

# Learning and development as a spiritual journey

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In this paper, contemporary interpretations of learning are challenged. Learning is presented as a multi-dimensional process that operates at different levels of consciousness. As a human matures as a learner, they become more adept at accessing deeper and deeper levels of consciousness. The deeper the level of consciousness accessed, the more spiritual does the process of learning become. The spiritual journey is one of accessing the unconscious and making it conscious, of ultimately recognising the interconnectedness of everything. The recognition of the development of the learner into deeper levels of consciousness allows a more diverse praxis for learning facilitators, whether they be teachers or other leaders. While instructor and trainer are important roles for such facilitators, if they would be helping learners to develop as learners, they must also become co-learners, guides and companions. Ultimately learning is a collective and interconnected (spiritual) process.

**Key words:** levels of consciousness, interconnectedness, levels of learning, levels of teaching

## INTRODUCTION

Why is the exploration of leadership, learning and development important? What justifies the time and effort involved in such exploration? The answer to these questions is quite simple. The world is in a mess! Climate change, the global financial crisis and the world educational crisis are three prime examples of that mess.

As Einstein pointed out, 'No problem can be solved from the same level of consciousness that created it'. If major global problems are to be resolved, somehow different levels of consciousness need to be accessed by leadership. Continuation of the *status quo* is not an option.

Contemporary management and organisation theory is heavily influenced by the concept of the learning organisation (e.g. Argyris & Schon, 1978; Garratt, 1987; Senge, 1990a; Pedler et al, 1991; Easterby-Smith et al, 1999; Easterby-Smith & Lyles, 2005). This implies that leadership must apprehend, comprehend and engage learning. Senge (1990b) claimed that building learning organisations was the leader's new work.

Over recent decades, the concept of leadership has undergone a transition from trait theories seeking to find universal personality markers for leaders, through behavioural theories seeking to explain leadership in terms of the behaviours of leaders,

through contingency models seeking to integrate trait and behavioural theories to transformational theories which distinguish transactional activities from those that facilitate the transformation of followers. This transition has also included refocusing from the individual leader to collective leadership.

Successful transformational leadership relies on the ability of that leadership to encourage and foster developmental transformations of followers and leaders alike. Using Senge's (1990a) terminology, transformational leadership facilitates the development of 'personal mastery', which requires a radical change in thinking or 'metanoia'. This in turn requires a re-conception of learning and development.

This re-conception incorporates acknowledgement of a development process as something related to, yet distinct from, the learning process. Indeed, the nature of learning itself changes as a consequence of developments in the learner. The re-conception incorporates recognition of levels of consciousness as constitutive components of the mind. As deeper levels of consciousness are probed, the spiritual nature of the human emerges.

The practical application of these insights suggests a new perspective on the role of other(s) in learning and development enterprises. No longer can the role of leader or teacher be equated glibly with that of manager, trainer or instructor. More importantly, the roles of facilitators and companions can be more clearly distinguished from other 'teaching' and leading roles. Ultimately, learning and development can be recognised as

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collective, spiritual processes requiring interconnection of learners and/or developers with one another, in order that all more fully approach their innate potential as humans.

These issues are explored in this paper. In the next section, the need for such an exploration is justified. This is followed by a review of major learning theories and discussion of the concept of development as learners. This is followed by an integration of the theories and proposal of a new model of developmental learning. Finally, a conclusions section draws together and summarises the paper.

### JUSTIFICATION OF THE NEED

Why is exploration of leadership, learning and development important? What are the reasons that justify the time and effort involved in such exploration? The answer is quite simple. The world is in a mess! The challenge of climate change, the global financial crisis and the world educational crisis are just three prime examples of that mess. A brief explanation of each follows.

Although the debate continues to rage about global warming, climate change and the impact of human activities on the environment, there can be little doubt that 'things ain't what they used to be'. The population of the world has increased from about 1,000 million people in 1880, to 6,000 million in 2000 and is expected to climb to about 9,000 million by 2050 (Census, 2009).

