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Heutagogy and developing capable people and capable workplaces: strategies for dealing with complexity

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Abstract

This paper suggests a theoretical rationale for innovative and dynamic approaches to learning and learning at work based on complexity theory, capability and heutagogy.

Complexity Theory

It still surprises me how determinism and rationalism continue to dominate the way in which we think about learning and work, the two key themes of this paper. In 1974 Fred Emery argued that there are two primary and competing paradigms related to learning. On the one hand, there is the view, based on the philosophies of Locke and Hume, that the world is a 'buzzing mass of confusion' for humans, that we cannot make sense of the world around us, and that we cannot make generalizations from specifics. In short we need to have someone codify our learning for us, wrap it up and present it in a digestible form. On the other hand, Heider's view which is quite the opposite and provides the basis for the idea that people in fact are quite efficient learners and it is we who do the learning on our own terms rather than in response to what we might be told. This is an important point that I will come back to later but, in short, I argue that there is a vast difference between knowledge and skills, and actual learning. We like to think that we can predict learning but we can't. Only the learner has control over this. While this might appear to be obvious there is little application of the notion in the way we think about learning and indeed the world of work.

Supported by the rise and rise of Newtonian physics, what has become known as modernism has held sway for about three centuries in terms of how we look at learning and how we organize educational/training systems. The same competing paradigms, with the modernists again dominant, apply to the way we think about the world of work. The post-modernists have provided a significant challenge to the modernist view since the middle of the twentieth century, particularly in the social sciences. There is a healthy debate going, particularly in the academic and research literature, about which might be the right and which horses are for which courses. One of the weaknesses of this challenge to the modernist paradigm and consequent resistance to change has been the lack of a strong and coherent theory that can support this emerging and alternate view. Complexity theory provides an exciting and fascinating prospect as a candidate for questioning the rationality of modernism. In fact there is now a significant literature examining complexity theory in relation to many disciplines in both the physical and social sciences.

Complexity theory is concerned with complex systems and their behaviour over time (Rosenhead, 1998) and how coherent and purposeful wholes emerge from the interactions of simple and sometimes non-purposive components (Lissack, 1999). 'At its most humble, it attempts to explain the "big consequences of little things" (Phelps and Hase, 2002). Complexity is interested in dynamic systems which are seen to change in either in predictable, regular ways or in unstable, unpredictable ways (Rosenhead, 1998). While there is nothing new about the idea of unstable and stable behaviour in science it is the notion of chaos, phenomenon that cannot be predicted, in complexity theory that is important. Some of the key postulates of complexity theory are (Phelps and Hase, 2002, pp 209-510): the idea of open, non-linear systems; that change is emergent, self-organised, adaptive and dynamic, occurring through a process of bifurcation; cause and effect are not closely related in time and space; similar behaviours may not produce the same results; inherent unpredictability; and the importance of agent interaction.

That the future is essentially unknowable in complex systems and the notion of creative disorder have interesting implications for the way in which we might think about learning and work. Some of these are: the dynamic nature of learning in that people learn when they are ready not when the curriculum dictates; uncertainty about content and the importance of process; the need to access tacit learning; intuition; the difference between the acquisition of knowledge and skills, and actual learning; double loop learning to modify mental models; the importance of relationships and interaction; the ability to recognise and be open to serendipity, coincidence and accident; being open to knowing rather than emphasizing what we know; persuasion, argument and critical thinking; diversity and agility of thought; and the ability to cope with ambiguity and competing ideas.

Complexity theory then provides an ontological basis for challenging some of the more traditional approaches to learning and work, and learning at work. Before moving on to look at some of these challenges in more detail I need to pose a complex issue without debating it to the depth it deserves. Instead of seeing modernism and post modernism as competing paradigms complexity could also open the door to recognizing that they can, despite the ontological differences, live side by side. There is a need for the rational, the certain and there is a need to recognise the unpredictability. In understanding learning, as we shall see, we need them to coexist.

Capability

The notion of capability was conceptualised in the UK in the mid 1980s as a response to the need to improve the capacity of British organisations to compete in a shrinking marketplace. It had been recognised that globalisation and all its sequelae were creating a different kind of workplace where people needed to be more than just competent in order for them and their organisations to survive in a very turbulent environment. The world has become no place for the inflexible, the unprepared, and the ostrich with head in sand, and this applies to organisations as well as individuals. Capable people are more likely to be able to deal effectively with the turbulent and complex environment in which they live by possessing an 'all round' capacity centred on the characteristics of: high self-efficacy, knowing how to learn, creativity, the ability to use competencies in novel as well as familiar situations, possessing appropriate values and working well with others.

Given the propositions of complexity theory developing competency is a minimum standard for dealing with the rational, the linear systems. But we need capable people to deal with the unpredictable nature of complex environments (e.g. Graves, 1993; Hase, 2002; Stephenson & Weil, 1993; Stephenson, 1994) and how to develop work environments that enable capable people to express their capability (e.g. Cairns & Hase, 1996; Hase & Davis, 1999; Hase, 1998; Hase, Cairns and Malloch, 1998).

