LEARNING AND PHILOSOPHY OF MIND

Mark Selman
Simon Fraser University

Abstract

This paper is an argument in favor of a revised conception of learning in the field of adult education. It suggests that prevailing conceptions in the field refer to learning as a type of internal event or process, without any clear idea about what this implies. It is suggested that such a conception is based on theories of mind which are no longer found to be convincing. An alternative conception is proposed, one which emphasizes the social nature of learning. The paper concludes with some remarks about the effect that the adoption of such a conception would have on theory in the field of adult education.

Résumé

Cet article propose un nouveau point de vue de l'apprentissage dans le domaine de l'éducation des adultes. Il suggère que les conceptions courantes dans ce domaine parlent de l'apprentissage en tant que processus ou événement interne sans que les implications de ce processus soient spécifiées. Il propose qu'une telle conception est basée sur des théories de l'esprit qui ne sont pas tout à fait convaincantes. Une conception nouvelle est proposée qui souligne la nature sociale de l'apprentissage. L'article se termine par quelques remarques sur l'effet qu'aurait l'adoption d'une telle conception sur les théories dans le domaine de l'éducation des adultes.

Introduction

There is a widespread tendency in the field of education to regard learning as a particular kind of mental event or process: something that happens 'inside one's mind'. When learning is thought of this way, it seems natural to distinguish between 'adult learning' and 'children's learning' by contrasting the nature of the processes leading up to certain sorts of mental events in adults and children. One of the purposes of this paper is to argue that 'learning' is not (most productively) used to refer to a particular kind of mental event or to a particular kind of mental process. In the words of James McClellan:

> It's no more reasonable to believe that there is one process of learning than that there is one process which includes composing sonatas, arguing logically, making love, dancing the Texas Star, and riding a unicycle. There is learning to do all these things, learning to enjoy or hate doing

them, learning when, where, and with whom to do them, learning why one should or shouldn't ... *One process?*—in the sense that photosynthesis, however complex and varied, is one process? False. Absurd. Insane.[1]

Learning can be distinguished from other sorts of human capacities, like perceiving, remembering, and deciding by the circumstances under which it is appropriate to use the word 'learn', rather than by the identification of particular happenings in the mind or brain. As a result, if one is seeking differences between adult learning and children's learning, the social context, rather than the realm of psychological theory is the most fruitful area of inquiry.

It may strike some as odd, or misguided, to discuss this issue as a problem of meaning. After all, we can 'mean' whatever we decide with the word learning, or any other word, and if some people want to use the word to refer to mental events or processes, that is their business. It might be suggested that useful knowledge about learning is only going to come about by seeing how people learn, under what conditions they do it best, and the like. Surely an examination of the meaning of words cannot be expected to make any difference to how, or how well, people learn?

My response to these objections is that there is no dearth of empirical research into problems of learning but that most research has failed to produce theory which goes beyond common sense views about how learning takes place or is best promoted. Many 'theories' in education fall far short of even this modest goal. One of the reasons may be that some of the central concepts, especially the concept of learning, are often misunderstood. What is required, in my view, is the acceptance of a revised conception of learning, one which recognizes the importance of the public, social world, in contrast to one which is situated primarily in the workings of inner, 'mental' space. Such a conception will, I argue, fit better with our everyday use of the concept of learning, and should provide a more productive frame of reference for learning theory in general, and adult learning in particular. By this, I do not mean to suggest that we will ever have a comprehensive, law-like, learning theory. There are good reasons for rejecting such a possibility.[2] But we may be able to develop a set of conceptions which are useful in making sense of situations in which learning takes place.

The idea of developing such a conception of learning is hardly original. Ludwig Wittgenstein, writing and teaching in the 1930's and 40's, realized that criteria for the use of mental concepts like perceive, read, and understand are facts about the world, not facts about inner processes.[3] To offer an example, we say that a person has 'understood' something because he or she can tell us what it means or make use of the information it contains, not because we have any knowledge about what is going on in the person's mind. But, we may be led from the perfectly natural assumption that something must be going on in the person's mind, to the more questionable assumption that a particular kind of event or process must correspond to our use of the word 'understand'. In part, this paper is a reiteration of existing work on such

mental concepts. This may be useful at the field of adult education's present state of development because it provides an alternative to a 'psychologized' conception of learning which appears to have been unproductive in contributing to the development of constructive research programs into the conditions under which adults learn.