Despite, or perhaps because of, the disappointing outcome of the 2009 Copenhagen summit on climate change, there is adequate evidence that there is a problem. The Australian Bureau of Meteorology, for example has reported that 'Australia and the globe are experiencing rapid climate change' (Australian Bureau of Meteorology, 2009).

This is consistent with the view of the Intergovernmental Panel on Climate Change, which in 2007 released its fourth assessment report, which concluded that 'changes [in climate] have the potential to have a major impact on human and natural systems throughout the world including Australia' (*Climate Change in Australia*, 2009).

The global financial crisis similarly underscores the precarious situation in respect of the interconnected economic-political systems in which human society functions. Although many commentators on the global financial crisis, just like the climate sceptics, deny that it's all that much of a problem, others like Talal Abu-Ghazaleh,

Chairman of the Arab Society of Accountants, are not so optimistic (Halawi, 2009).

The world educational crisis is most often described primarily as failure to provide viable opportunities for education of children in basic literacy and numeracy skills. For example, the 1999 UNICEF *State of the World's Children* report indicated the importance of universal education. It impacts on a range of factors, including child mortality, health, nutrition and overall quality of life. The report showed a direct correlation between years of schooling and child mortality rates, and said that children who grow up without basic education find it harder to sustain themselves and their families, and to make their way as adults in society in a spirit of tolerance, understanding and equality (UNICEF, 2000).

However, there is a deeper crisis that relates to the quality of education across the globe. The recent debate regarding publication of school 'league tables' in the Australian press emphasised that this crisis is not only about making it possible for children to attend school. It is also about what happens for them when they are there and what happens to learning beyond school. The idea of life-long learning is an oft quoted cliché. The learning organisation concept has permeated management literature, and has transmuted into similar concepts like learning communities and the learning society.

If the three major 'wicked' problems (Kesavan et al, 2009) described above and similar ones are to be solved, then somehow leaders and followers, teachers and learners alike need to access deeper levels of consciousness. The continuation of the *status quo* is not an option. A re-conception of learning and development is needed if trends described are to be arrested and reversed.

### LEARNING THEORY REVISITED

Throughout the 20<sup>th</sup> Century significant advances were made in learning theory. Building on the foundations of the ancient Greeks, the development of psychology catalysed and facilitated their refinement. As learning theory blossomed, it became clear that divisions seen in the ancient foundations continue. These divisions were exemplified by the creation of two 'schools' of learning theory – the behavioural and the cognitive. While it can be argued, and has been, sometimes violently, that one or the other of these schools is the more appropriate, it was their integration into a third 'school' – the humanist or experiential school of learning theory – that promised progress.

At the same time, rapidly expanding research into brain functioning, delivered more clarity about the biological foundations of learning. What was actually occurring inside the brain as learning took place provided further insights into learning. In particular, recognition of the 'quantum' aspects of those processes justified acknowledgement that there was validity in all three of these schools of thought.

Meanwhile, lurking in the background was a fourth 'school' of learning theory, that of social learning. This branch of learning theory was based on the premise that learning is a social activity. The learning process requires interaction of the learner with other(s) to be consummated. This requirement is not inconsistent with any of the other schools, nor with the biological processes taking place in the brain. However, it does add a degree of complexity. Ultimately, this complexity provides a new foundation on which to build a better understanding of learning. Before delving into this complexity, it is helpful to review the four schools briefly.

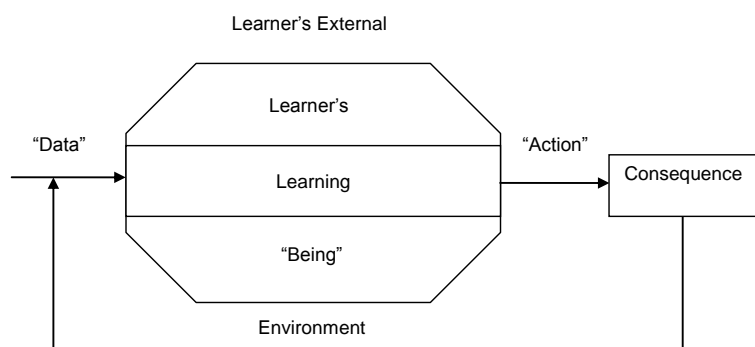
The ancient Greeks initially suggested that learning is about experiencing the world and building up a copy in the mind. The fatal flaw with this view is the unreliability of perception. The complexity of perceptual processes means that our mental world cannot be a reliable copy of the outside world.