The issue of enabling capability is important, and confronts the issues of power and control that is the dominant theory in action in organizations no matter what the espoused theory (Argyris and Schon, 1996). Managers and supervisors in organisations need to be capable people themselves in order to facilitate the capability of others. Highly controlled managerial styles usually reflect high levels of anxiety or the need for power on the part of the manager. As a study of a number of Australian organisations has shown (Hase, Cairns & Malloch, 1998), a most important characteristic of a capable organisation is the capacity for managers to empower others, to share information, and develop capability. These are not new concepts of course and are endorsed by many contemporary management writers. Rosenhead (1998) provides an interesting reconceptualisation of management behaviour in the light of complexity theory that provides another line of support for capable people and organizations.

There is a heavy emphasis in our management schools and in organisations on the technical aspects of management and work and this is expressed through an emphasis on the attainment of competence. Similarly, the plethora of short management training programs attests to the simplistic approaches we take to developing our people despite there being little evidence to demonstrate behaviour really changes. We need to see more innovative approaches to fully enabling people to express their capability (and further develop it by doing so) such as that found recently in a major mining and construction company, for example, (Davis & Hase, 1999) and in other Australian commercial and government organisations (e.g. Hase, Cairns & Malloch, 1998) there are other excellent examples of course but space will not permit mentioning them here. The need for innovative approaches to education and training to develop capable people leads us to consider how we understand learning and it is to this that we now turn.

Heutagogy

Heutagogy, the study of self-determined learning, may be viewed as a natural progression from pedagogy and andragogy. It is learner-centred as opposed to teacher-centred learning. Teacher centred learning has to be organised by others who make the appropriate associations and generalisations on behalf of the learner. Thus, random individual experiences are taken to be inadequate as sources of knowledge, the educational process is seen to need disciplined students, and literacy is seen to precede knowledge acquisition. Success is based on attending to narrow stimuli presented by a teacher, an ability to remember that which is not understood, and repeated rehearsal. Self-determined learning assumes that people have the potential to learn continuously and in real time by interacting with their environment, they learn through their lifespan, can be lead to ideas rather than be force fed the wisdom of others, and thereby they enhance their creativity, and re-learn how to learn. Heutagogy recognizes that people learn when they are ready

and that this is most likely to occur quite randomly, chaotically and in the face of ambiguity and need. The challenge becomes how to maximise its potential.

The idea that, given the right environment, people can learn and be self-directed in the way learning is applied is not new and has been an important humanistic theme that can be followed through the philosopher Heider (Emery, 1974), phenomenology (Rogers, 1951), systems thinking (Emery and Trist, 1965), double loop and organisational learning (Argyris & Schon, 1996), andragogy (Knowles, 1984), learner managed learning (Graves, 1993; Long, 1990), action learning (Davis & Hase, 1999; Kemmis & McTaggart, 1998), Capability (Stephenson, 1992), work-based learning (Gattegno, 1996; Hase, 1998) and knowledge management (Davenport & Prusak, 1998). The thrust that underscores these approaches is a desire to go beyond the simple acquisition of skills and knowledge as a learning experience. They emphasise a more holistic development in the learner of an independent capability (Stephenson, 1993), the capacity for questioning ones values and assumptions (Argyris & Schon, 1996), and the critical role of the system-environment interface (Emery & Trist, 1965).

A heutagogical approach recognises the need to be flexible in the learning where the teacher provides resources but the learner designs the curriculum, not just the learning process, by negotiating the learning. Thus learners might read around critical issues or questions and determine what is of interest and relevance to them and then negotiate further reading and assessment tasks. With respect to the latter, assessment becomes more of a learning experience rather than a means to measure attainment. Constructivism goes some of the way to addressing this issue but needs to be considered more fully in the light of the nuances of complexity theory (see for example, Doolittle, 2000). As teachers we should concern ourselves with developing the learner's capability not just embedding discipline based skills and knowledge. We should relinquish any power we deem ourselves to have.

Some of the work-based learning possibilities that are heutagogical in nature are action learning, and coaching and mentoring, and their associated techniques. These approaches emphasise processes that provide the opportunity to access learning 'moments', tacit learning, and develop the notion of a learning organisation. A more recent conceptualization of this notion that has been provided a practical base is that of knowledge management.

The challenge for workplaces is to not be frightened of conflict and ambiguity but see these states as an opportunity for learning. Perhaps even the creation of instability provides the atmosphere for learning to occur. It is when we are confused and anxious that we ask the questions that lead to learning.

Conclusion

Complexity theory suggests that there is an ontological basis for thinking about dynamic approaches to harnessing learning and developing people capable of coping with complexity. Furthermore we need to think carefully how we create environments that recognise complexity and fully engage with enabling capability.

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