Philosophical Accounts of Learning

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There is a common story about learning that goes something like this. The best learning resides in individual minds not bodies; it centres on propositions (true, false; more certain, less certain); such learning is transparent to the mind that has acquired it; so the acquisition of the best learning alters minds not bodies. Subsidiary threads of the story include: the best learning can be expressed verbally and written down in books, etc.; the process and product of learning can be sharply distinguished; and, though residing in minds and books, the best learning can be applied, via bodies, to alter the external world.

A number of basic assumptions about learning underpin this story. Chief amongst these is the following major assumption:

- *There is one best kind of learning, the furnishing of minds with true propositions.*

Thus, though it is recognised that learning comes in distinct kinds, according to this assumption, the relative worth of all types of learning is to be judged against the best, viz acquisition of propositions by minds. This major assumption centrally underpins the above story. Closely related to it are a number of other assumptions as follows:

- *Learning is best studied scientifically.* Hence the search for *the* correct, comprehensive theory of learning, e.g. by psychologists.
- *Learning is essentially an individual activity.* Hence the focus on individual persons or minds by almost all learning theories.
- *Learning that is non-transparent is inferior.* Since minds have self-reflexive access to the propositions they contain, the best kind of learning is transparent to the learner.
- *Learning centres on the stable and enduring.* Since true propositions are in some sense unchanging and enduring, the best kind of learning remains relatively stable over time.
- *Learning is replicable.* If the best kind of learning is something that is stable and enduring, then the learning of different learners can be literally the same or identical.
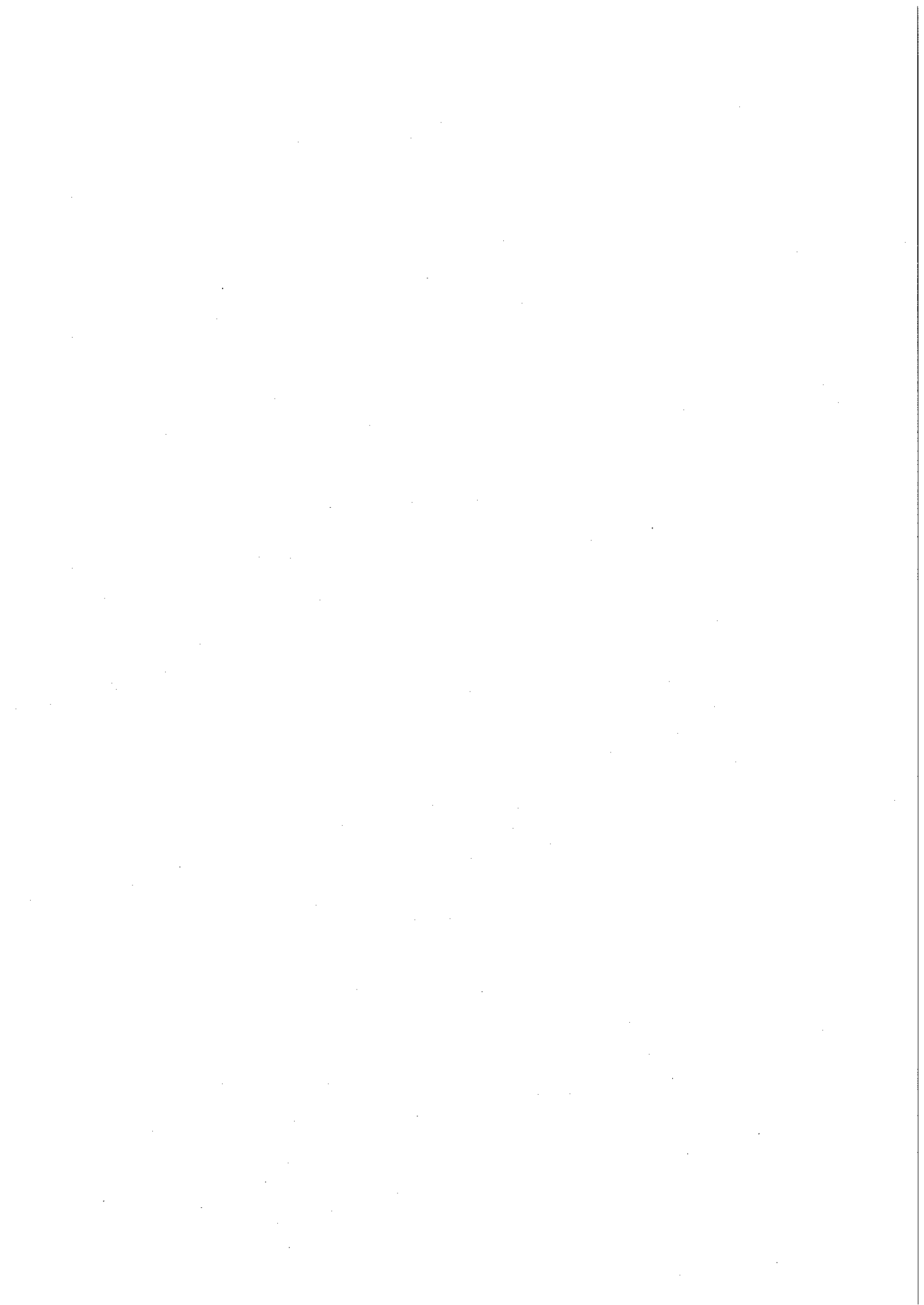
The main purpose of this paper is to further delineate and then to challenge each of these basic assumptions about learning. The main implication of challenging these basic assumptions is that a somewhat different philosophical understanding of learning emerges. Finally, the consequences of adopting this different understanding of learning for a range of current educational issues will be considered briefly.

