practitioners*. While we are not claiming that the notion of making judgements is all there is to practice, nor even that judgements are central to all practice, we do maintain that making judgements is a central holistic workplace activity that is the expression of practice-based informal learning from work. Thus, in describing such judgements and the factors that facilitate them, we are at the same time advancing a model for practice-based informal learning from work.

Six key features of practice-based informal learning from work were discussed in chapter 6. It was argued that these sharply distinguish practice-based informal learning from formal learning. Thus our judgement account of practice-based informal learning from work needs to closely reflect these features in order to be plausible. In the following we show how our account achieves this by considering six major features of practical judgement at work as follows:

- 1 Judgements are holistic
- 2 Judgements are contextual
- 3 Judgements denote
- 4 Judgements are defeasible
- 5 Judgements include problem identification
- 6 Judgements are socially shaped.

9.3.1 Judgements are holistic

In section 6.7.1 the holistic character of informal workplace learning was emphasised. Workplace practical judgement is holistic in several senses:

A Practical judgement at work integrates the personal characteristics that shape humans' responses to workplace situations

Practical judgements at work are not simply 'rational', but are highly integrative. Involving the full gamut of human attributes, they integrate the cognitive, the practical, the ethical, the moral, the attitudinal, the emotional, and the volitional. As well, since practical judgements at work usually involve changing the wider world in some way, as against merely changing mental and attitudinal states, the embodiment of the judger should not be overlooked. All of these components of practical judgements at work are seamlessly present in holistic performance. So the rightness of a judgement will rarely involve notions of truth and falsity alone. Rather intellectual, practical and moral virtues will all figure in considerations of rightness. This holism of practical judgements at work obviously dovetails with the holism of the emerging paradigm of learning.

B Significant practical judgements at work usually contain a holistic nest of intermediate judgements

Workplace practical judgements often involve a series of intermediate judgements prior to the final or culminating judgement. Dewey (1938 pp. 1124–5) calls these intermediate judgements 'adjustments'. For example, the final or culminating judgement might be a doctor's diagnosis of a patient's condition. In arriving at the diagnosis, many intermediate judgements will have been made, such as the significance of the patient's reports of symptoms, connections of this case to previous cases, and tests that needed to be carried out. The feedforwardness of anticipative action, involving a continuous dialectic of

changing goals and actions, is one example of a series of nested practical judgements. Chapter 3 (sections 3.3 and 3.4) discussed evidence for this.

It should be clear that holistic workplace practical judgements need not be independent of propositional or technical knowledge. Because mainstream education has focused on propositional knowledge at the expense of more contextual knowledge, such as that gained by informal workplace learning, some proponents of practical judgement have written as though there is no connection between the two (such as Smith 1997). This appears to be a mistake. For instance, the doctor arriving at a diagnosis might well make considerable use of technical knowledge – such things as the patient’s test results presuppose a great deal of such knowledge. Likewise doctors called on to justify their judgements in a legal context appeal to significant amounts of technical knowledge as underpinning and reinforcing their judgements.

9.3.2 Judgements are contextual

The strong contextuality of practice-based informal learning from work was stressed in sections 6.7.2 and 9.2. This contextuality had various dimensions. Thus, practical judgements at work are contextual in several senses:

A Practical judgements at work take account of the specific combination of features that characterise the workplace situation in which the judgements are made

While all practitioners no doubt make many routine judgements, they will also find themselves in situations in which the particular combination of features is rare or even unique in their experience. This will call for sound non-routine practical judgements that are highly context sensitive. To achieve this the practitioner will require qualities such as alertness, situational appreciation, and attentiveness to the details of the particular case. Above all, the practitioner will need to be a sound judge of what is routine and what is novel in some way.

B Practical judgements at work take account of the changeability over time that characterises the workplace situation in which the judgements are made

Because workplace situations are apt to change more or less rapidly, practitioners need to be flexible rather than dogmatic about their practical judgements. Workplace practical judgements need to be seen as provisional. Practitioners need to be prepared to change their judgements and to try something else in appropriate circumstances. This non-finality of judgements is consistent with the claim that not only are workplace situations in a state of flux, but so also are the humans that are part of these situations. So the judgers are altered in part by the judgements that they make. This flexibility in practical judgement fits well with the feedforwardness of anticipative action, involving a continuous dialectic of changing goals and actions.

Our everyday language, based on traditional dichotomies like theory/practice

and knowledge/skill, is limited in its capacity to characterise adequately such holistic contextual judgements.

9.3.3 Judgements denote

It was noted in section 6.7.3, as a characteristic of practice-based informal learning from work, that it is triggered by work activity and experience. Dewey's characterisation of experience that it 'is primarily an active-passive affair; it is not primarily cognitive' (1916 pp. 146–7) emphasises that the prime outcome of judgement is a change in the world rather than a change in the contents of a mind. This engagement of judgement with things other than the contents of minds – that is, with the wider world – is what we mean when we say that judgements denote. Thus, rather than being about contemplating the world, judgements denote precisely because they are about acting in the world and suffering, for better or worse, the consequences of that action.

This is why such judgement can only be learnt properly from the experience of real practice. While contemplation of practice in classrooms might help, in the end rich learning requires real practice. Hence the general principle that workplace practical judgement of all kinds is learnt by experience of practice. Authors who in various ways support this proposition include Aristotle, Oakeshott (1962), Schön (1983), Cervero (1992) and Smith (1997). Although experience may be necessary for the acquisition of practical judgement, it does not follow that all experience of practice is effective to achieve this end. This remains, of course, a matter for investigation.

The focus on action and effecting change of the emerging paradigm of learning sits comfortably with the activity- and experience-based emphases of this denoting feature of judgements.

9.3.4 Judgements are defeasible

In section 6.7.4 it was pointed out that informal learning is usually not measured for its own sake, but by the success or otherwise of the activities from which it arises, which have other concerns than learning such as relieving a crisis, satisfying a customer's needs, and meeting a deadline. The practical judgements at work that are made along the way are usually not final. If things are not working out they will be modified. They also need to be recognised as defeasible or fallible. We will not get it right every time. This is so because such judgements concern what is most satisfactory or most effective in a particular context, rather than what is true or false. Notions such as satisfactoriness or effectiveness are relative, so judgements about them are defeasible because further understanding or information might require a change of judgement. Once again the feedforwardness of anticipative action comes into the picture. Defeasibility also applies, of course, to so-called final or culminating judgements (such as the doctor's final diagnosis mentioned above). It also applies to practical reasoning in general, thereby providing a clear contrast with theoretical reasoning (Kenny 1989 p. 44).

The contextual sensitivity of practical judgements at work ensures that more understanding or more information are always distinct possibilities.

As we saw in section 9.3.3, judgements denote precisely because they are about acting in the world and suffering, for better or worse, the consequences of that action. As the possibility of ‘worse’ suggests, a judgement may turn to be one that would be made differently in similar circumstances next time. We judge and act in order to change the world in some way. Sometimes we follow this up with further changes in the changes that we originally made; at other times we remain with the original changes. In both cases this is done in response to further judgements about the effects on the world of our original changes. In this way, as we saw above, practical judgements at work denote, i.e. they have ‘direct existential import’ (Dewey 1938 p. 123).

