

Theorising adults, theorising learning

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The irony of all theorizing is its propensity to generate, not an understanding, but a not-yet-understood. (Oakshot, in Muller, 2004, p. 1)

Adult learning theory is one of the central domains of lifelong education research. Anyone coming to the study of adults as they adapt to and change in life, work and education will encounter theories such as 'behaviourism', 'cognitive psychology', 'humanist psychology', and 'neuroscience', usually expanded to include adult-oriented variants considered under headings like 'andragogy' and 'transformative learning' (Illeris, 2018). Students of adult learning theory will also find that 'context' has been recognised as a key factor for understanding this kind of learning, with critical and situated accounts highlighting that learning is not an idiosyncratic event but is something that in an important sense goes beyond the individual adult (Merriam, 2015). Perhaps the greatest challenge to date for comprehending adult learning is the radical contextualism of 'post-human' theory which decentres the human in favour of a thoroughly relational account that gives salience to all entities (not just humans) in our lived world (Fenwick & Edwards, 2010). A question raised by a survey of such theories is whether adult learning theory is developing into a body of knowledge that can reliably inform the work of those who take responsibility for the learning of others. This question is important in an environment where there is substantial interest in what learning can bring to adults and their societies. Governments, transnational organisations, think tanks and corporations create policies and platforms concerned with what can be achieved through adult learning in community, vocational, professional and higher education settings. Yet it is not clear that there is a coherent understanding of adult learning that can be brought to bear in this environment. One way to look at this situation is offered by Wittgenstein's (1958) insight into how (at least some) philosophical problems are produced when similar-seeming questions are assumed to refer to essentially the same issue. His famous notion of 'family resemblance' enters here. Once a big problem (question, issue) is revealed as a concatenation of fundamentally different problems, then serious enquiry can bypass the tangle and attend to what can be fruitfully researched. Our question in this editorial is whether 'learning' can be considered in this way – as a concatenation of different concerns that are gathered under this heading but refer to quite different things. We look at some key contributions to adult learning theory to see if the domain can be viewed in this manner. We consider four groups of theories in particular to determine whether they do indeed investigate the same sort of thing. If they do not, and something more akin to 'family resemblance' holds these theories together (in articles and books), then a question we are left with is what are the implications for lifelong education research. We conclude on the hopeful note that adults appear to escape total comprehension by existing learning theory even if individual members of the learning theory family do shed a glimmer of light of the phenomenon.

Group 1: Scientific approaches: It is a commonplace to commence stories of learning theory with the discoveries of American behaviourism. What is clear in the development of these theories is the conscientious application of the scientific program envisaged in the 1600s by Bacon. This early philosopher of science was among those who articulated the notion of experimentation as a way to produce knowledge. He wrote, 'the nature of things betrays itself more readily under the vexations of art than in its natural freedom' (in Pestic, 1999, p. 81). Accounts of behavioural investigation present striking examples of the application of the method of vexation. The research undertaken by Watson and followers involved carefully designed and executed experiments such as the infamous 'Little Albert' study (Watson & Rayner, 1920), employing Pavlov's theory of conditioning (derived from research on dogs) to induce fear of a selected stimulus (rats) in a young child who had

reportedly been comfortable with animals (including rats) prior to the experiment. This research programme revealed that associations can be induced where none were before. Skinner (1953) is another oft-cited contributor to this programme. His research into the behaviour of pigeons when placed into a structured environment showed that living organisms ('operants') are oriented to explore and avail themselves of opportunities inherent in conditions. The latter can be manipulated such that the operant will find its way to behavioural change in accordance with the design of the environment. These theories tell us that we can induce change in a methodical way, although such 'learning' was restricted to links made between observable conditions and behaviours.

Other psychologists were not content to limit the method of vexation to purely observable factors. Cognitive scientists found that through careful experimental design, hypotheses about mental processes could be tested, with inferences about those processes made possible through observations of conditions and behaviours. Perceptions, working memory, long-term memory, anticipation and executive function emerged as measurable components under appropriate conditions (Smith & Ragan, 2005). The small vexations introduced in these experiments expanded the range of learning phenomena from associations through to feats of memory, information processing, and responding to and changing conditions. Learning theorists like Gagné, Crawford and Glaser directed these insights to training problems such as those encountered by the US military during the Cold War when 'man-machine systems' had to be designed for implementation without time for humans to actually practice on the equipment. Cognitive learning theory offered a solution to the need for large-scale training to specifications formulated in advance of application. Contemporary neuroscience allows us to visualise which parts of the central nervous system are activated when humans are challenged to anticipate stimuli and effect responses.

While there has been a shift toward ethical experimentation in this discipline (linked with the *Belmont Report* of 1976), behavioural, cognitive, social-psychological and neuroscientific research still relies on creating conditions based on hypotheses to see what happens when humans are subject to them. What is counted as learning is what is previously conceptualised as learning, and those conceptualisations are only what is permitted within the paradigm operating in the field. While the treatment of scientific approaches offered here may seem dismissive, adult educators can profit from the discoveries it has made, especially where associations need to be dissolved or built, or memories and patterns of effective response need to be acquired. Adults *can* be induced to think and behave in certain ways, and if that is what an educator wants to achieve, then some well-tested tools are available.