The basic assumptions expounded

- *There is one best kind of learning.*

As noted already, this is the central basic assumption that connects with and supports in various ways the other assumptions. Hence this key assumption will be discussed in some detail; then the others will be treated more briefly. The prominence in educational thought of the assumption that there is one best kind of learning can be traced to the abiding influence of Greek ideas, particularly those of Plato and Aristotle, a prominence preserved by the later equally significant influence of Cartesian ideas. 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. For example, according to Aristotle, theoretical knowledge is superior to both practical and productive knowledge. Aristotle associated theoretical knowledge with "certainty, because its object was said to be what is always or for most part the case" (Hickman 1990, p. 107). As Aristotle saw it, theoretical knowledge thereby shared in the divine. For him practical (or ethical) knowledge was ranked below theoretical knowledge because it involved "choice among relative goods" (Hickman 1990, pp. 107-8). But productive knowledge was ranked even lower because it involved "the making of things out of contingent matter" (Hickman 1990, pp. 108). This Greek hierarchy of theory/practice/production was not only epistemological, but also social in that the kind of knowledge that was a person's daily concern correlated closely with their role and standing in the city state.

As this discussion suggests, a striking feature of the assumption that there is one best kind of learning is the foregrounding of a series of dualisms such as mind/body, thought/emotion, theory/practice. The mind/body dualism underpins the notion that all mental events and activities are *essentially* interior to the mind. As Toulmin (1999, p. 56) puts it, common understandings of learning assume 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. As Winch (1998) points out, modern cognitivism rejects this interiority of the

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mental, but still persists with the assumption that the most valuable form of learning is focused on thinking (what minds do), rather than on action in the world (what bodies do, or, more exactly, what embodied minds do).

Though the contents of minds were often characterised by the vague term 'ideas', concepts and propositions as objects of thought are central to the common story about learning set out above. According to this story, 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 (see, e.g., Winch 1998, p. 63ff). 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 arises the temptation to view propositions as timeless universal entities.

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

As the above discussion suggests, the prominence in educational thought of the assumption that there is one best kind of learning, centred on the acquisition of favoured propositions, can be traced to the ongoing influence of certain philosophical traditions. Perhaps one reason for the enduring influence of these ideas on learning both within philosophy and beyond it is that, according to these assumptions, learning of philosophy itself becomes something of a paradigm of learning. Of course, there has been a long tradition that the primary focus of philosophy is how to live one's life well. But it is an ongoing legacy of the influence of mind/body dualism that the essential first step is for the mind to acquire the right sorts of propositions, usually by formal study.

The ongoing influence of this rationalist bias as regards what learning should be most valued is evident in more recent work in philosophy of education. For instance, Hirst & Peters (1970) recognised that it follows from their two logically necessary conditions for learning that there is a wide variety of kinds of learning. The two necessary conditions for learning are: that it have an object; and that some standard of achievement or success has been met (1970, p. 75). Because of

the seemingly endless diversity of objects of learning, there are very many different kinds of learning. However, some of these are to be valued more highly than others.

> The value criterion for education clearly implies that much which can be learnt must be excluded from education either as undesirable .... or as trivial ..... (Hirst & Peters, 1970, p. 76)

It is because "education is taken to centre on developing desirable states of mind involving knowledge and understanding" (Hirst & Peters, 1970, p. 85), that, for example, learning Newton's laws of motion is valued above learning of physical skills of whatever kind, or even above learning of highly useful interpersonal skills such as the capacity to empathise with the feelings of others.