While a lot of ink has been spilt in recent times about the supposed futility of connecting language to anything non-linguistic, Dewey would reject this way of posing the problem as a form of intellectualism. Rather than starting from abstract theorisation about the nature of language, Dewey takes the fundamental human situation of doing and being done by as his starting point. Judgements are central to this doing and being done by in that they make a difference to these basic existential conditions. We agree with this.

9.3.5 Judgements include problem identification

One of the less desirable artefacts of much formal education is that students are encouraged to view the world of practice as one in which there are ready-made problems with neat solutions. For instance, most of the problems that students are expected to solve in typical university undergraduate science classes are closed problems, with unique right answers. As well, all of the data needed to solve the problem are typically given in the problem statement or on a data sheet. The goal is also stated fairly explicitly and the problem can be solved by applying familiar rules or procedures. Practice in solving these types of closed problems is likely to engender in science students a view that there is a unique answer for every problem and that science is a body of knowledge which is to be memorised and reproduced in examinations. Completing such problems does little to enhance students’ critical thinking abilities. Nor does it prepare them for the realities of professional practice, where key problems are commonly open rather than closed, in that they have no unique solution, the data needed to solve the problem are not given, and it may be unclear what rules or procedures are applicable to the problem. On top of all this, very often the challenge is to first work out what the problem is. This control over the problems by teachers is a characteristic of formal learning situations. However, as argued in section 6.7.5, informal workplace learning differs in that it is activated by learners in interaction with a situation rather than by teachers/trainers. So a significant part of developing workplace practical judgement is learning to correctly identify and respond to problems as a relatively autonomous practitioner. This is informal workplace learning par excellence.

Thus, practical judgement at work has ‘as much to do with what problem needs to be solved as about how to solve it’ (Cervero 1992 p. 93). As Schön (1983) famously pointed out, it is typical of real life practice that ready-made problems do not simply present themselves to the practitioner. A major role of practitioners is to identify what the problems are in a given set of circumstances. Thus workplace practical judgement often starts with judgement about what the problem is. This is a complication that is simply ignored in theory/practice accounts of workplace practice.

9.3.6 Judgements are socially shaped

The collaborative and collegial nature of much practice-based informal learning from work was discussed in section 6.7.6 and reinforced throughout 9.2. Because practitioners are almost invariably part of a community of practice, the judgements that they make have inherently social and political dimensions. The norms and values that come from cultural formation as discussed above are thereby key factors in workplace judgements. As social and political norms and values evolve, very different workplace practical judgements are made. For example, drawing on examples used earlier in this book, various safety and environmental practices, that were once considered acceptable in building and construction, are now illegal. The social and political shaping of practice have been such major themes of the preceding discussion, that the inherently social and political dimensions of judgements at work probably need no more emphasis.

9.4 Why has the importance of judgement been misjudged in education?

If the notion of judgement is as educationally valuable as has been argued in this book, why has this not been widely recognised before now? A large part of the answer lies in the powerful influence of traditional philosophical assumptions on educational thought. The influence of Ancient Greece has already been apparent in this book in the shape of the academic vs vocational, theory vs practice, and rationality vs emotions and values dichotomies. The way that judgement traditionally has been perceived is a further aspect of the same influence. As well, an ambiguity should be noted between process and outcome in the ways the term ‘judgement’ has usually been employed. Traditionally, the emphasis has been on judgements as outcomes, with intellectual judgements being the main focus. These kinds of judgements have been viewed as true or false propositions, something very different from so-called practical judgements which were about what to do. Thus, the influential sway of the pervasive theory vs practice dichotomy is apparent.

Given the above trends, it is unsurprising that for much of the history of philosophy, judgements have been equated with propositions. This usage is still common in dictionaries of philosophy. For example, in the 1979 edition of the *Pan Dictionary of Philosophy*, the entry under ‘judgement’ is ‘see proposition’. The

entry under ‘proposition’ informs us that a proposition is ‘whatever can be asserted, denied, contended, maintained, assumed, supposed, implied, or presupposed’. The entry goes on to state that ‘the term “proposition” with its more impersonal and logical flavour has completely replaced the older less impersonal and more psychological “judgement”.’

Before the term ‘proposition’ replaced the term ‘judgement’, philosophers devised various classifications of judgements. A standard classification in traditional logic of judgements that involve a truth claim, and, hence, are either correct or erroneous, is:

- problematic (probable or improbable or possible)
- assertoric (true or false)
- apodeictic (necessary or impossible).

Judgement is, of course, at the centre of Kant’s philosophy. For Kant, the mind judging constructs the phenomenal world. Practical judgements and aesthetic judgements are also important components of the human faculty of judgement. Thus in Kant we have theoretical judgement (‘A is true’, ‘B is false’), practical judgement (‘A is good’, ‘B is evil’), and aesthetic judgement (‘A is beautiful’, ‘B is ugly’).

The modern replacement of ‘judgement’ by ‘proposition’ had the advantage of removing ambiguity since ‘judgement’ refers both to the mental act of asserting, affirming, or denying an assertible content, and to the assertible content itself. However, it also had the effect of suggesting that people making judgements is something of no interest to philosophy, but is something better left to the psychologists. For instance, a problem of the common understanding/will distinction in philosophy is that it leaves out judgement (Kenny 1989 pp. 78–9).

The influence of this on education has been two-fold. First, to the extent that judgement has warranted attention at all, theoretical rather than practical judgement has been the centre of attention. Second, by emphasising judgement as outcome, the significance of the process aspect of judgement has been diminished. The outcomes of judgements-as-process are propositions, and education has always concentrated on propositions rather than the process of arriving at them. On this kind of thinking, judgement is not a pressing issue for education. Hence, with the dominance of the academic tradition in education, judgement came to be seen in more and more intellectual terms. This is reflected, for instance, in the history of IQ tests with their original focus on intellectual judgement (Sternberg 1990).

While judgement has not been a major concern of educational thought in general, it has started to gain some attention recently. Lipman (1991) is somewhat unusual in according judgement a central place in his view of education. Lipman argues (1991 p. 159ff.) that while traditional approaches to education were suspicious of claims that school education should teach students to make effective judgements, in more recent times the case for so doing has become compelling. Lipman’s view stems from his work on teaching students how to

think. His position is, broadly speaking, that if inquiry is the process in which thinking is learnt, then the product of effective inquiry is judgement. According to Lipman, judgement is absolutely central to effective thinking. Hence his book spends a lot of time discussing the nature of judgement and specifying the characteristics of the various kinds of judgements. For Lipman, thinking 'is a process of finding or making connections and disjunctions' where connections and disjunctions are relationships. Such relationships are the objects of judgement. Thus '[t]o judge is to judge relationships, either by discovering relationships or inventing them' (Lipman 1991 p. 16).