The argument proceeds in four stages: first, establishing that prevailing conceptions of learning are in need of revision; second, outlining four conceptions of the mind and the role of mental concepts; third, suggesting an alternative to the prevailing conception of learning; and fourth, describing some effects of the proposed conception on research and practice in the field of adult education.

I. The Inadequacy of Prevailing Conceptions

A careful and detailed analysis of conceptions of learning employed in the field of adult education is beyond the scope of this paper. Rather than attempt a 'mini-survey', one particular author's description of 'learning' will be used. It is my contention that the example provided embodies several ideas which are representative of a dominant (but by no means, the only) approach to the conception in the field of adult education in North America. The familiarity of the phrases employed in the example will serve as support for this claim.

Stephen Brookfield raises the problem of how to understand the nature of learning in the context of explicating the term "self-directed learning."[4] He attributes the "considerable confusion" to which the term gives rise, to its "gerundive nature." However, one may notice that few of the same confusions attend our use of terms like 'skipping' or 'chopping'. This can be taken as an indication that there are sources of confusion which Brookfield's analysis leaves unidentified. Nevertheless, what he does take note of is significant. Citing Verner and Little, he suggests that learning should be used as a noun only:

> ... to describe an internal change in consciousness, that is, an alternation in the state of the central nervous system.[5]

Brookfield continues:

> Hence, the term *learning* would be reserved for the phenomenon of internal mental change whether that be characterized as a flash of gestalt insight, double-loop learning, or a rearrangement of neural paths. Such internal phenomena would be discernible externally in the form of permanent behavioral change, and it would be by observing such change that we would reason that learning had occurred.[6]

This description of learning does little to advance our understanding of the concept. Its clauses are variously false, speculative, and ambiguous. It fails to distinguish between 'learning' and other mental concepts (e.g. deciding) or even occurrences such as taking a very strong dose of some drugs or being

hit hard on the head. It also rules out many everyday occurrences which anyone would be prepared to call learning.

It is obvious that learning does not always take the form of permanent behavioral change. We learn many things that we subsequently forget and we learn many things which turn out to be irrelevant and have no impact on our behavior, much less effect a permanent change. A change in a person's pattern of behavior may, given certain conditions to be examined later, be evidence for the claim that learning has occurred, but such evidence, by itself, is neither necessary nor sufficient.

The notion that learning is either "a rearrangement of neural paths" or "an alteration of the state of the central nervous system" is highly speculative. While it could be the case that every change in belief, tendency, capacity, sensation, or attitude manifests itself in some physical change in the brain, it is far from being established that this is the case, or that these purported changes are best described as rearrangements of neural paths. Even those researchers who are most optimistic about the potential contributions of cognitive and neural science to our understanding of human capacities are dubious about the explanatory power of these connections. Howard Garder, in his review of theories of mental representations, attributes to Jerry Fodor, "strong reservations that the 'natural kinds' of the nervous system will map in any interesting way onto the 'natural kinds' of psychological or mentalistic explanations."[7] But, even if it is true that changes in beliefs, tendencies, or attitudes do cause (or are caused by, or are the same as) changes in neural paths, it is unclear that this would tell us much about learning. Other occurrences, like 'making a decision', 'having a dream', 'forming an opinion', or 'remembering something', might, for all we know, produce (or be the same as) the same sorts of neural changes. More importantly, even if all these assumptions are granted, even if we assume that there is a set of arrangements of neural paths which correspond uniquely with states of 'having learned', the existence of such connections seems utterly irrelevant to education concerns. People have taught and learned for much longer than they have known about neural paths and it is not clear how "neural path" explanations, even if they were established, would help people do it better. Educators deal with people at the level of social interaction and, unless made obsolete by new techniques in neurosurgery, are likely to continue to do so.

Suggestions that learning is an "internal change of consciousness" or "an internal mental change" are far less clear and specific but no more informative. If such changes are to mental states like sensations or 'thoughts as experienced', the claim is patently false for many instances of learning. People learn many things, including rules of grammar and bad habits, without necessarily being aware of having learned them. If "change in consciousness" is thought to include unconscious or subconscious change, we start to get into rather murky waters. Such changes, for all we know, might be going on all the time. But if unseen, unfelt changes in non-conscious states were 'what we really meant' when we used the term learning, sophisticated psychological procedures would be required to identify instances of learning, and they are not.[8] (We have seen that change in

behavior, by itself, is not a reliable criterion.) It does seem that learning necessarily involves some kind of change but Brookfield's description of learning does not usefully identify what kind of change. Its various clauses are neither specific enough to differentiate learning from other human capacities nor general enough to admit perfectly ordinary examples of learning.