A similar tendency to elevate the more rational forms of learning is found in Hamlyn. He takes the line that less rational forms of learning can be assimilated to the more rational ones. In attempting to define 'learning' he proposes

> .... that learning must at least involve the acquisition of knowledge through experience and that changes of behaviour due to learning must be the result of the new knowledge. (Hamlyn 1973, p. 180)

Hamlyn then considers the objection that there are various kinds of learning that appear not to centrally involve the acquisition of knowledge. He instances learning to love someone, but suggests that even here "my love follows upon and exists in virtue of what I have come to know", though he admits that how this happens is too "complex" to "enter upon here" (p. 180). Thus, without going into the complexity, Hamlyn maintains that such instances of learning ".... are parasitical upon those cases of learning which do involve the acquisition of knowledge *simpliciter*" (p. 180). In fact the problem for Hamlyn is that in making knowledge acquisition a necessary condition for learning, his analysis covers the very many diverse kinds of learning only at the cost of broadening the notion of knowledge so as to include the full range of know how, much of which is tacit or implicit. This contravenes the requirement that the best kind of learning is explicit and transparent, as will be discussed further below.

Having discussed the central assumption in some detail, the subsidiary ones will now be considered more briefly.

- *Learning is best studied scientifically.*

If there is one best kind of learning against which the worth of all other kinds is to be judged, this encourages the notion that there should be a single preferred theory of learning to cover the best learning. Or the theory might even be entertained that lesser kinds of learning are somehow reducible to the kind that exemplifies *the* correct, comprehensive theory of learning. Such ideas have been

influential in attempts to provide scientific accounts of learning e.g. by psychologists.

- *Learning is essentially an individual activity.*

The common story about learning involves the basic image of an individual human mind steadily being stocked with propositions. This implies that each individual mind can potentially recapitulate the course of human learning. Hence, on this view, in theorising learning, the individual is the appropriate unit of analysis. Thus, the focus of learning as a *process* is on circumstances that favour the acquisition of ideas by individual minds. The focus of learning as a *product* is on the stock of accumulated ideas that constitute a well-furnished individual 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, not only does the common story about learning favour a mind/body dualism, it makes learning an essentially solitary process, an individualistic even narcissistic process, where the learner becomes a spectator aloof from the world.

- *Learning that is non-transparent is inferior.*

For the common story about learning, to have successfully learnt in the best sense, is to know what it is that you have learnt. Winch puts this point as follows:

> 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. Once again propositions are the model. If we really understand (have learnt) a proposition then we will be able to 'bring it before the mind'. Inability to do so indicates ineffectual or inferior learning. This also implies that for the common story about learning, non-transparent learning, such as tacit knowledge, informal learning, and the like, is either an aberration or a second rate kind of learning.

- *Learning centres on the stable and enduring.*

Another presupposition of the common story about learning centres on the idea that products of the best kind of learning are relatively stable and enduring. Traditional understandings of the nature of propositions have reinforced this presupposition. Stable products of learning can be incorporated into curricula

and textbooks, be passed on from teachers to students, their attainment be measured in examinations, and the examination results for different teachers and different institutions be amenable to ready comparison. Thus formal education systems are set up to deal with assessment of learning that is stable, familiar and widely understood. Engestrom puts this assumption of what he calls "standard theories of learning" as follows: "a self-evident presupposition that the knowledge or skill to be acquired is itself stable and reasonably well-defined" (Engestrom 2001, p. 137).

- *Learning is replicable.*

This can be thought of as a corollary of the stability assumption. As noted above, the practice of comparing assessment results for students across different class groupings and different institutions involves the stability of learning assumption. In fact, the everyday practice of comparing the learning of different students also requires an even more fundamental presupposition, the replicabilty assumption. This is the assumption that the learning of different learners can be literally the same or identical. The sorting and grading functions of education systems require the possibility of this kind of foundational certainty of marks and grades. These matters are reflected in the common term used to denote replicabilty of learning - different students are said to have the same 'attainment'.

As a check of several English dictionaries confirmed, **'to attain'** means 1. to arrive at, reach (a goal, etc.), or 2. to gain, accomplish (an aim, distinction, etc.). In either case, conscious development or effort is often involved. The noun **'attainment'** has two distinct meanings reflecting the process/product distinction: 1. the act or an instance of attaining, or 2. something attained or achieved; an accomplishment. Thus, when applied to learning, the verb to attain introduces metaphorical connotations - learners have arrived at or reached a place or gained an object. This is consistent with the Latin derivation from 'attingere' - to touch.