Lipman identifies three orders of judgements: generic judgements, mediating judgements and culminating judgements. Generic judgements are the most abstract and include judgements of similarity, difference and identity. Less abstract are mediating judgements which include judgements of causation, value, fact, relevance and many others. Least abstract are culminating judgements which apply directly to life situations. These include ethical, social, scientific, technological, professional and aesthetic judgements. Lipman's view is that the first two orders of judgement underpin culminating judgements, something that he claims has not been widely recognised. Hence the reflective model of educational practice should cultivate the making of all three orders of judgements, since neglect of generic and mediating judgements commonly results in poor or mistaken culminating judgements. Lipman proposes an orderly progression in students' learning to make judgements beginning with generic judgements, then mediating judgements, through to culminating judgements, i.e. 'judgements applied directly to life situations' (Lipman 1991 p. 164). While Lipman deserves commendation for placing judgement at the centre of education, he still has a Cartesian tendency, noted earlier in this chapter, to describe practice as thinking or reflection followed by application of the thinking or reflection. We have argued for the seamlessness of judgement and its resistance to being isolated as a purely cognitive phenomenon.

Another source of recent attention to judgement in education has been the growing interest in so-called generic skills or competencies (for example, see section 4.11). These have served to draw attention to how judgements in daily life are not just theoretical or practical in the philosophers' sense, but often involve all of the cognitive, conative and affective domains. This is, of course, reminiscent of Dewey's theory of judgement.

9.5 Where to from here?

Based on our multi-factoral account of judgement and the emerging paradigm of learning, a contiguous model of vocational formation is suggested in which well-supported mixtures of formal and informal learning contribute to the development of productive, postmodern practitioners. We have sought to understand and explain the beginnings of such a model.

We end by wondering about the potential of anticipative action to extend our understanding of understanding itself.

At a more profound level of analysis, we may ask: how does workplace learning, especially training in the workplace (such as Just-in-Time training) help us understand ‘understanding’ itself? If anticipative action, as outlined in chapter 2, contributes to this, it is because it takes apart intentionality, and then approaches it in a new way.

First, it recognises that the concept of feedback mechanisms has limited value in analysing the concept of understanding. Even the model of a mechanism gets in the way of understanding ‘understanding’. As we indicated in section 2.15, feedback mechanisms report attempts (‘tryings’); by contrast, feedforwarding rehearses accomplishments. It is the reflexivity in actions between both of these which constitute practices, and which together account for both the routine and the contingent in human activity.

These are the seeds of a new approach to understanding. Instead of asking how the learning (through training, for example) is represented to the learner – ‘Has there been a change in the state of the learner?’ – the more profound question is: ‘What inferences can now be articulated by the learner?’.

Feedforwarding is a conceptually clumsy notion as it stands, but it endeavours to focus on the activity and creativity of intentionality by opening a space for this inferential understanding. We have argued in chapter 2 that practice is the rehearsal of accomplishments. Practitioners (and, we would argue, all learners who are encouraged to take their embodied action seriously), create and recreate their ‘practice worlds’, as Schön has famously stated. Understanding, on that basis, is an inferential phenomenon – it arises from the fluidity of rehearsals and accomplishments which constitute practice across routine and contingent situations.

Notice, however, that this inferential understanding is actually articulated (and not merely ‘capable of being articulated’). This is crucial. Whereas representational understanding tries to map itself in the identification of mentalistic states (such as ‘mechanisms’, ‘ideas’, ‘mental models’, ‘learning loops’, ‘pictures’, ‘images’, ‘maps’, ‘metaphors’), inferential understanding shows up in public, socially-located, justifications. These are more or less warranted assertions of how experience is proceeding: they are the ‘whyness’ of practice.

This understanding of ‘understanding’ requires not only one embodied practitioner but a whole community of them, because the practices are, at bedrock, assertoric practices. Judgements and justifications of how one proceeded, or intends to proceed, or (more commonly) finds oneself proceeding, are articulable in warranted ways depending on the values and norms of one’s community. The warrant for proceeding thus-and-so is embedded in the assertoric practices of which one is a member. We need not be too precious about this. There will be a range of these assertoric practices, all overlapping, from the community of a workplace, of a profession, of a citizenry, and even up to the general level of humanity itself. Boundary-crossing and multiple memberships of communities provide the assertoric matrices to our inferences. Right across this range, then, inferential understanding, and the assertoric practices in which they are embedded, are normative. The public, socially-located articulation of justifica-

tions reveals understanding. To engage in a series of reason-giving for one's anticipative actions invites other community members to join in – that is, to articulate warranted ways to go on – which co-constructs practice. Gains in, and blockages to, understanding are inferred from these practices.

In large measure, this analysis is Wittgensteinian (1963) in that it fits with his constructivist language-game metaphor for the meaningfulness of human actions. The metaphor reveals his insight that our rule-governed capacities are entirely due to our socio-cultural, not our private, reality. The significance of Wittgenstein for postmodernists, amongst others, and at least in this respect, continues to be deservedly high. But this not because of the metaphor of the language-game, which is a powerful heuristic device. Rather, it is because it represents Wittgenstein's insight into the relationship between language and the experienced world. His argument against the possibility of a private language – not the metaphor in itself – is central to that insight. The practice of assertion is ineluctably public, he argues, ruling out a private language, and therefore the cogency – in any interesting sense – of a private reality. This is a formidable assault on Cartesian dualism, because it locates individuals' sense of life's meaningfulness in the public domains of language and social experiences, resisting the traditional bifurcation of meanings into the privately privileged (mentalistic meanings) and the residual material category of the body.

Inferential understanding has many supporters in mainstream analytic philosophy. Mackenzie (2000), drawing upon Brandom (1994), details its rich and contemporary legacy in Western philosophy with special reference to Frege, Kant and Leibniz. We suspect Rorty and other Deweyans would fit well with this tradition.

What is especially noteworthy in this legacy, for some of us in education, is the significance of judgement, which, as Mackenzie (2000) reminds us, we can find in Kant:

The unquestioned assumption before Kant was that an explanation of linguistic meaning must begin with a theory of terms or concepts, both singular (e.g. 'Socrates') and general (e.g. 'human'). Their meaningfulness would be grasped independently of, and prior to, the meaningfulness of anything else. They are representations.

(p. 4)

Philosophers before Kant thought that, through that sort of theorisation, the combination of these linguistic atoms would produce assertions and then inferences, the truth of which was based on what was combined and how this was done. Mackenzie goes on:

For Kant, the fundamental unit of awareness or cognition is the judgement (assertion).

'Now the only use which the understanding can make of these concepts is to judge by means of them' (Kant 1781/7...). Since this was the only use,

it followed that ‘...we can reduce all acts of understanding to judgements...’...To understand something as a singular or general term presupposes its role in judgement.

(p. 4)

Again, consider Frege, as quoted by Mackenzie:

I start out from judgements and their contents, and not from concepts.... And so instead of putting a judgement together out of an individual as subject and an already previously formed concept as a predicate, we do the opposite and arrive at a concept by splitting up the content of a possible judgement.

(Frege in Mackenzie 2000 p. 4)

In all of this, the enemy is, and ought to be, any Cartesian assumptions that understanding is represented mentalistically, that is, divorced from embodiment. But it also unhelpful to regard understanding represented discursively (as only a linguistic phenomenon), or represented logocentrically (as only a syllogistic phenomenon).