My point here is not that we can criticize any particular definition or description of the nature of learning, but that the commonly used definitions bring confusion rather than clarity to our commonsense notions of what it is to learn. It is striking that 'learning' is often taken to be either "change in consciousness" or "change in behavior," or both. Yet the same writers who employ these conceptions often go on, as Brookfield does, to write about "effective learning," "an act of learning," "learning in an active sense," "learning behaviors," and "learning outcomes." If one substitutes "change in consciousness" or "change in behavior" for "learning" in these expressions, the results are largely unintelligible. There is clearly something wrong with the conceptions, or with the phrases in which "learning" is employed, or with both.

This may be regarded by theorists and researchers in the field of education as rather depressing. While it may be possible to engage effectively in practices which are intended to promote learning without having any clear and explicit definition of learning, it is difficult to imagine a coherent and useful program of research based on such a poorly developed central conception. When the apparent incoherence of such widely used terms as "learning behaviors" is recognized, confusion seems complete. My suggestion is that we ought to examine our conceptions of learning in a critical light and construct a more coherent conception. Although space will not permit it in this article, a revised conception could then be used as an instrument for testing the adequacy and utility of phrases like "learning behaviors" and "learning outcomes." In order to establish a perspective from which we can reflect critically on conceptions of learning, a few comments about four important conceptions of mind may be useful.

II. Mental Concepts

The last ten years have spawned a rash of recountings, reconstructions, and deconstructions of epistemology and the philosophy of mind. Many of these treat the topic with a degree of sophistication and some sympathy for the historical factors which gave rise to conflicting views about these issues. The ensuring account contains no such subtleties, but rather is intended to draw attention to a few significant features of some of the important positions in the development of western philosophy. There are many differences and ways of expressing the differences between beliefs about the nature of minds. One, which is useful for the purposes at hand, is the extent and manner in which the mind is believed to 'structure' thought.

Plato raised the question in what has come to be called the *Meno* paradox.[9] Socrates, as Plato's protagonist, asked how we can ever learn a new concept,

for example, the concept of virtue. If we do not know what it means, how will we look for something about which we know nothing? How would we recognize the 'correct' meaning, unless we already knew what the answer was? But, if we already know what it means, we have no need to learn. Socrates suggested the solution that we must already have the concept in our minds and that experience and teaching can bring us to recognize it. The mind is seen, according to Plato, as already having the concepts which were understood to be the true form of reality. Learning was thought to be recollection. The structure of the mind was thought to be inherent and a reflection of the true structure of reality of which the material world was an approximation.

The British empiricists, writing in the 17th and 18th centuries, viewed the mind as a blank slate or a wax tablet upon which experience makes impressions.[10] Apart from some very primitive capacities to compare the impressions made by properties of objects, the mind was thought to be without structure, merely a receptacle which is gradually filled with data gained through the senses. People were thought to learn about the world inductively, building up an accurate representation out of bits (atoms) of sensory input.

Kant rejected the notion that all our knowledge is generated inductively, a notion which had troubled Hume extensively, although Hume had suggested no alternative.[11] Kant argued that we have no direct, unmediated knowledge of the world, that our knowledge is of the relations between ideas or 'appearances'. He argued, on the basis of facts about the subject/predicate structure of human languages, that there are only certain relations which can be recognized or expressed. Relations like causality, identity, and quantity form a set of innate concepts which structure our thoughts and determine the limits of what can be learned.

Wittgenstein posed an alternative conception of learning and the 'structures' of the mind. *Philosophical Investigations*, the book in which he developed the central issues which concerned him for the latter half of his life, begins with a critique of an inductive account of language acquisition.[12] He demonstrated how no such account can explain how people learn language. However, he did not accept a Kantian account of innate concepts based on categorical distinctions between kinds of statements. Rather, Wittgenstein emphasized the flexibility of language and the variety of purposes to which it is put. He argued that our concepts and beliefs form interconnected, mutually reinforcing nets, sometimes referred to as "language games," which are generated in social practices. Sentences and words take their meaning from their use in public discourse. What goes on in people's minds is determined and made possible by the use of language in culturally developed institutions. On this account, mental concepts such as 'understanding', 'seeing', and 'learning' are used to attribute propensities or capacities to act, based on the context in which the actions could, or would, take place. The mind ceases to be thought of as a 'thing', or some sort of 'inner space' where

certain sorts of operations happen, but rather is used as part of a way of talking about the sorts of things people can or tend to do.