These metaphors associated with attainment appear to fit very well with various aspects of the common story about learning. For a start they encompass the process/product distinction. Attaining learning, stocking the mind with contents is akin to arriving at a goal or gaining an object. The learning that has been attained is akin to the mind having 'touched' the relevant propositions. Recall that propositions were sometimes viewed as timeless, unchanging entities located in a world of ideas. Students with the same level of attainment can be thought of as mentally 'touching' the same range of universal propositions. Inside their individual minds each has completed the same mental journey, on the way calling at the prescribed places or destinations.

These, then, are the basic assumptions that underpin the common story about learning. Each of them have attracted cogent philosophical criticisms.

The basic assumptions challenged

- *There is one best kind of learning.*

Because this central basic assumption connects with and supports in various ways the other assumptions, it was discussed above in more detail. Similarly, the various grounds for challenging this key assumption will be treated now in some detail. Then objections to the other basic assumptions will be presented more briefly.

Two major challenges to the claim that propositional learning constitutes the one best kind of learning come from its reliance on dualisms such as mind/body and its narrowly rationalistic quarantining of thinking from other important human characteristics like emotion and conation.

1. Problems with dualisms
As noted earlier, the assumption that there is one best kind of learning foregrounds a series of dualisms such as mind/body, thought/emotion, theory/practice. However, these basic dualisms 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, i.e. not all valuable knowledge is the domain of the passive spectator. Nevertheless, the elevation of theoretical knowledge over practice has strongly shaped the front-end model of vocational preparation. This model views the main business of vocational preparatory courses as supplying novices with the stock of theoretical knowledge that they will apply later on to solve the problems that they encounter in their workplace practice. Not surprisingly, the current era has been marked by an increasing breakdown of the front-end model of occupational preparation (Beckett & Hager 2002, chapter 6).

2. Narrow rationalism

As we have seen, the common story about learning, influenced by Plato, Aristotle, and later, Descartes, ensures that knowledge is quarantined from emotion and will. If humans are essentially minds that incidentally inhabit bodies, then development of mind remains the focus of education. Likewise, if thinking is the essential characteristic of minds, it can be treated in isolation from non-essential characteristics like emotion and conation.

As Hirst (1998, p. 18) summarised it, this rationalist view of learning

> .... is based on seeing the exercise of reason as necessarily the use of our cognitive powers, independent of all other capacities, to achieve propositional knowledge and understanding to which all other aspects of human life must then conform.

However, Hirst adds, contemporary philosophical work has severely challenged this account of "the operation of reason in the living of a rational life" with important consequences for philosophy of education. In particular it rejects the idea of

> .... education as centrally the acquisition of propositional, or abstracted, detached theoretical knowledge and understanding.
>
> (Hirst 1998, p. 18)

"The central tenet here is that social practices and practical reason are the fundamental concerns of education, not propositional knowledge and theoretical reason." (Hirst 1998, p. 19)

Dewey, of course, is one noted philosopher of education who rejected both the dualisms and the narrow rationalism inherent in the assumption that propositional learning constitutes the one best kind of learning. He was a noted critic of dualisms, such as the mind/body dualism, and of spectator theories of knowledge. For Dewey (e.g. , 1916, 1938) 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 judgment which incorporates, along with the cognitive, other factors that are omitted from the essentially rationalist common story about learning such as the ethical, the aesthetic and the conative. Some idea of the scope and significance of Deweyan judgment can be gleaned from the following quotation:

> Dewey's view also differs from mainstream theories of logic in terms of what it is that judgment accomplishes. It is a commonly held view that the point of judgment 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 judgment is to make a difference in the existential conditions which gave rise to the inquiry of which the final judgment 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 common story about learning. Rather propositions are part of his larger explanatory scheme.

Passmore is another philosopher of education whose account of learning takes us well beyond the learning of propositions. He draws attention to the capacities presupposed by learning. According to Passmore (1980, p. 37) 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....". Examples that he gives are: learning to- walk, run, speak, feed and clothe oneself; in literate societies, learning to- read, write, add; as well, 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), and development of interests (e.g. in mathematics). However, Passmore has each of these depending on capacities: to understand the language; to copy a sentence; to solve mathematical problems. So the argument is that capacities are basic for other kinds of learning. That is, the mental enrichment seen as basic in the common story about learning, actually depends on the exercise of learned capacities.

That capacities are much more than mental in their scope is evident from their definition and characteristics (Honderich 1998):

> '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.