We have argued throughout this book that any attempt to advance human learning should stay true to the ‘whole person’, and that working knowledge of various kinds can be shown to do this. Embodied actions are at the heart of inferential understanding, but as we have tried to show they do not tell the whole story. What is also required is an account of intentionality which is reflexive over means and ends, and value-laden (in the form and spirit of Aristotelian *phronesis*).

The point of all the above, and indeed our main suggestion for the way ahead, is to dislodge representational understanding (because it is one-dimensional and reductive of aspects of experience) as such, in favour of inferential understanding (because it admits of multi-dimensional and reflexive aspects of experience) (Beckett 2001b).

Inferential understanding gives primacy to human judgement, and its embeddedness in warranted assertoric practices. This seems a much more fruitful approach to understanding ‘understanding’, which, to reiterate, is inferred from anticipative actions (in, for example, workplaces). Just-in-Time Training is one specific way to winkle out this inferential understanding (see sections 2.14 and 2.15).

Attention to our interventions, that is, to specific learning processes such as Just-in-Time Training, is intended to substantiate (that is, give substance to) the outcomes: the socio-cultural construction of the citizen, the adult, the worker and the person is the end in view. Agency arises in this sort of contextuality. Of course what the substantive worth of these constructions amounts to will vary depending on the depth and breadth of the processes experienced, and upon the purposes (the ‘feedforwardness’) of the interventions. As Mackenzie states, inferential understanding is ‘normative all the way down’. In our view, judgements like this, too.

We close by affirming that individual identities, in these respects, will be unique. This is part of our Western intellectual and political tradition, which we regard as a strength, but individual identities will flow in large measure from the inferential understandings we gain from interventions by educators and trainers – amongst many others. These diverse socio-cultural identities will be normative – all the way up, as it were. Our book has shown how ineluctably and fruitfully daily life, particularly through work, can be the focus for the formation and re-formation of these identities.

What does all this mean for learning at work and across life? We have set out a conceptualisation of the creativity of human experiences in these respects – including how hot action can generate organic learning and a new regard for knowing how to act intelligently. The challenge we leave with traditional educators and trainers is this: how do you build this creativity into your purposes and practices? What is clear in this new century is that the old epistemology must move aside.

Bibliography

- Abu Duhou, I., Beckett, D., and Hampel, B. (1993) *Education and Training Facilities for Newly-Arrived Adult Immigrants*, Canberra: Australian Government Publishing Service.
- Altrichter, H., Posch P., and Somekh, B. (1993) *Teachers Investigate Their Work*, London and New York: Routledge.
- Anderson, J. (1980) *Education and Inquiry*, (Phillips, D.Z. ed), Oxford: Basil Blackwell.
- Arendt, H. (1958) *The Human Condition*, New York: Doubleday Anchor.
- Argyris, C. (1993) 'Education for Leading-Learning', *Organisational Dynamics*, 21, 3: 5–17.
- Argyris, C. and Schön, D. (1974) *Theory in Practice: Increasing professional effectiveness*, San Francisco: Jossey Bass.
- (1978) *Organisational Learning: A theory of action perspective*, London: Addison-Wesley.
- Aristotle (1941) *Basic Works*, (McKeon, ed), New York: Random House.
- Ashby, E. (1946) 'Universities in Australia' in his *Challenge to Education*, Sydney and London: Angus and Robertson.
- (1966) *Technology and the Academics*, London: Macmillan.
- Badaracco, J. and Ellsworth, R. (1989) *Leadership and the Quest for Integrity*, Boston: Harvard Business School Press.
- Bagnall, R. (1999) *Discovering Radical Contingency: Building a postmodern agenda in adult education*, New York: Peter Lang.
- Bauman, Z. (1997) 'Education: Under, for and in spite of postmodernity', in *Philosophy of Education Society of Great Britain: Papers of the 31st Annual Conference 1997*, Oxford, New College: Philosophy of Education Society of Great Britain.
- Beare, H. and Slaughter, R. (1993) *Education for the Twenty-First Century*, London: Routledge.
- Beckett, D. (1992) 'Straining training: the epistemology of workplace learning', *Studies in Continuing Education*, 14, 2: 130–42.
- (1994) 'Workplace learning: Managing cultural change', in F. Crowther, B. Caldwell, J. Chapman, G. Lakomski, D. Ogilvie (eds) *The Workplace in Education: Australian perspectives*, Sydney: Edward Arnold.
- (1995) 'Professional practice for educators: The getting of wisdom?', *Educational Philosophy and Theory*, 27, 2: 15–34.
- (1996) 'Critical judgement and professional practice', *Educational Theory*, 46, 2: 135–50.
- (1998) 'Disembodied learning: How flexible delivery shoots higher education in the foot: Well, sort of', *Electronic Journal of Sociology, www.sociology.org*, 3, 3:1–6.

- (1999) 'Past the Guru and Up the Garden Path: The new organic management learning', in D. Boud and J. Garrick (eds) *Understanding Learning at Work*, London: Routledge.
- (2000a) 'Eros and the virtual: Enframing working knowledge through technology', in C. Symes and J. McIntyre (eds) *Working Knowledge: The new vocationalism and higher education*, London: Open University Press.
- (2000b) 'Making Workplace Learning Explicit: An epistemology of practice for the whole person', *Westminster Studies in Education*, 23: 41–54.
- (2001a) 'Mainstreaming diversity in Australia's schools: Problematising the Neo-Liberal "Third Way"', *International Journal of Educational Research*, Special Issue: Multiculturalism 35: 269–80.
- (2001b) 'Hot Action at Work: Understanding "Understanding" Differently', In T. Fenwick (ed.) *New Understandings of Workplace Learning*, New Directions for Adult and Continuing Education Series, San Francisco: Jossey-Bass.
- Beckett, D. and Hager P. (2000) 'Making Judgments as the Basis for Workplace Learning: Towards an epistemology of practice', *International Journal of Lifelong Education*, 19, 4: 300–11.
- Beckett, D. and Morris, G. (2001) 'Ontological Performance: Bodies, identities and learning', *Studies in the Education of Adults*, vol. 33 No. 1, Leicester: National Institute of Adult Continuing Education (England and Wales).
- Belenky, M., Clinchy, B. and Goldberger, N. (1986) *Women's Ways of Knowing*, New York: Basic Books.
- Bellini, J. (1999) 'Emotions will rule in 2025: Futurist', *The Age*, Melbourne, Oct 13 (Business p. 1).
- Berge, Z. (1995) 'Facilitating computer conferencing: recommendations from the field', *Educational Technology*, Jan–Feb: 22–30.
- Berryman, S. (1993) 'Learning for the workplace', *Review of Research in Education*, 19: 343–404.
- Billett, S. (1998) 'Understanding workplace learning: Cognitive and sociocultural perspectives', in D. Boud (ed.) *Current Issues and New Agendas in Workplace Learning*, Adelaide, Australia: National Centre for Vocational Education Research.
- Blake, N. (1996) 'Between postmodernism and anti-modernism: The predicament of educational studies', *British Journal of Educational Studies*, 44, 1: 42–65.
- Blake, N., Smeyers, P., Smith, R., and Standish, P. (1998) *Thinking Again: Education after post-modernism*, Connecticut: Bergin and Garvey.
- Boud, D., Cohen R. and Walker D. (eds) (1993) *Using Experience for Learning*, Buckingham and Bristol: Society for Research into Higher Education and Open University Press.
- Boud, D. and Feletti, G. (eds) (1991) *The Challenge of Problem-Based Learning*, London: Kogan Page.
- Boud, D. and Garrick, J. (eds) (1999) *Understanding Learning at Work*, London: Routledge.
- Boud, D., Keogh R., and Walker D. (eds) (1985) *Reflection: Turning experience into learning*, London: Kogan Page.
- Boud, D. and Miller, N. (eds) (1996) *Working with Experience: Animating learning*, London: Routledge.
- Boud, D. and Solomon, N. (eds) (2001) *Work-Based Learning: A new higher education?*, Buckingham: Society for Research into Higher Education and the Open University Press.
- Boud, D. and Walker, D. (1990) 'Making the most of experience', *Studies in Continuing Education*, 12, 2: 61–80.