Group 2: Humanist approaches: Quite a different take on learning arrives with humanist psychology and related adult learning theory. To return to Bacon's insight, a significant change evident in these approaches is that observations of humans in their 'natural freedom' rather than in their vexation become the mode of knowledge creation. A different paradigm is in play here and along with that, completely new conceptualisations of learning. Rogers and Maslow among others, start out with the idea that human individuals possess a deep, intrinsic significance that, in dialogue and tension with everyday life, develops and manifests in the world. 'Learning' is this process of coming to be. Only a tenuous link remains with the scientific approach. Indeed, a common complaint about humanist learning theories is that they are not based on science in the first place (perhaps not even in the sense of awaiting the revelations of humans in their natural freedom), and that they are not amenable to experimental testing. Knowles' (1980) andragogical theory presents an example of a humanist understanding of adult learning that is widely criticised for flaunting scientific criteria. Adults can be characterised as self-directed in their learning, practical, interested in meaning. *What* is learned is in a sense besides the point. It could be, at one moment, to associate different stimuli

but at another, to acquire a body of knowledge, resolve a difficulty in a relationship, or realise the self. Knowles argues that cycles of redundancy of bodies of knowledge are, in modern society, becoming more frequent to the point where the individual adult outlives a cycle. This sociological observation is turned back to the human individual to demonstrate the need for adults to fall back on their own resources and take the initiative in relation to learning and the world. It becomes imperative for the individual to acknowledge inner motivation and strength to thrive in contemporary life and society.

Jack Mezirow shifted adult learning theory from an overtly philosophical humanism to a more intricately conceptualised platform that intersects with and draws from cognitive psychology, symbolic interactionism and critical theory among others. Like Knowles, so-called 'transformative learning' theorists are concerned to delineate adult learning as such, but instead of positing a set of principles they elaborate a developmental process that relies on recognition of psychological structures at different scales which can alter in incremental or more sudden ways, the latter 'meaning perspective transformations' emerging as the form of learning that is uniquely adult (Mezirow, 1991). It is the learning task of childhood to arduously build meaning perspectives from the materials of life and education. In adulthood, conditions can become novel or difficult enough to undermine the basis of these perspectives and threaten the individual with a more or less protracted crisis of meaning. Not all adults succumb to these kinds of change, and there are many ways to defer them. Meaning perspective transformations, while being structurally explicable are empirically specific to the individual and thus this kind of learning is not something that instructional designers or curriculum planners can reckon with. The meaning of transformation lies in the possibility of individuals becoming more tolerant, more open to difference, more comfortable with the complexity and contradictions of life. These 'outcomes' of adult learning cannot be intended, taught and assessed. As Cranton (2001) points out, the adult educator is valuable in this scheme as someone who is aware of the signs of disorientation, self-questioning and trial characteristic of perspective transformation, and present to the vulnerabilities of the adult transitioning from one system of meaning to another. The educator is a facilitator of that which is already underway and can only take shape in accordance with an inner logic. The educator is vigilant, wise and helpful, and is at pains to avoid preempting the nature of new horizons of meaning that coalesce for the individual from out of the disorientation of transformation.

Group 3: Contextual, social approaches: The third group of theories we consider strongly situates learning in a context such that the latter is intrinsically part of the question of what is adult learning. Marx and Engels had bequeathed a picture of the human as formed within a societal matrix, with human thinking, feeling and action ultimately derived from a given state of socio-economic development. The human individual's subjectivity may be experienced as unique but conforms to patterns given with the historical phase. Although different theories of contextual determination were produced, the basic idea that the human adult is a social by-product spawned theories of learning to account for ways individuals emerge from the matrix. These theories were not necessarily viewed as about learning. Rather, complex processes such as 'socialisation' and 'enculturation' were elaborated to describe this emergence. Via the refinements made to Marxian contextualism by the Frankfurt School sociologists, a generation of theorists brought critical perspectives to bear on the questions of adults learning. A prominent aspect of this kind of theory was the idea that characteristic changes associated with adult learning were related to tensions between constraining and oppressive structures, and individuals and groups seeking some level of autonomy. A range of adult learning researchers such as Hart, Inglis and Brookfield present accounts of adults learning that link learning with emancipation. Freire's work has been a powerful influence on the development of this form of adult learning theory. Brookfield's (2005) theory is social in its

application – learning is about recognising the constraints on freedom given with social conditions and formulating ways to transform both the lives of the oppressed and the conditions themselves (along with the attitudes and thinking of oppressors). Learning relates to the whole socio-economic system and overcoming oppression within it.