Honderich 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 person's 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 (1980, p. 40) further distinguishes two different types of capacities - open and closed. He characterises them as follows:

Closed capacities: "A 'closed' capacity is distinguished from an 'open' capacity in virtue of the fact that it allows of total mastery." Examples include playing draughts, starting a car, etc.

Open capacities: "In contrast, however good we are at exercising an 'open' capacity, somebody else - or ourselves at some other time - could do it better", e.g. playing the piano.

As Passmore's range of examples of capacities, such as titrating, dissecting, healing, makes clear, their exercise often closely connects with the kind of judgment emphasised by Dewey.

Passmore's capacities are "capacities for action". This raises the role of action in learning. How important is action to learning? Consider a recent standard definition of learning: "The acquisition of a form of knowledge or ability through the use of experience" (Hamlyn in Honderich 1998). (It is worth noting that since his 1973 account of learning, discussed above, Hamlyn has expanded the scope of 'learning' to include ability as well as knowledge). At first sight this definition suggests learning is an active process, as the 'use of experience' implies. However the passive spectator featuring in the common story about learning can be seen as using experience in order to furnish the mind, so it seems that activity other than mental activity may not be required by this definition.

A learning theorist who subscribes to a stronger notion of activity is Jarvis (1992). He 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 that it occurs when presumptive (almost instinctive) action is not possible. Thus, for Jarvis 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 common story about learning that privileges contemplative learning at the expense of all other kinds of learning. He holds the common story 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 common story about 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.

Wittgenstein's later philosophy provides an abundance of arguments for rejecting the view that propositional learning constitutes the one best kind of learning. As expounded in detail by Williams (1994), the following insights into learning are central to Wittgenstein's later philosophy:

1. 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".
2. 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. So a period of training or learning is necessary to become a practitioner.
3. 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 (practice is not reducible to theory).
4. 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 judgements of sameness are based on practices, not on mental states as such.

It follows from the above that meanings are not established internally by individual minds, rather meanings emerge from collective "forms of life" (Toulmin 1999, p. 55). As Toulmin (1999, p. 58) argues:

> All *meanings* are created in the public domain in the context of *collective* situations and activities.

The central social dimension of learning that is being stressed here is closely related to the "social practices and practical reason" that Hirst (1998) claimed to be "the fundamental concerns of education". Though meanings emerge from collective forms of life, Toulmin adds that once they are created in this way, they can, of course, be internalised by individuals. But the point is that, contra the common story about learning, meanings are not essentially internal. He refers to Vygotsky's work in illustration of this (Toulmin 1999, p. 58). According to Toulmin, two key points follow from this:

1. There are various kinds and cases of internalisation,
   > Far from being a single clear-cut procedure, internalisation therefore embodies a *family* of techniques that make mental life and activity more efficaceous in a number of very different ways. (Toulmin 1999, p. 59)

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2. 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.

In his recent major philosophical study of learning (Winch 1998) Winch further expounds the implications of these Wittgensteinian themes. Winch focuses on the ineluctable normativity of human learning/life and the consequent crucial role that training plays in this. Thus, Winch argues, training is essential to teaching. He proposes that training for humans invariably involves language use and rule following. Far from being anti-educational, as some have mistakenly supposed, for Winch training in normative practices opens up options and flexibility in human behaviour. He concludes that those who see a paradox in the notion of being trained in ways that promote independence and autonomy have confused training with conditioning. The distinction is that training leads to capacities for overt rule following whereas conditioning merely results in behaviour that accords with a rule. So, for Winch, flowing out of normativism is an essential role for teaching.

What emerges from the above discussion is an acceptance that there are ineliminably many different kinds of learning, at least several of which are central to education and its associated learning. Against this, the claim that propositional learning by individual minds constitutes the one best kind of learning is seen to be intellectually threadbare. It could be dismissed as merely naïve were it not for the untold damage that it and its associated assumptions have wreaked on the theory and practice of formal education delivery over centuries. Of course, none of this is to deny that propositional learning is an important type of learning. It's just that this is no longer plausibly a standard against which all other types of learning should be judged.