- Boud, D. and Walker, D. (eds) (1991) *Experience and Learning: Reflection at work*, Geelong: Deakin University Press.
- Bowden, J. and Marton, F. (1998) *The University of Learning: Beyond quality and competence in higher education*, London: Kogan Page.
- Bowles, S. and Gintis, H. (1976) *Schooling in Capitalist America*, London: Routledge and Kegan Paul.
- Bradbeer, J. (1998) *Imagining Curriculum: Practical intelligence in teaching*, New York: Teachers' College Press, Columbia University.
- Brandom, R. (1994) *Making it Explicit*, Cambridge, Mass: Harvard University Press.
- Brennan, M. (1998) 'Struggles over the definition and practice of the educational doctorates in Australia', *Australian Educational Researcher*, 25, 1: 71–89.
- Brookfield, S. (1993) 'On impostership, cultural suicide and other dangers: How nurses learn critical thinking', *Journal of Continuing Education in Nursing*, 24, 5: 197–205.
- Brosio, R. (1994) *A Radical Democratic Critique of Capitalist Education*, New York: Peter Lang.
- Brown J., Collins A., and Duguid P. (1989) 'Situated cognition and the culture of learning', *Educational Researcher*, 18 (Jan–Feb): 32–42.
- Bryant, I. and Usher, R. (1997) 'The personal and the particular: Adult educators, post-modernity and the problem of localised knowledge', in *Proceedings, Standing Conference on University Teaching and Research in the Education of Adults 27th Annual Conference*, London: University of Sussex.
- Burbules, N. (1995) 'Postmodern doubt and philosophy of education', in Alven Neiman (ed.) *Philosophy of Education 1995*, Urbana, Illinois: Philosophy of Education Society.
- (1996) 'Deconstructing "difference" and the difference this makes to education', *Philosophy of Education 1996*, 114–23.
- Burke, T. (1994) *Dewey's New Logic: A reply to Russell*, Chicago: University of Chicago Press.
- Butler, E. (1999) 'Technologising Equity: the politics and practices of workplace learning' (pp. 132–150) in D. Boud, D. and J. Garrick (eds) *Understanding Learning at Work*, London: Routledge.
- Calderhead, J. (1989) 'Reflective teaching and teacher education', *Teaching and Teacher Education*, 5: 43–51.
- Caldwell, B. (1999) 'Market, choice and public good in education', *Australian Journal of Education*, 43, 3: 257–72.
- Candy, P., Crebert, G., and O'Leary, J. (1994) *Developing Lifelong Learners Through Undergraduate Education*, Canberra: National Board of Employment, Education and Training.
- Carr, D. (1995) 'Roughing out the ground rules: Reason and experience in practical deliberation', *Journal of Philosophy of Education*, 29, 1: 137–47.
- (ed.) (1998) *Education, Knowledge and Truth: Beyond the postmodern impasse*, London: Routledge.
- Carr, W. (1987) 'What is an educational practice?', *Journal of Philosophy of Education*, 21, 2: 163–75.
- Castles, S. (1992) *The Challenge of Multiculturalism: Global changes and Australian experiences: Working papers on Multiculturalism No 19*, Canberra: Office for Multicultural Affairs, Dept. of Prime Minister and Cabinet.
- Cervero, R. (1992) 'Professional practice, learning and continuing education: An integrated perspective', *International Journal of Lifelong Education*, 11, 2: 91–101.
- Chaiklin, S. and Lave, J. (eds) (1993) *Understanding Practice: Perspectives on activity and context*, Cambridge: Cambridge University Press.
- Clanchy, J. and Ballard, B. (1995) 'Generic skills in the context of higher education', *Higher Education Research and Development*, 14, 2: 155–66.

- Constas, M. (1998) 'The changing nature of educational research and a critique of post-modernism', *Educational Researcher*, 27, 2: 26–33.
- Cope, B. and Kalantzis, M. (1998) *Productive Diversity: An Australian model of work and management*, Sydney: Pluto Press.
- Copeland, T. (1990) *Valuation: Measuring and managing the value of companies*, New York: Wiley.
- Cornelius, H. (1998) *The Gentle Revolution: Men and women at work – what goes wrong and how to fix it*, East Roseville, New South Wales: Simon and Schuster Australia.
- Cropley, A. (ed.) (1979) *Lifelong Education: A stocktaking*, Hamburg: UNESCO Institute for Education.
- Csikszentmihalyi, M. (1992) *Flow: The psychology of happiness*, London: Rider.
- Descartes, R. (1642) *Philosophical Writings*, trans. E. Anscombe and P. Geach 1954, reprinted 1966, Thomas Nelson Australia.
- DETYA (2000) *Employer Satisfaction with Graduate Skills: Research Report 99/7*, Canberra: Evaluations and Investigations Program, Higher Education Division, Department of Education Training and Youth Affairs.
- Dewey, J. (1916) *Democracy and Education*, 1966 edn, New York: Free Press.
- (1938) *Logic: The theory of inquiry* (ed. J. A. Boydston, 1991) Vol. 12 of *John Dewey: The Later Works, 1925–1953*, Carbondale and Edwardsville: Southern Illinois University Press.
- (1975) *Experience and Education*, originally published 1938, New York: Collier Books.
- Dunne, J. (1993) *Back to the Rough Ground: 'Phronesis' and 'techne' in modern philosophy and in Aristotle*, Notre Dame/London: University of Notre Dame Press.
- Eagleton, T. (1997) *The Illusions of Postmodernism*, Oxford and Cambridge, Mass: Blackwell.
- Edel, A. (1973) 'Analytic philosophy of education at the crossroads' in J. F. Doyle (ed.), *Educational Judgements*, London: Routledge and Kegan Paul.
- Educational Philosophy and Theory* (1999) 'Theme Issue: Practical Reasoning', 31, 3. D. Beckett and P. Hager, guest editors.
- Elliott, J. (1991) *Action Research for Educational Change*, Milton Keynes: Open University Press.
- Engeström, Y., Miettinen, R. and Punamaki, R. (eds) (1999) *Perspectives on Activity Theory*, Cambridge: Cambridge University Press.
- Eraut, M. (1985) 'Knowledge creation and knowledge use in professional contexts', *Studies in Higher Education*, 10, 2: 117–33.
- (1994) *Developing Professional Knowledge and Competence*, London: The Falmer Press.
- (1997) 'Perspectives on defining "The Learning Society"', *Journal of Education Policy*, 12, 6: 551–8.
- Evans, G. and Butler, J. (1992) 'Expert models and feedback processes in developing competence in industrial trade areas', *Australian Journal of TAFE Research and Development*, 8, 1: 13–32.
- Faigley, L. (1992) *Fragments of Rationality*, Pittsburgh: University of Pittsburgh Press.
- Ferry, N. and Ross-Gordon, J. (1998) 'An inquiry into Schön's epistemology of practice: Exploring links between experience and reflective practice', *Adult Education Quarterly*, 48, 2: 98–112.
- Field, L. and Mawer, G. (1996), *Generic Skill Requirements of High Performance Workplaces*, Sydney NSW: Key Competencies Pilot Project, Dept. of Training and Education Co-ordination.
- Flood, R. and Romm, N. (1996) *Diversity Management: Triple loop learning*, New York: J. Wiley.
- Focus* (1997) Egon Zehnder International, Hamburg, 1, 1.