The question Socrates asked continues to haunt educators.[13] While Plato's conception of mind, in its classical formulations, seems somewhat incompatible with modern sensibilities, the other models continue to influence our conceptions of learning in important ways. The work of Piaget, for instance, has been referred to as "developmental Kantianism."[14] Skinner's behaviorism can be seen as combining an extreme version of Wittgenstein's emphasis on the need for public criteria of mental verbs with an atomistic inductivism derived from the empiricists.[15] Any conception of learning must take some position with regard to these or with competing conceptions of mind, whether the position is made explicit or not. There is something important about each of these exemplars or they would not have had, nor continue to have, such a grip on our ideas and theories. However, many of the assumptions and distinctions which served to support empiricist and Kantian conceptions of the mind can no longer be taken seriously. In particular, it is no longer plausible to maintain that there is a clear and sharp distinction between description and interpretation, a distinction which is essential to empiricism and to its successor, positivism. Nor is there a categorical distinction between analytic and synthetic statements, without which Kant's picture of the mind is elegant, but uncompelling. It is my contention that the confusions identified earlier with the 'prevailing conception of learning' are related to the inadequacies of empiricist and Kantian accounts of the mind as an 'inner space' in which are performed certain operations as labelled by 'mental' concepts.[16]

III. A Social Conception of Learning

It is not my intention to argue that, of the four possible conceptions of mind, only Wittgenstein's remains plausible and should, therefore, be adopted as it stands. The following account of a social conception of learning is simply an attempt which has been informed by Wittgenstein's critique of traditional conceptions of mind and is useful for thinking about education and educational research.

Learning is an innate capacity of sentient beings.[17] At least down to the level of earthworms, all creatures are altered as a result of experience to some degree and under some conditions. Human beings differ from other forms of life (in part) by being able to make plans about what to try to learn. Thus, people learn intentionally (because they try to) and incidentally (as all sentient beings do). Not that we can draw a sharp distinction between these two kinds of learning for we cannot. For example, we would be hard pressed to identify a child's first intentional efforts to learn. There are, however, some relatively clear examples of either intentional or incidental learning, some discussion of which may illuminate the importance of 'purpose' to the concept of learning. But first, it is worth attending to the notion of a 'result' as it is used in the phrase "result of experience."

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The English language, and other languages, contain verbs which are used to refer to activities, and verbs which are used to refer to 'results' or 'outcomes' of activities. The activity of 'competing' is associated with the successful result, or achievement, 'winning', and the failure, 'losing'. The activity of 'attending' is associated with the result, 'noticing'. 'Studying' and 'practicing' are both activities related to the result, 'learning'. Not all of these activity/outcome relationships are parallel, however. While one must be competing, in some sense, in order to win or lose, and there must be some possibility of winning or losing in any context in which we would say someone is competing, no such tidy relationship exists between some other pairs. Consider the relationship between 'practicing' and 'learning'. People often practice in order to learn: for instance, one can practice a piece on the piano in order to learn it. But one can also practice scales in order to keep one's fingers limber. And, it should go without saying that we often learn without practicing: for instance, by reading a book.

The concept of studying is more closely connected to the concept of learning. If it were said that Helen was studying without intending to learn anything, the meaning would be rather unclear—perhaps that Helen was fiddling with her books because she was bored and restless, or was preparing for an exam in a course which she thought was useless? Any ordinary use of the verb 'study' seems to refer to an activity undertaken with the intention of learning something. But the other half of the relationship does not hold, for learning may also occur with no preceding activity of studying.

As an aside, it may be noticed that many 'result' concepts can be used to refer to activities in which one can be engaged. In response to the question, "What is your husband doing?", it is perfectly sensible to respond, "Learning to use the food processor." Parallel responses could be, "Losing our money at the racetrack," or "Organizing the broom closet." In each of these cases, an activity is referred to by its expected outcome. Writers in the field of adult education often use 'learning' to refer to 'activities intended to result in learning', without regard for whether the intended result is achieved. Thus, Patricia Cross cites a table which distinguishes between "learners" and "would-be-learners" when referring to "those engaged in trying to learn" and "those who would like to be so engaged."[18] Alan Knox writes about "learning effectiveness" as if learning is an activity in which one can be engaged with better or worse results while considerations discussed earlier suggest that learning *is* a result.[19] While many such constructions are mere conveniences, their uncritical use has resulted in some of the confusions which Brookfield attributes to the "gerundive nature" of learning.