As a consequence, two opposing views (rationalism and empiricism) developed and persisted. The contemporary manifestation of the empiricist view is that of behavioural learning (Skinner, 1976). Piaget (1950) instead espoused the rationalist tradition, which renounces copy theory altogether and says that real learning has little to do with simply experiencing the world as a passive observer.

### Behavioural learning theories

Contemporary learning theories build mainly on the rationalist view, but there is an important exception, that of the behavioural learning or operant conditioning theories of Skinner (1976) and others, firmly based on empiricism. Behaviourists believe that learning occurs when there is a change in an observable behaviour, which occurs when a connection is made between two events: stimulus; and response. Behaviour can be changed when this link is manipulated, and thus learning takes place. Operant conditioning is based on the idea that a person's behaviour is directed by its (expected) consequences. Skinner claimed that behaviour is a deliberate act that is influenced by reinforcement (see Figure 1). Positive reinforcement is used to develop 'good' behaviour, and punishment can be used to reduce 'bad' behaviour.

**Figure 1. Basic behavioural learning process**



**Note:** In this and subsequent figures, the learner's 'being' is used as shorthand for the learner's current gestalt.

Bandura (1977) extended basic behavioural learning theory by suggesting that learning can occur as a result of vicarious conditioning. This involves the observed behaviour of others and consequences of that behaviour. If the consequences are seen as desirable, then behaviour will be copied. If undesirable, then the behaviour is avoided by the observer. Although

cognitive activity may be implied by behavioural theories, it is certainly not essential to them.

### Cognitive learning theories

The cognitive theories of learning, by way of contrast, are based on the belief that learning is an internal, purposive process concerned with thinking, perception, organisation and insight

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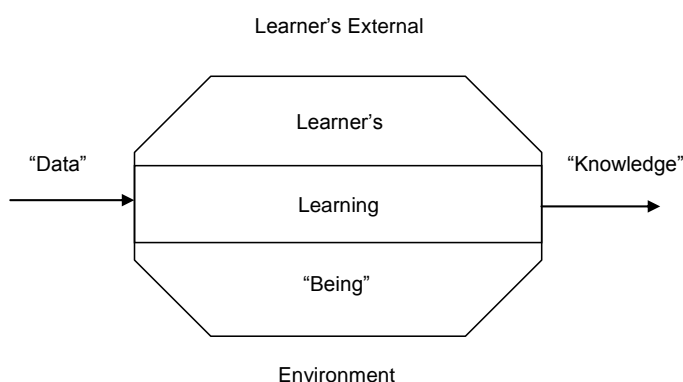
(McFadzean, 2001). Whereas behavioural learning theory requires little, if any, thinking to be involved in the process, cognitive theories propose that people learn by engaging memories and integrating them with incoming perceptions. Insightful learning occurs when past experiences or existing knowledge is adapted to a novel experience.

Cognitive learning occurs when problems are broken down into constituent elements. These elements can then be restructured into new relationships, creating new ideas or insights. This encourages learners to view situations from

different perspectives. This type of learning can be enhanced if a number of people come together to share knowledge with one another – group learning. However, this extension of cognitive learning is a form of social learning, discussed later.

At its most fundamental, the *cognitive learning process* is one that accepts ‘data’ from the learner’s environment, and transforms that data into a form of ‘knowledge’ (Figure 2). Just what is meant by the term ‘knowledge’ is in itself an area worthy of investigation, and this is taken up below as an extension of cognitive learning theory.