- Foley, G. (ed.) (1995) *Understanding Adult Education and Training*, Sydney: Allen and Unwin.
- Garrick, J. (1998) *Informal Learning in the Workplace*, London: Routledge.
- Garrick, J. and Solomon, N. (1997) 'Technologies of compliance in training', *Studies in Continuing Education*, 19, 1: 71–81.
- Garrison, J. (1995) 'Dewey's philosophy and the experience of working: Labor, tools and language', *Synthese*, 105: 87–114.
- (1998a) 'John Dewey's philosophy as education' in L. A. Hickman (ed.) *Reading Dewey: Interpretations for a postmodern generation*, Bloomington and Indianapolis: Indiana University Press.
- (1998b) 'Foucault, Dewey and self-creation', *Educational Philosophy and Theory*, 30, 2: 111–34.
- (1999) 'John Dewey's theory of practical reasoning', *Educational Philosophy and Theory*, 31, 3: 291–312.
- Gibbons, M., Lomoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M., (1994) *The New Production of Knowledge: The dynamics of science and research in contemporary societies*, London: Sage.
- Gibson, R. (ed.) (1997) *Rethinking The Future*, London: Nicholas Brealey.
- Giddens, A. (1979) *Central Problems in Social Theory: Action, structure and contradiction in social analysis*, London: Routledge.
- Gilroy, P. (1993) 'Reflections on Schön: an epistemological critique and a practical alternative' in P. Gilroy and M. Smith (eds) *International Analyses of Teacher Education: Festschrift for Edgar Stones*, Oxford: Carfax Publishing.
- Glaser, R. (1985) 'The Nature of Expertise', *Occasional Paper No. 107*, Columbus, Ohio: National Center for Research in Vocational Education.
- Goleman, D. (1996) *Emotional Intelligence: Why it can matter more than IQ*, London: Bloomsbury.
- Gomez, P. (1997) 'An integrated approach to corporate value management', *Focus*, Hamburg: Egon Zehnder International, 1,1: 32–7.
- Gonczy, A., Curtain R., Hager P., Hallard A. and Harrison J. (1995) *Key Competencies in On-the-Job Training*, Sydney: University of Technology, Sydney.
- Gonczy, A., Hager, P. and Oliver L. (1990) *Establishing Competency Standards in the Professions: NOOSR Research Paper No 1*, Canberra: Australian Government Publishing Service.
- Gore, A. (2000) '100 fastest-growing private companies: trends', *Business Review Weekly*, March 10.
- Gutmann, A. (1987) *Democratic Education*, Princeton New Jersey: Princeton University Press.
- Hager, P. (1990) 'Vocational education/General education – A false dichotomy?', *Studies in Continuing Education*, 12, 1: 13–23.
- (1994) 'Is There a Cogent Philosophical Argument Against Competency Standards?', *Australian Journal of Education*, 38,1: 3–18.
- (1996a) 'Relational realism and professional performance', *Educational Philosophy and Theory*, 28, 1: 98–116.
- (1996b) 'Professional Practice in Education: Research and issues', *Australian Journal of Education*, 40, 3: 235–47.
- (1997) *Learning in the Workplace*, Adelaide National Centre for Vocational Education Research.
- (1998) 'On-the-job and off-the-job assessment: Choosing a balance', *Australian and New Zealand Journal of Vocational Education Research*, 6, 2: 87–103.

- (1999a) ‘Robin Usher on Experience’, *Educational Philosophy and Theory*, 31, 1: 63–75.
- (1999b) ‘Finding a Good Theory of Workplace Learning’, in D. Boud and J. Garrick (eds) *Understanding Learning at Work*, London and New York: Routledge.
- (2000a) ‘Know How and Workplace Practical Judgement’, *Journal of Philosophy of Education*, 34, 2: 281–96.
- (2000b) ‘Knowledge that works: Judgement and the university curriculum’, in C. Symes and J. McIntyre (eds) *Working Knowledge: The new vocationalism and higher education*, London: Open University Press.
- Hager P., Athanasou, J. and Gonczi, A. (1994) *Assessment Technical Manual*, Department of Employment, Education and Training, Canberra: Australian Government Publishing Service.
- Hager, P. and Beckett, D. (1995) ‘Philosophical underpinnings of the integrated conception of competence’, *Educational Philosophy and Theory*, 27, 1: 1–24.
- (1998) ‘What would lifelong education look like in a workplace setting?’ in J. Holford, P. Jarvis and C. Griffin (eds) *International Perspectives on Lifelong Learning*, London: Kogan Page.
- Hager, P. and Butler, J. (1996) ‘Two models of educational assessment’, *Assessment and Evaluation in Higher Education*, 21, 4: 367–78.
- Hager, P., McIntyre, J., Moy, J., Comyn, P., Stone, J., Schwenke, C. and Gonczi, A. (1996) *Workplace Keys: Piloting the key competencies in workplace training*, Sydney: University of Technology, Sydney.
- Handy, C. (1997) ‘Finding Sense in Uncertainty’ in R. Gibson (ed.) *Rethinking The Future*, London: Nicholas Brealey.
- Harding, S. (1991) *Whose Science? Whose Knowledge? Thinking from women’s lives*, Buckingham: Open University Press.
- Heywood, L., Gonczi, A., and Hager, P. (1992) *A Guide to Development of Competency Standards for Professions: NOOSR Research Paper No. 7*, Canberra: Australian Government Publishing Service.
- Hickman, L. (1990) *John Dewey’s Pragmatic Technology*, Bloomington and Indianapolis: Indiana University Press.
- (1998) ‘Dewey’s theory of inquiry’ in L. Hickman (ed.) *Reading Dewey: Interpretations for a postmodern generation*, Bloomington and Indianapolis: Indiana University Press.
- Hirst, P. (1965) ‘Liberal education and the nature of knowledge’ reprinted in R.S. Peters (ed.) (1973) *The Philosophy of Education*, London: Oxford University Press.
- (1993) ‘Education, knowledge and practices’ in R. Barrow and P. White (eds) *Beyond Liberal Education: Essays in honour of Paul H. Hirst*, London and New York: Routledge.
- Honderich, T. (ed.) (1998) *Oxford Companion to Philosophy*, Oxford and New York: Oxford University Press.
- Hyland, T. (1997) ‘Reconsidering competence’, *Journal of Philosophy of Education*, 31, 3: 491–501.
- Illich, I. (1973) *Deschooling Society*, Harmondsworth: Penguin.
- International Labour Organisation (2000) *Training for Employment: Social inclusion, productivity and youth employment*, Geneva: International Labour Organisation, 88th session.
- Jarvis, P. (1992) *Paradoxes of Learning: On becoming an individual in society*, San Francisco: Jossey Bass.
- Kallen, D. (1979) ‘Recurrent education and lifelong learning: Definitions and distinctions’ in T. Schuller and J. Megarry (eds) *Recurrent Education and Lifelong Learning (World Yearbook of Education 1979)*, London: Kogan Page; New York: Nicholls.