Though some of the relations between 'task' and 'result' verbs are untidy, they are useful in illuminating the different ways in which purpose enters into claims about learning. When learning is the intended outcome of an activity, its occurrence is an achievement (something like winning). When learning is incidental, a by-product of an activity engaged in for other purposes, it is simply a result (like noticing). However, this is not to say that incidental learning does not serve a purpose, but merely that it does not happen *on* purpose. The distinction is between 'purpose' as the intention of the person

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who learns, and 'purpose' as a furtherance of what is viewed as rational, good, or desirable.

Generally speaking, the changes that we recognize as instances of learning are changes which can be understood as serving a purpose. Even 'mindless' learning such as the development of a disposition to salivate at the sound of a bell, serves a purpose as long as the environment is relatively stable and no one changes the rules of the game. This point can be demonstrated with another animal example. If hungry rats are placed in a maze, all sorts of activity is exhibited, but none of the activity is recognized as evidence of learning until a pattern arises which can be understood as functional in serving the rats' purposes, that is, in procuring food. If the rats engaged in activity which was, in our eyes, aimless, or repetitively self-defeating, we would be hard pressed to understand it as 'learned'. Of course, the finding of food may not be in the best interests of the rats, all things considered: the rats which are most successful may be used in an awful experiment. Nevertheless, the finding of food seems like a rational objective for hungry rats to pursue, and learning maze routes is rational given these ends. Obviously, I am not attributing a developed sense of rationality to rats. The necessary 'rationality' is a function of the fact that the rats' actions make sense given our beliefs about what they 'want'.

Judgments about instances of learning rely on contextual factors including the comprehensibility of the learners' purposes and the rationality of their expectations given previous relevant experience. [20] Such judgments are not made on the basis of knowledge about the mental or neurological states of rats or of people. Rats are taken to be hungry because they have been deprived of food and because, if shown food, they eat it. Judgments about people's motivations and beliefs, and about what is rational for people to care about and believe, are 'built into' the concept of learning.

The connection between rationality and learning is also displayed in the epistemological force of many claims which employ the term 'learning'. In many cases, the phrase 'came to know' can be substituted for 'learned' with no change in meaning. This is significant in that 'knowing', in contrast to 'believing', implies that the relevant claim is held 'on the basis of reasons' or is 'rationally assertable'. On the other hand, it would be unusual to refer to cases of repression, or of sublimation, as instances of learning unless it is being pointed out that these can be understood as purposive changes. As can be seen, attributions of learning are judged against a background of knowledge about how individuals act, and should act, in any given context.

Explanations of how we come to have such knowledge are worth examining. Traditional views have suggested that we know how other people think by examining the relation of our own sensations to our own actions and extrapolating that the same is true for other people. What is most certain is our own experience. While we may be wrong about facts pertaining to the world, including other people, we cannot be wrong about what we believe, think, or feel. Accordingly, language is taken to be a public representation of inner thoughts, and truth is understood as a relation of correspondence

between ideas and the world. Virtually nothing about this account has received wide acceptance from philosophers writing in the latter half of this century.

What Wittgenstein argued was that the knowledge about motives, beliefs, thoughts, feelings, and so on, is part of what is learned when a person learns a language.[21] We learn what anger is, for example, by coming to understand the context in which the word 'anger' is used. Children learn what anger is by being told, "Don't be angry now," or, "You'll have to control your temper," and not by unmediated introspection. Use of the word 'anger' creates a category of human emotion rather than merely providing a label for some pre-existent category. It is the use of language in social context which allows us to experience the distinctions between anger and fear, jealousy, disgust, irritation, indignation, or moral outrage. The sophisticated range of emotions, values, and beliefs which humans have is not so much described by language as it is created by language used in social intercourse. Human capacities are what they are, not only because human brains are what they are, but largely because of the complex and sophisticated tools provided by human languages and their role in social practices. On this account, the mind and mental concepts (including 'learning') are understood as 'social constructs' which are used in predicting, understanding, judging, and explaining human action.

The role of agreement across the membership of communities in their social practices, including their use of language, plays a vital role in Wittgenstein's analysis. Learning from other members of the community is how this agreement comes about. If it is said that a person has learned to speak a language, apply a rule, do long division, or sing a song, the criterion for accepting the claim is that the person agrees (substantially) with other members of the community in performance and/or result. If learning is understood as a relation between an individual and members of the community, any hope of finding it 'inside an individual's head' must be regarded as misguided.