**Figure 2. Basic cognitive learning process**



Terms like data, information and knowledge are often used interchangeably. Amitay *et al* (2005) made an implicit distinction between information and knowledge and it is common to find a distinction made between data and information. It is useful to clarify this issue of knowledge terminology.

Bierly *et al* (2000) addressed this issue using the

common framework of data, information and knowledge as distinct concepts, and added a fourth that they called wisdom. Using Bloom’s (1956) taxonomy of educational objectives as a reference point, they proposed four levels of learning (Table 1), which align roughly with Bloom’s hierarchy, albeit by combining some levels of the taxonomy.

**Table 1. Distinctions between data, information, knowledge and wisdom**

Level	Definition	Learning process	Outcome
Data	Raw facts	Accumulating truths	Memorisation (data bank)
Information	Meaningful, useful data	Giving form and functionality	Comprehension (information bank)
Knowledge	Clear understanding of information	Analysis and synthesis	Understanding (knowledge bank)
Wisdom	Using knowledge to establish and achieve goals	Discerning judgements and taking appropriate action	Better living/success (wisdom bank)

Source: Bierly *et al*, 2000: 598

These distinctions provide a useful means of discriminating not just different levels of 'knowledge' but also the associated 'learning' process, as well as the outcome of each process in the form of a so-called 'bank' that can be drawn upon as input for the next higher process.

Allee (1997) addressed the same issue and

proposed another three forms of 'knowledge'. Two of these, meaning and philosophy, she interposed between knowledge and wisdom, and the other, union, beyond wisdom. In effect, she redefined the original form of Bloom's taxonomy to add union, to create what she called a 'knowledge archetype' (Table 2).

**Table 2. Learning and performance framework reference chart**

Knowledge	Learning	Action Type	Performance Focus
Data	Instinctual (sensing)	Data	Feedback (gathering information)
Information	Single-loop (action without reflection)	Procedures	Efficiency (doing something the most efficient way)
Knowledge	Double-loop (self-conscious reflection)	Functional (doing it the best way)	Effectiveness
Meaning	Communal (understanding context, relationships, and trends)	Managing (understanding what promotes and impedes effectiveness)	Productivity
Philosophy	Deutero (self-organising)	Integrating	Optimisation (seeing where an activity fits in the whole picture)
Wisdom	Generative (value-driven)	Renewing	Integrity (finding or reconnecting with one's purpose)
Union	Synergistic (connection)	Union	Sustainability (understanding values in greater context)

Source: Adapted from Allee, 1997: 67-8

Allee claimed that the different modes of knowledge form a continuum of increasing complexity and integration (a developmental perspective). This implies that there are different learning, information processing and other dynamics for each as suggested by Bierly et al (2000). Conversion of data into information is quite different from conversion of information into knowledge, and so on. The importance of these distinctions will become more apparent in the context of development, discussed later.

Ecological psychology has attempted to meld behavioural learning and cognitive learning theories by recognising the intention of the learner as an intervening factor in the learning process (Young et al, 2002). However, on closer examination, the proposed models perceive intentions as another factor that needs to be addressed by the 'instructor'. The learner's intentions need to be

'corrected' before 'learning' can proceed according to the intentions of the instructor.

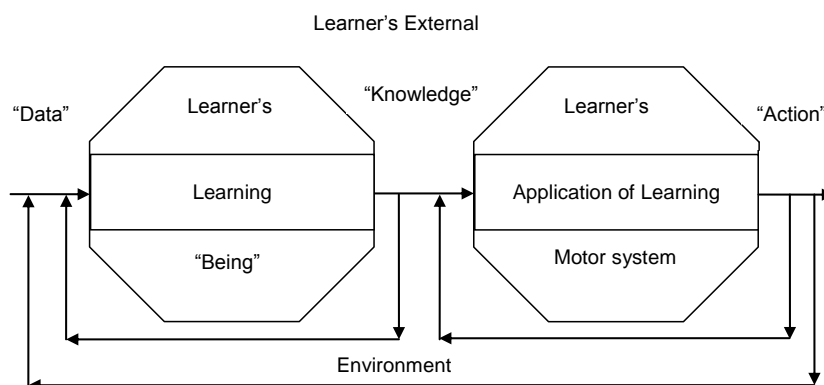
However, ecological psychology also attempts to integrate the experiential essence of humanist learning theories, discussed below, with 'perceiving-acting' systems.