- *Learning is best studied scientifically.*

The denial that there should be a single preferred theory of learning to cover the best learning, still leaves open the idea that scientific approaches are the best way to understand the diverse types of learning. Such ideas have been influential in attempts to provide scientific accounts of learning, e.g. by psychologists. Though it has been a growing trend amongst psychologists themselves to accept that the diversity of types of learning means that a 'one theory fits all' approach is unlikely to be successful (e.g. Bruner 1996, Bereiter 2002). Winch goes further in maintaining that "......the possibility of giving a *scientific* or even a *systematic* account of human learning is ..... mistaken" (1998, p. 2). His argument is that there are many and diverse cases of learning, each subject to "constraints in a variety of contexts and cultures" which precludes them from being treated in a general way (1998, p. 85). In what he views as a futile attempt to achieve

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generalisability, learning situations are studied in experimental conditions that aim to be context-free. But Winch sees two problems with this. Firstly, the experimental setting is itself "highly culture specific" and, therefore, not "context-free" (Winch, 1998, p. 85). Secondly, the settings in which learning occurs are nearly always different contexts from what pertains in the experimental setting. Hence, "... grand theories of learning .... are underpinned ... invariably ... by faulty epistemological premises." (Winch, 1998, p. 183).

Influenced by Wittgenstein, Winch recommends that we focus on description and understanding of various instances of learning viewed as distinctive cases: "....we have been obsessed with theory building at the expense of attention to particular cases...." (Winch, p. ix). It might be inferred from this that Winch views 'learning' as a family resemblance concept. In fact he never goes this far, although he does discuss family resemblance concepts in his book (pp. 110-111). Certainly, viewing learning as a family resemblance concept caters for the diversity of cases of learning while recognising that there may be no single feature common to all of them. This more inclusive approach is arguably a conceptual advance over the assumption of the common story about learning that cases of learning are to be valued according to how closely they approximate to propositional learning by minds.

So Winch stresses that he does not wish his book to be seen as advancing an alternative theory of learning, rather he is content to focus on description of particular cases. Overall, he sees himself as providing "a philosophical treatment of the concept of learning as it applies to child-rearing and education", a project necessitated by "the distorted way in which learning has been treated by many psychologists and those educationists who have been influenced by them." (Winch, 1998, p. 1).

- *Learning is essentially an individual activity.*

As noted earlier, a virtually universal assumption, central to the common story about learning, is that the individual is the correct unit of analysis. This discounts the possibility, indeed the likelihood, of communal learning, i.e. learning by teams and organisations that may not be reducible to learning by individuals. Understandings of learning centred on the individuality assumption offer 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 the problem of accounting for collective knowledge (Toulmin 1999, p. 55). Adopting the individuality assumption has wide-ranging implications for vocational education, e.g. human capital theory incorporates this assumption. This is evident from a typical definition of human

capital: '[T]he knowledge, skills and competences and other attributes embodied in individuals that are relevant to economic activity' (OECD 1998, p. 9).

However, as Winch stresses, the implications of the social nature of learning go far deeper than remedying a failure to account for collective knowledge. In crucial senses we need to recognise "the necessarily *social* nature of learning" (Winch 1998, p. 183). Normative learning of all kinds, including the important case of learning rule-following, presupposes the prior existence of social institutions. "No normative activity could exist *ab initio* in the life of a solitary" (Winch 1998, p. 7). Clearly, when considering learning, the isolated *individual* is often not the appropriate unit of analysis.

- *Learning that is non-transparent is inferior.*

The transparency assumption is challenged by the increasing recognition of the importance of non-transparent types of learning, one of which, dispositional learning, is presupposed by other forms of learning. Passmore's (1980) account of abilities or capacities that are presupposed by other forms of learning was discussed earlier in this paper. Winch (1998, p. 19) argues that knowledge is largely dispositional in Rylean terms, thereby taking the central focus firmly away from transparent propositions in minds.

- *Learning centres on the stable and enduring.*

A narrow concentration on learning of propositions encourages the assumption that what is learnt is relatively stable and enduring. However once the wide diversity of *kinds* of learning is recognised, together with the significant *contextuality* of most kinds of learning, change rather than stability is the norm. As Dewey recognised, learning to live in a more or less changing environment never stops. Such learning is not *stable* as contexts continually change and evolve. In many occupations people with just the expertise of a decade ago are no longer employable. Much work requires practitioners to develop open capacities (in Passmore's sense) in an ongoing way.

So, once the focus shifts from the learning of propositions to the diversity of kinds of learning the metaphors associated with attainment seem to fit much less well. Perhaps 'attaining but never quite' is a more suitable metaphor here since learning becomes a process as much as a product. In fact, the process/product distinction is less applicable, reflecting that finished products of learning are not so readily identifiable. In workplaces, typical learning involves developing the gradually growing capacity to participate effectively in socially-situated collaborative practices. This means being able to make holistic, context sensitive judgements about how to act in situations that may be more or less novel. As

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well, these judgements are often developed at the level of the team or the organisation. So in these circumstances the propositions acquired by individual minds may be of limited interest.