To summarize the conception: learning is one of many words which are used to talk about what a person (or other creature) is able or likely to do. 'Learning' implies that the person has changed and that the change would, under certain sorts of conditions, be manifest in the person's actions. (Please note the distinctions between this claim and the claim that learning is a 'change in behavior'.) Further, the change is a result of experience, that is, it can be understood as following rationally from the relevant experience(s). While the change may or may not be sought intentionally, it is an increase in capacity or improvement relative to some standard or goal. Judgments about learning are made against a background of knowledge about people's intentions and beliefs. Such knowledge is generated largely by the acquisition of language in the context of public discourse.

IV. What Does this Mean for Adult Education?

The acceptance of the conception I have begun to elucidate would not, by

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itself, bring about radical changes which are completely alien to current educational research and practice. Rather, it would tend to focus our attention on certain sets of problems and cause us to regard others which are not taken seriously as being poorly formed or irrelevant. Although space does not permit any detailed mapping of the proposed conception onto existing approaches to adult education, some very broad points of similarity and contrast are obvious. It is generally consistent with, for instance, Freire's ironic dismissal of the "banking approach to education" and the "specialization of consciousness,"[22] as well as Dewey's integration of the "subjective" and "objective" conditions for learning.[23] It is generally incompatible, however, with the work of writers who propose scientific theories in order to enlighten us about the nature of learning and to provide the technologies by which learning is supposed to take place more efficiently. Almost all such theories involved distortion of the concept of learning to the extent that it no longer resembles the shared public concept in which the practical problems of educators are framed.[24]

Generally speaking, adoption of the proposed conception would be consistent with the recognition that psychology provides no privileged standpoint or methodology for the study of learning. All fields of inquiry which shed light on our social relations, social practices, and institutions would be recognized as useful to the extent that they help us to understand the purposes and the contexts which define 'learning'.[25]

Learning would be understood to be less clearly related to individual states of consciousness and more clearly related to social practices and culturally generated ways of life.[26] It would be seen as part of a vocabulary by which human actions are understood and interpreted as well as predicted and explained. Because use of the concept of learning involves interpretation and judgments about rationality, it would be recognized that any causal account, couched exclusively in terms of physical entities and events, can only be a partial account, and will fail to capture much of the term's significance.

Because causal accounts of learning can only be partial accounts, the failure of educational researchers to show consistent and convincing correlations between 'learning', as indicated by assorted 'outcome measures', and educative 'processes', as categorized by the behavior of teachers or people who are trying to learn can be seen to be a problem of inadequate conceptualization, not a problem to be overcome with additional research grants and increasingly sophisticated methodologies. But this should not be regarded as a reason for dismay because if it were possible to determine what people would learn on the bases of any given experience according to deterministic, causal laws, it would be possible to determine people's beliefs, values, and actions. Educators would no longer organize situations in order to help or encourage students to learn; they would determine what their students came to believe and to do. Fortunately, no theory of learning seems to be in immediate danger of threatening our concept of the autonomy of the self, and (at least partly) because such theories can only be partial accounts, no such theory can succeed.

The notion of autonomy and the related notion of self-directedness have been important in discussions about adult learning. Adoption of the conception of learning for which I have argued would lead to an emphasis being placed on the differing social contexts of adults and children, rather than extensive reliance on hypothezied states of psychological development. What characterizes "self-directed learning" is that a person undertakes an activity with the intention of learning something. For such a decision to count as being autonomous, he or she must be responsible for it. Various conditions affect the degree to which a person is considered responsible for an action. Such conditions include: that the action is free, in the sense that it is not the result of coercion or compulsion; that it is informed, in that the individual has some idea what is at stake in possible alternative courses of action; and that the individual has some relatively stable set of values or purposes. These are the sorts of requirements which are involved in attributions of responsibility about individuals' political, contractual, and other decisions. They are also closely associated with prevailing conceptions of what it is to be an adult in our society. So, while it is hardly the case that the age of majority is a necessary condition for individuals being able to plan their own learning projects, it is consistent with our other socio/political and legal judgments that decisions about learning by adults have a different status than similar decisions by children. One could say that there is a presumption that adults undertaking activities (of certain types) are autonomously pursuing learning whereas the presumption with children is that their decisions are undertaken under conditions of reduced autonomy.