- Kant, I. (1781/7) *Critique of Pure Reason*, trans. N. Kemp Smith 1929, revised edn. 1933, reprinted 1963, London: Macmillan.
- Karpin Report (1995) *Enterprising Nation: Report of industry task force on leadership and management skills*, Canberra: Australian Government Publishing Service.
- Kennedy, M. (1987) 'Inexact sciences: Professional education and the development of expertise', *Review of Research in Education*, 14: 133–67.
- Kenny, A. (1989) *The Metaphysics of Mind*, Oxford: Oxford University Press.
- Kirby Report (2000) *Ministerial Review of Post Compulsory Education and Training Pathways in Victoria: Final Report*, Melbourne: Department of Education, Employment and Training.
- Knowles, M. (1984) *The Adult Learner: A neglected species*, Houston USA: Gulf.
- Koestler, A. (1964) *The Act of Creation*, London: Hutchinson.
- Kuhn, T. S. (1962) *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press.
- Lave, J. (1988) *Cognition in Practice: Mind, mathematics and culture in everyday life*, Cambridge: Cambridge University Press.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate peripheral participation*, Cambridge: Cambridge University Press.
- Lemert, C. (1997) *Postmodernism Is Not What You Think*, Cambridge, Mass.: Blackwell.
- Lipman, M. (1991) *Thinking in Education*, Cambridge: Cambridge University Press.
- Mackenzie, J. (1991) 'Street *phronesis*', *Journal of Philosophy of Education*, 25, 2: 153–69.
- (1998) 'The philosophy of the subject: Back to the future', *Educational Philosophy and Theory*, 30, 2: 135–62.
- (2000) 'On Representation', paper for the *International Network of Philosophers of Education 7th Biennial Conference*, University of Sydney: Aug 18–21 (Proceedings).
- Marsick, V. and Watkins, K. (1990) *Informal and Incidental Learning in the Workplace*, London: Routledge.
- McWilliam, E. and Palmer, P. (1996) 'Pedagogues, tech(no)bods: Reinventing postgraduate pedagogy', in E. McWilliam and P. Taylor (eds) *Pedagogy, Technology, and the Body*, London: Peter Lang.
- Meyer, S. (ed.) (1985) *Dewey and Russell: An exchange*, New York: Philosophical Library.
- Mintzberg, H. (1989) *On Management*, New York: Free Press.
- Murtough, G. and Waite, M. (2000) *The Growth of Non-Traditional Employment: Are jobs becoming more precarious?* AusInfo, Canberra: Productivity Commission.
- Noddings, N. (1984) *Caring: A feminine approach to ethics and moral education*, Berkeley: University of California Press.
- Noddings, N. and Shore, P. (1984) *Awaking the Inner Eye: Intuition in education*, New York: Teachers' College Press, Columbia University.
- Noel, J. (1999) 'On the varieties of *phronesis*', *Educational Philosophy and Theory*, 31, 3.
- Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-Creating Company*, Oxford: Oxford University Press.
- Norris, C. (1993) *The Truth About Postmodernism*, Oxford: Blackwell.
- Norris, D. and Dolence, M. (1996) 'IT leadership is key to transformation', *Cause & Effect*, 19, 11: 11–20.
- O'Loughlin, M. (1997) 'Corporeal subjectivities: Merleau-Ponty, education and the post-modern subject', *Educational Philosophy and Theory*, 29, 1: 20–31.
- (1998) 'Paying attention to bodies in education: Theoretical resources and practical suggestions', *Educational Philosophy and Theory*, 30, 3: 275–98.
- Oakeshott, M. (1962) *Rationalism in Politics*, New York: Basic Books.

- Organization for Economic Cooperation and Development (OECD) (1996) *Lifelong Learning For All: Report of the meeting of the Education Committee at ministerial level*, Paris: OECD.
- (1998) *Human Capital Investment: An international comparison*, Paris: OECD.
- (2000) *Local Development and Job Creation*, February, Paris: OECD.
- Owen, M. and Holmes, C. (1993) ‘“Holism” in the discourse of nursing’, *Journal of Advanced Nursing*, 18, 1688–1695.
- Pan Dictionary of Philosophy* (1979), London: Pan Books.
- Passmore, J. (1980) *The Philosophy of Teaching*, London: Duckworth.
- Pearson, A. (1980) ‘The competency concept’, reprinted as ‘Competence: A normative analysis’ in E. C. Short (ed.) (1984) *Competence: Inquiries into its meaning and acquisition in educational settings*, Lanham: University Press of America.
- Peters, M., Marshall, J. and Fitzsimons, P. (2000) ‘Managerialism and educational policy in a global context: Foucault, neoliberalism and the doctrine of self-management’, in N. Burbules and C. Torres (eds), *Globalisation and Education: Critical perspectives*, London: Routledge.
- Peters, R. (ed.) (1967) ‘What Is An Educational Process?’ in his *The Concept of Education*, London: Routledge and Kegan Paul.
- Polanyi, M. (1958) *Personal Knowledge: Towards a post-critical philosophy*, London: Routledge and Kegan Paul.
- Popper, K. (1963) *Conjectures and Refutations*, London: Routledge and Kegan Paul.
- Pring, R. (1995) *Closing the Gap: Liberal education and vocational preparation*, London: Hodder and Stoughton.
- Quinn, R. (1991) *Beyond Rational Management*, San Francisco: Jossey-Bass.
- Raelin, J. (1998) ‘Work-based learning in practice’, *Journal of Workplace Learning* 10, 6/7. <http://www.emerald-library.com/brev/08610fal.htm>.
- Raizen, S. (1994) ‘Learning and work: The research issues’, in *Vocational Education and Training for Youth: Towards coherent policy and practice*, Paris: OECD/United States Department of Education.
- Rappaport, A. (1986) *Creating Shareholder Value: The new standard for business performance*, New York: Free Press.
- Rawls, J. (1993) *Political Liberalism*, New York: Columbia University Press.
- Reich, R. (1992) *The Work of Nations: Preparing ourselves for the 21st century capitalism*, New York: Random House.
- Robbins, S. (1993) *Organisational Behaviour*, New York: Prentice Hall.
- Rorty, R. (1989) *Contingency, Irony and Solidarity*. Cambridge: Cambridge University Press.
- (1999) *Philosophy and Social Hope*, Harmondsworth: Penguin Books.
- Ross, W. (1923) *Aristotle*, London: Methuen.
- Ryle, G. (1949) *The Concept of Mind*, London: Hutchinson.
- Saunders, M. (1995) ‘The integrative principle: higher education and work-based learning in the UK’, *European Journal of Education* 30, 2: 203–16.
- Schatzki, T. (1996) ‘Practiced bodies: subject, gender, and minds’, in T. Schatzki and W. Natter (eds) *The Social and Political Body*, London: Guildford Press.
- Schön, D. (1983) *The Reflective Practitioner*, New York: Basic Books.
- (1987) *Educating the Reflective Practitioner: Towards a new design for teaching and learning in the professions*, San Francisco: Jossey-Bass.
- Schuller, T. (2000) ‘Thinking about social capital’, *Open University Lifelong Learning Global Colloquium*, <http://www.open.ac.uk/lifelong-learning/papers/index.html>.
- Scott, P. (1991) *The Postmodern Challenge*, Stoke-on-Trent UK: Trentham Books.