- *Learning is replicable.*

Nor, once the wide diversity learning is recognised, together with the significant contextuality of most kinds of learning, does the replicability assumption stand up to detailed scrutiny. As noted already, formal education systems have their own reasons for not questioning the replicability assumption. However, in the wide world of learning beyond the classroom, the replicability has little purchase. Quite simply, the learning histories of workers, for example, will rarely if ever be the same because of the contextuality and particularities of their different work experiences. Hence it makes little sense to look for *replicability* of learning across individual workers.

An emerging understanding of learning

What are some main features of a more inclusive understanding of learning emerging the above discussion? The following is a preliminary outline (see Beckett & Hager 2002, p. 150). Learning of many different kinds produces knowledge which:
- is integrated in judgements, which reflect a capacity for successful acting in and on the world;
- underpins choices of how to act in and on the world since such choices flow from the exercise of judgement;
- 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;
- is not all expressed verbally or written down;
- in the process of its acquisition, alters both the learner and the world (since the learner is part of the world).
- resides in individuals, teams and organisations;

Taking note of Winch's cautions about purportedly general theories of learning (discussed above), the emerging understanding of learning is not presented as a general theory. Rather it attempts to understand and explain a major sort of learning that occurs in many life activities, yet is largely overlooked by common understandings of learning. Likewise it is not being claimed that the notion of making judgements is all there is to workplace practice, nor even that judgements are central to all workplace activity.

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The above features of the emerging understanding of learning can be further clarified by expounding the general ideas on which it 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, process/product, and so on. The argument is that judgements, as both reasoning and acting, incorporate both sides of these ubiquitous dualisms. Thus, this understanding of learning does not reject as such any 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 timeless, independent existents that are the epitome of knowledge. By bringing together the propositional with the doing, the emerging understanding of learning continually judges propositions according to their contribution to the making of judgements. Because the judger is immersed in the world, so are propositions. So they lose their classical transcendental status. (For more details on judgement see Hager 2000, Beckett & Hager 2002).

Some consequences of the emerging understanding of learning

These developments in our understanding of learning have significant implications for a range of current educational issues. Three such examples will now be discussed briefly:

1. The competence debate

According to Lum (1999) there has been a conspicuous failure by philosophical critics of competence-based education to develop a cogent, coherent critique. I agree with Lum's observation whilst disputing his proposal for the line such a critique should take. My view is that the weakness of many of the criticisms stems from their unstated acceptance of a version of the common story about learning. From a perspective that the best learning involves minds acquiring propositions, competence-based education can look very like a form of behaviourism with its denial of any role for mind in understanding learning. However, the above features of the emerging understanding of learning are much closer to a rounded description of what is involved in acquiring competent performance in an activity, than are the features of either propositional learning or behavioural conditioning. Too often critiques of competence have served to emphasise their authors' unwitting attachment to narrow accounts of learning. So the emerging understanding of learning offers the conceptual tools for a more

fruitful and accurate account of competence-based education, including a critical examination of its strengths and limitations (see Beckett & Hager 2002, Ch. 3).

2. Lifelong learning

There has been much scepticism about the concept of lifelong learning within the educational literature. Once again, many of these critiques reflect their author's unstated acceptance of a version of the common story about learning. If learning is centrally about minds acquiring propositions, lifelong learning is potentially about perpetual enrolment in formal accredited courses. The individual learner is in danger of being condemned to learn all subjects/disciplines. In this respect, part of the common story about learning is an acceptance of a 'quiz show' view of what it is for someone to be learned. As well, the focus is firmly on the individual learner. Illich was right that we have been schooled to accept a 'consumer of formal courses' view of knowledge acquisition. However, as the above features of the emerging understanding of learning suggest, much learning, including informal learning at its best, is accurately described as a form of lifelong learning. Changing social and contextual circumstances may be creating conditions in which the concept of lifelong learning is potentially a fruitful one. Note also that, influenced perhaps by the common story about learning, much literature on lifelong learning assumes that the individual learner is the appropriate unit of analysis. It may however be useful to view entities such as communities and organisations having a lifetime over which they can learn.