There are also, of course, other differences between the lives of adults and children in our society which affect the purposes for which they try to learn and the conditions under which learning takes place. The need for comprehensive initiation into a broad spectrum of social practices and institutions outweighs many alternative goals for children. Adults are likely to pursue more specific purposes according to an established set of values and interests. Many of these distinctions have been noticed and commented upon by adult educators but often as matters of peripheral concern, matters which affect 'the context of learning' as opposed to 'the process' itself. According to the conception for which I have argued, questions of purpose and social context are the questions which define learning. Differences between the purposes and social contexts of adults and children can be understood as providing reasons for distinguishing their respective activities, and the intended results. This is not, of course, an argument that such a distinction is of great significance to the field of education but merely identifies the criteria by which such distinctions are to be drawn.

Another effect of the adoption of the proposed conception of learning involves the use of 'theory' in educational practice. Prevailing conceptions tend to embody a notion of theory as the responsibility of psychologists who discover the 'principles of learning' which practitioners ought to follow if they wish to be successful. When 'learning' is understood to be defined by purpose and context, it is immediately apparent that no generalized, 'de-contextual' theory of learning can provide a coherent framework for the study of learning. The place to study purpose and context is, obviously, in context.

When one ceases to look for neurological states and mental processes and thinks instead of reasons, purposes, and values, the need for sensitive and intelligent practitioners, rather than theories with high predictive power, seems apparent.

Such considerations do not deny a role for research into learning and activities related to it. They do suggest that research ought to be directed at developing ways of 'seeing' situations rather than principles which can be applied to practice. Research can provide alternative ways of understanding the social practices and institutions which form the context in which learning takes place. Some of these 'alternative ways' may be useful in improving practices, not only in the sense of leading to more efficiency in achieving desired goals, but also in clarifying and re-evaluating the purposes of those who are trying to learn about something. Understanding a wide range of these alternatives is a large part of what it is to be a sensitive practitioner. Research may also illuminate the criteria or standards which are implied by the phrase 'having learned something' according to the nature of that which has been learned.

Conclusion

In conclusion, I would like to note that this list of quasi-predictions about the effects of adopting the proposed social conception of learning is necessarily incomplete and somewhat vague. The conception itself has only been sketched out in these remarks and its adoption would necessitate it being reformed and developed in practice. It does, however, provide a philosophical background which could clarify and illuminate some existing traditions within the field which have, to a certain extent, been marginalized in North America. Briefly, it suggests that learning is not simply something that occurs inside people's heads; it is part of a way of talking about what people can, could, or would do. It is grounded in knowledge of their purposes and expectations as displayed in action and social intercourse. The value of this conception is threefold: it explains why psychological theories alone cannot be satisfying as accounts of learning, thereby preventing unrealistic expectations; it re-orients our thinking about some recalcitrant issues like the distinction between adult education and the education of children; and it makes explicit the manner in which socio/political and cultural questions are centrally involved in attributions of learning.

While, like all conceptions of learning, the social conception is based on certain beliefs about the nature of minds, it is not based on unsubstantiated empirical claims. Because it is grounded in a general understanding of human action in a social context, the conception can be informed by, and useful in, the variety of forms of research which are employed in the field of education. In keeping with strong traditions in the field of adult education, it is useful in maintaining an emphasis on the individual as a member of cultural, social, and political communities.