- Sefton, R., Waterhouse, P. and Cooney R. (1995) *Workplace Learning and Change: The workplace as a learning environment*, Doncaster, Victoria Australia: National Automotive Industry Training Board.
- Senge, P. (1990) *The Fifth Discipline: The art and practice of the learning organisation*, New York: Doubleday.
- Shusterman, R. (1997) *Practicing Philosophy: Pragmatism and the philosophical life*, New York: Routledge.
- Smith, R. (1997) 'Practical judgement', unpublished paper presented to the *Knowledge Productivity: Concepts and Issues Seminar*, University of Leiden, November 20–22.
- Sokal, A. and Bricmont, J. (1998) *Intellectual Impostures*, London: Profile.
- Solomon, R. (1992) *Ethics and Excellence*, New York: Oxford University Press.
- Stasz, C. and Grubb, N. (1991) *Integrating academic and vocational education: Guidelines for assessing a fuzzy reform*, Berkeley, California: National Centre for Research in Vocational Education.
- Stasz, C., Ramsey, K., Eden, R., Melamid, E. and Kaganoff, T. (1996) *Workplace Skills in Practice*, Santa Monica, CA: Rand/National Center for Research in Vocational Education.
- Sternberg, R. (1990) *Metaphors of Mind: Conceptions of the nature of intelligence*, Cambridge: Cambridge University Press.
- Stevenson, J. (ed.) (1996) *Learning in the Workplace: Tourism and hospitality*, Brisbane, Australia: Centre for Skill Formation Research and Development, Griffith University.
- Tennant, M. (1991) 'Expertise as a dimension of adult development: Implications for adult education', *New Education*, 13, 1: 49–55.
- Thayer-Bacon, B. (1997) 'The nurturing of a relational epistemology', *Educational Theory*, 47, 2: 239–60.
- Toulmin, S. (1999) 'Knowledge as shared procedures', in Y. Engestrom, R. Miettinen and R. Punamaki (eds) *Perspectives on Action Theory*, Cambridge: Cambridge University Press.
- Tremmel, R. (1993) 'Zen and the art of reflective practice in teacher education', *Harvard Educational Review*, 63, 4: 434–58.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (1972) *Learning to Be: The Faure Report*, Paris: UNESCO.
- (1996) *Learning: The Treasure Within: Report of the International Commission on Education for the 21st Century*, Paris: UNESCO.
- (1999) *Lifelong Learning and Training: A Bridge to the Future, Second International Congress on Technical and Vocational Education* (Seoul, April), Paris: UNESCO.
- Usher, R. (1989) 'Locating experience in language: Towards a poststructuralist theory of experience', *Adult Education Quarterly*, 40, 1: 23–32.
- (1992) 'Experience in adult education: A post-modern critique', *Journal of Philosophy of Education*, 26, 2: 201–14.
- (1993) 'Experiential Learning or Learning from Experience: Does it make a difference?' in D. Boud, R. Cohen and D. Walker (eds) *Using Experience for Learning*, Buckingham and Bristol: Society for Research into Higher Education and Open University Press.
- (1997) 'Seductive Texts: Competence, power and knowledge in postmodernity' in R. Barnett and A. Griffin (eds) *The End of Knowledge in Higher Education*, London: Cassell.
- Usher, R. and Edwards, R. (1994) *Postmodernism and Education*, London: Routledge.
- Usher, R., Bryant, I. and Johnston, R. (1997) *Adult Education and the Postmodern Challenge: Learning beyond the limits*, London: Routledge.

- von Krogh, G. and Roos, J. (eds) (1996) *Managing Knowledge: Perspectives on cooperation and competition*, London: Sage.
- Wall, L. (1999) *Perl: The first postmodern computer language*, <http://www.wall.org/~larry/pm.html>.
- Watson, J. (1988) *Nursing: Human Science and Human Care: A theory of nursing*, New York: National League for Nursing.
- Weil, S. and McGill, I. (1989) 'A Framework for Making Sense of Experiential Learning' in S. Weil and I. McGill (eds) *Making Sense of Experiential Learning*, Milton Keynes: Open University Press.
- Wenger, E. (1998) *Communities of Practice: Learning, meaning and identity*, Cambridge: Cambridge University Press.
- White, J. (1997) *Education and the End of Work: A new philosophy of work and learning*, London: Cassell.
- Whitehead, A. (1950) *The Aims of Education and Other Essays*, London: Ernest Benn.
- Williams, M. (1994) 'The significance of learning in Wittgenstein's later philosophy', *Canadian Journal of Philosophy*, 24, 2: 173–203.
- Wilson, A. (1992) 'New maps of old terrain', *Times Higher Education*, May 1: 17–20.
- Winch, C. (1995) 'Education needs training', *Oxford Review of Education*, 21, 3: 315–25.
- (1998) *The Philosophy of Human Learning*, London: Routledge.
- Wittgenstein, L. (1961) *Tractatus Logico-Philosophicus*, London: Routledge and Kegan Paul.
- (1963) *Philosophical Investigations*, Oxford: Blackwell.
- Wolf, A. (1989) 'Can competence and knowledge mix?' in J. W. Burke (ed.) *Competency Based Education and Training*, London: The Falmer Press.
- Wood, C., with Sleet, R. (1993) *Creative Problem Solving in Chemistry*, London: The Royal Society for Chemistry.
- World Initiative on Lifelong Learning (1995) *Lifelong Learning: Developing human potential*, Brussels: European Lifelong Learning Initiative.
- Yates, G. and Chandler, M. (1991) 'The cognitive psychology of knowledge: Basic research findings and educational implications', *Australian Journal of Education*, 35, 2: 131–53.
- Young, M. (ed.) (1971) *Knowledge and Control: New directions for sociology of education*, London: Collier-Macmillan.

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