Some learning theories in this group place emphasis on the way context itself accounts for and figures in adult learning. So-called cultural-historical activity theory explains learning in terms of activity systems wherein human subjects and their concerns, resources, tools, and social organisation interact in distinctive ways. For instance, Engström's (2001) analyses of cases of contemporary learning portray complex environments wherein individuals, groups and organisational structures mutually adjust and change to produce learning. Another influential contextual theory was elaborated by Jean Lave and Etienne Wenger. They employed the tools of anthropology to examine groups bound by a culture of skilled knowing oriented to an occupation. Power dynamics, projects of membership and identity, acquisition of skills and knowledge, individual and shared purpose, were entwined in so-called 'social practices'. These revolve around occupations, social movements, everyday endeavours, and make up the texture of our lives, communities and societies. Lave and Wenger (1991) were interested in describing learning in such contexts and conceptualised it as a journey of the individual toward membership of a valued social practice. Through engagement with entry-level tasks prefigured in the archive of the practice, a 'newcomer' dwells in a liminal space of 'legitimate peripheral practice' from where they are progressively admitted to the more complex and characteristic work of the group. 'Learning' in this case is about building competence, but it is part of a bundle of developments that include identity making, group positioning, life purpose. Learning cannot be meaningfully separated from primary processes of participation and membership that are given significance in terms of the social practice.

Group 4: Post-human approaches: Contextual-social theories such as those sampled above reserve a special place for humans among the intricate environments from which learning emerges. While context is inevitably folded into the process, human suffering and emancipation, or adjustment, identity and competence, for example, are crucial signposts for determining what learning is. A decisive shift away from viewing learning as an essentially human concern is brought by post-human theories. For educators steeped in views of learning like those sketched above, a potentially jarring realization prompted by post-human perspectives is the notion that humans – individuals and groups – need to be decentred ontologically to approach an effective understanding of the world and its processes. If learning is taken as a topic within this intellectual milieu, then care needs to be taken to avoid the theoretical distortions introduced when human being and becoming is taken as a yardstick or reference point. Actor network theory (ANT) is an evolving field of work and thought that reorients inquiry to conglomerations of inter-related entities whose features are a function of the set of relationships that enable emergence and identity (Fenwick & Edwards, 2010). A key claim of ANT is that such conglomerations or networks can be considered 'actors', an idea that can be challenging for those who are accustomed to regard humans as the only true actors in the world. However, the arrogation of agency, purpose, and intelligibility to a subset of entities (humans) is an obstacle to realising our situation. Humans need to be 'put in their place' as Pickering (2010) might put it for research to have a chance of disclosing how things stand in relation to the phenomena lifelong education researchers investigate.

One interesting feature of the post-human education-oriented literature is its relative lack of reference to 'learning' as such. In contrast, the notion of education is taken up extensively. The reason for the comparative silence about learning is that the concept makes a number of assumptions about the human entity that conflict with the post-human ontology. Richard Edwards

(2010) explains that to take lifelong learning as the goal of education is to essentialise learning as a property of human objects. But such *a priori* constructs are inadmissible to the post-human project. Instead, lifelong education must be about responsible experimentation that minimises assumptions about what adults really are and should be. He wrote,

Perhaps, rather than a post-human condition of lifelong learning, we could enact a post-human condition of experimentation that embraces risk, responsibility and emancipatory ignorance. To suggest a future for education without learning and the knowing subject may seem strange. However, learning as a concept has evolved from the study of psychology which has at its heart precisely the centring of the human subject. In gathering lifelong learning as a post-human condition then, we could end up sacrificing the notion of lifelong learning itself, as it could be that the posthuman cannot be one of learning, lifelong or otherwise. Educational purposes would be around responsible experimental gatherings of things that matter. (Edwards, 2010, p. 15)

Post-human approaches such as ANT provoke adult educators to question the purposes of their practice. What are their assumptions about lifelong learners and lifelong learning? Are these concepts imagined as pointing to something universal that everyone possesses and that can be or should be deployed, perhaps as directed by social and economic policy? Questions like these prompt educators to be thoughtful about the point of education, which need not be tied to the idea of learning as such. Post-human approaches also raise questions about who and what is involved when we talk about learning. ANT, for instance, encourages educators to take into account the material components of learning situations, a perspective that may be useful when considering the powerful technologies shaping the lives of contemporary adults.

In short, our survey of selected adult learning theories indicates that different groups of theories offer fundamentally different conceptualisations of learning. Wittgenstein's analysis of overarching concepts like learning suggests we should be wary of supposing there is an underlying unity to the concept or that theories about learning tend to anything like a coherent science that could be applied by educators like those bodies of knowledge applied by engineers or biologists. Yet adults, with their rich experience and goals and complex processes of change remain, and Wittgenstein would certainly not deny that. For adult educators and learning researchers alike, the potential, complexity and creativity of adult learners is such that each new learning theory, whilst usually saying something new and useful about learning, does not supplant existing theories. Adult learning theory gets more crowded rather than drawing up in an orderly line from less to more true that the scientific mindset is anxious to observe. Adults learning do not constitute an object in the usual scientific sense, but rather appear to continually transgress the boundaries projected by learning theories. There seems to be an inherent waywardness of adult learners that thwarts the encircling tendencies of theory. This is a characteristic worthy of celebration in the midst of neoliberal regimes and what Bernstein (2001) called the *totally pedagogised society*.

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