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Reference Notes

1. James E. McClellan, *Philosophy of education* (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1976), 55-6.
2. Donald Davidson argues that there can be "no strict deterministic laws on the basis of which mental events can be predicted and explained" and that events as described by mental concepts "resist capture in the nomological net of physical theory." See "Mental events," reprinted in *Essays on actions and events* (Oxford: Carendon Press, 1980), 207-8.
3. Ludwig Wittgenstein, *Philosophic investigations,* trans. G. E. M. Anscombe (Oxford: Basil Blackwell, 1958), paragraphs 143-202.
4. Stephen D. Brookfield, *Understanding and facilitating adult learning* (San Francisco: Jossey-Bass Publishers, 1986), 46.
5. *Ibid.*
6. *Ibid.*
7. Howard Gardner, *The mind's new science: A history of the cognitive revolution* (New York: Basic Books, 1985), 82.
8. See Jerry Fodor, *Psychological explanation: An introduction to the philosophy of psychology* (New York: Random House, 1968), 77-86, for an example of such a non-conscious change in 'mental' processing. Fodor shows that competent speakers of a language 'hear' sentences differently than non-speakers in that they parse according to meaningful language units rather than level of acoustic energy. Sufficient experimentation might show that parsing is a necessary condition of having learned a language. However, it can be part of what is meant by 'having learned a language'. Knowing a language means understanding and being able to follow certain rules, being able to connect sounds with their correct references 'in the world', and many other things. The best developed psychological theory cannot establish those rules or those references.
9. Plato, *Meno* (New York: Bobbs-Merril, 1949).
10. While these notions are common to all the empiricists (especially Locke, Berkeley and Hume), the view was first framed by John Locke in *An essay concerning human understanding* (1690), especially secs. 23 and 24. Selections from the three major empiricists, including Locke's *Essay,* are found in *The empiricists* (Garden City, N.Y.: Anchor Press, 1974).
11. Immanuel Kant, *Prolegomena: To any future metaphysics that will be able to come forward as science,* trans. Paul Carus, and rev. James W. Ellington (Indianapolis: Hackett Publishing, 1977), 3-7.
12. Wittgenstein, *Philosophical investigations,* paragraphs 1-12.
13. For examples see: Carl Bereiter, "Toward a solution of the learning paradox," *Review of Educational Research* 55 (1985): 201-226; Donald A. Schon, *Educating the reflective practitioner: Toward a new design for teaching and learning the professions* (San Francisco: Jossey-Bass Publishers, 1987); or Kenneth A. Strike, *Educational policy and the just society* (Urbana: University of Illinois Press, 1982).
14. Strike, *op. cit. Educational policy,* 62.
15. See McClellan, *Philosophy of education,* 5-9, for an account of the

relationship between 'metaphysical' behaviorism and Skinner's 'pedagogical' behaviorism.

16. By far the most famous example of this line of criticism is Ryle's criticism of the Cartesian conception of mind as "the ghost in the machine." Ryle, however, unlike Wittgenstein, believed that mental concepts were analytically reducible to dispositional predicates. See Gilbert Ryle, *A concept of mind* (London: Methuen, 1949).

17. Many parts of this account are borrowed from McClellan, *Philosophy of education.* Please note that 'intentional' is used throughout this account to refer to the intentions of the person trying to learn. The relations between teaching and learning, and the teacher's intentions are outside the scope of this paper.

18. K. Patricia Cross, *Adults as learners* (San Francisco: Jossey-Bass Publishers, 1981), 209.

19. Alan B. Knox, *Adult development and learning* (San Francisco: Jossey-Bass Publishers, 1977), 563.

20. Our concept of learning is related to the notion of 'rational objectives' which guarantees that statements about 'learning' cannot be reduced to purely physicalist language (facts about neurological events and brain states or facts about behavior) without changing their meaning. Hilary Putnam argues convincingly that 'rational' cannot be eliminated or replaced by non-normative words or technical decision procedures. See her *Realism and reason: Philosophical papers, Volume 3* (Cambridge: University Press, 1983), 148-54, and 245-7. Putnam's reasons are explicitly linked to Davidson's argument cited in note 2.

21. See David Pears, *Ludwig Wittgenstein* (Cambridge, Mass.: Harvard University Press, 1986), 149-178, for a more complete introduction to this notion.

22. Paulo Freire, *Pedagogy of the oppressed,* trans. Myra Bergman Ramos (New York: The Seabury Press, 1970), 57-74.

23. These notions permeate Dewey's extensive publications. One relatively concise account is offered in *Experience and education* (New York: MacMillan, 1958), 23-52.

24. A more detailed examination of this point is given in Michael Chapman, "Inner processes and outward criteria: Wittgenstein's importance to psychology," in *Meaning and the growth of understanding,* ed. M. Chapman, and R. A. Dixon (Berlin: Springer-Verlag, 1987)

25. Charles Taylor's description of the human sciences in *Philosophy and the human sciences* (Cambridge: University Press, 1985), is useful in showing how certain actions are "constituted" by the net of concepts and institutions in which they are a part. One of his examples is of "voting," an action which is only comprehensible against a rather complex knowledge of social context.

26. Ference Marton's, "Towards a psychology beyond the individual," in *Psychology in the 1990's,* ed. K. M. J. Lagerspetz, and P. Niemi (North Holland: Elsevier Science Publishers, 1984), can be understood as 'expanding' our conception of psychology to include socio/cultural and philosophical concerns and thus, is moving in a similar direction.