3. The constructivism debate

Constructivism as a way of understanding teaching and learning has been enormously popular in recent years. As well, it has attracted a welter of criticism. The complexity of the issues involved reflect the many possible varieties of constructivism (Phillips 1995). For those who think of learning in terms of minds acquiring propositions that are relatively stable and unchanging, constructivism can seem a bizarre theory, especially when the learning situation is a formal one involving a teacher and a class of learners. However, some understandings of constructivism are not so strange when the learner is a practitioner in the socially-situated, normative surroundings of a workplace setting in which their work involves a fair degree of novelty, initiative and personal responsibility. Recently, Vanderstraeten (2002) has argued that Dewey's account of growth and learning as transactions between organisms and environments "anticipates, if it does not explicitly articulate, much of what is important and interesting about constructivist epistemology and constructivist pedagogy." (Vanderstraeten 2002, p. 233). I agree with Vanderstraeten and suggest that the emerging understanding of learning requires us to think about constructivism in different ways.

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Conclusion

This paper has outlined what it takes to be the dominant understanding of learning, together with the basic assumptions that underpin this understanding. These basic assumptions were challenged in various ways leading to the emergence of a somewhat different philosophical understanding of learning. Finally, some consequences of adopting this different understanding of learning for a range of current educational issues was considered briefly. In each case, abandoning the dominant understanding of learning led to a somewhat fresh approach to analysing the educational issue.

References

Beckett D. & Hager P. (2002) *Life, Work and Learning: Practice in Postmodernity.* Routledge International Studies in the Philosophy of Education 14. London and New York: Routledge.

Bereiter C. (2002) *Education and Mind in the Knowledge Age.* Mahwah, N.J./London: Lawrence Erlbaum Associates.

Bruner J. (1996) *The Culture of Education.* Cambridge, Mass./London: Harvard, University Press.

Dewey J. (1916) *Democracy and Education.* New York: Macmillan.

Dewey J. (1938) *Logic: The Theory of Inquiry,* Ed. Boydston J.A. (1991) Vol. 12 of *John Dewey: The Later Works, 1925-1953,* Carbondale & Edwardsville: Southern Illinois University Press.

Engestrom Y. (2001) 'Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization', *Journal of Education and Work,* Vol. 14, No. 1, pp. 133-56.

Hager P. (2000) 'Knowledge that Works: Judgement and the University Curriculum', in C. Symes & J. McIntyre (eds.) *Working Knowledge: The New Vocationalism and Higher Education.* Open University Press/Society for Research into Higher Education.

Hamlyn D. W. (1973) 'Human Learning' in Peters R. S. (ed.) *The Philosophy of Education.* London: Oxford University Press.

Hickman L.A. (1990) *John Dewey's Pragmatic Technology.* Bloomington & Indianapolis: Indiana University Press.

Hickman L.A. (1998) 'Dewey's Theory of Inquiry', in L.A. Hickman (ed.) *Reading Dewey: Interpretations for a Postmodern Generation.* Bloomington and Indianapolis: Indiana University Press.

Hirst P. H. & Peters R. S. (1970) *The Logic of Education.* London: Routledge & Kegan Paul.

Hirst P. H. (1998) 'Philosophy of Education: The Evolution of a Discipline' in Haydon G. (ed.) *50 Years of Philosophy of Education: Progress and Prospects.* London: Institute of Education University of London.

Honderich T. (ed.) (1998) *The Oxford Companion to Philosophy.* Oxford and New York: Oxford University Press.

Jarvis P. (1992) *Paradoxes of Learning: On Becoming an Individual in Society.* San Franscisco: Jossey Bass.

Lum G. (1999) 'Where's the Competence in Competence-based Education and Training?', *Journal of Philosophy of Education,* 33(3), pp. 403-418.

Organisation for Economic Cooperation and Development (OECD) (1998) *Human Capital Investment: An International Comparison.* Paris: OECD.

Passmore J. (1980) *The Philosophy of Teaching.* London: Duckworth.

Phillips D.C. (1995) 'The Good, the Bad, and the Ugly: The Many Faces of Constructivism', *Educational Researcher,* 24(7), pp. 5-12.

Ryle G. (1949) *The Concept of Mind.* Harmondworth: Penguin. (1963 printing).

Toulmin S. (1999) 'Knowledge as Shared Procedures', in Engestrom Y., Miettinen R. & Punamaki R. (eds.) *Perspectives on Action Theory.* Cambridge: Cambridge University Press.

Vanderstraeten R. (2002) 'Dewey's Transactional Constructivism', *Journal of Philosophy of Education,* 36(2), pp. 233-246.

Williams M. (1994) 'The Significance of Learning in Wittgenstein's Later Philosophy', *Canadian Journal of Philosophy ,* 24(2), pp. 173-203.

Winch C. (1998) *The Philosophy of Human Learning*. Routledge International Studies in the Philosophy of Education. London and New York: Routledge.