### **Humanist learning theories**

Humanist learning theories (Figure 3) are concerned with experiences and feelings, which lead to individual fulfilment and personal growth. Arguably the best known proponent is Maslow (1968; 1971). According to Maslow, in order to achieve self-actualisation, lower level needs such as safety, belonging and esteem need to be at least partially fulfilled. Maslow perceived the aim of education to be the assistance of learners to achieve self-actualisation, thus implicitly linking learning to development.

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**Figure 3. Humanist learning process**



Another advocate of humanism, Rogers (1983), claimed that learning should be significant, meaningful and experiential. It should involve thoughts and feelings, as well as action, the essence of experiential learning, and it has five important characteristics:

- It involves the whole person, emotions and cognitions.
- It is self-initiated, with a sense of discovery coming from within.
- It is pervasive and makes a difference to attitudes, behaviour and possibly personality of the learner.
- It is evaluated by the learner, who knows whether their needs have been met.
- The essence of the learning has meaning for the learner.

**Table 3. Processes and units of learning and development in Piaget's theory**

Processes and units	Empirical knowledge	Logico-mathematical knowledge
Type of change	Learning	Development
Field	Figurativity	Operativity
Type of knowledge	Empirical	Logico-mathematical
Source	Objects	Actions
Type of abstraction	Empirical	Reflective
Behavioural basis	Perception	Schemes (abstracted actions)
Mentalisation process	Internalisation	Interiorisation
Mental units	Schemas (representations, concepts)	Operations (mental actions)
Process of change	Learning	Assimilation Accommodation Equilibration

Source: Adapted from Leahey and Harris, 1985: 361

Arguably, the most important enhancement to humanist learning theory came from Piaget (1950), who shared Werner's (1957) general organismic, inner-directed view of human development. Piaget proposed that cognitive development unfolds in

much the same way that a logical argument unfolds, step by step, in a logically necessary sequence of stages and sub-stages, and drew a sharp and significant distinction between empirical knowledge (*learning*) and logico-mathematical

knowledge (*development*) (Table 3).

Bateson (1972) extended Piaget's theory to adults by incorporating stages beyond Piaget's formal operations. Bateson (1972: 283) defined learning as an action that denotes change, with change itself denoting, in turn, processes which are also subject to change. Included in this view is the idea that all learning is stochastic because it involves trial and error.

Arising from this, Bateson proposed the following four categories of learning:

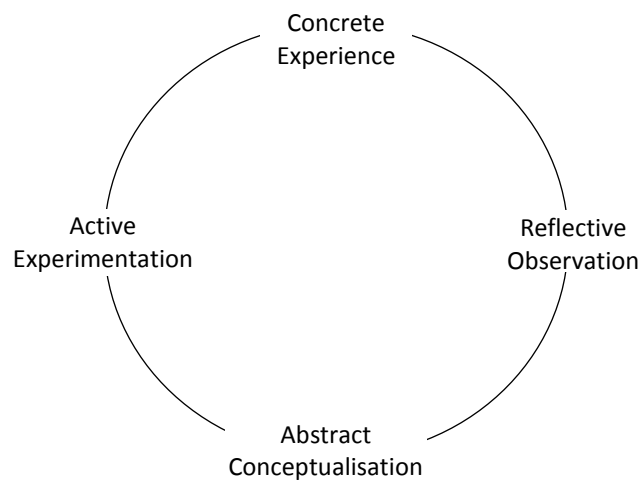
- Zero Learning: all acts that are not subject to correction
- Learning One: revision of choice within a

given set of alternatives

- Learning Two: revision of the set from which the choice is to be made
- Learning Three: revision of a set of sets.

Argyris and Schön (1978) redefined Bateson's Learning One as single-loop learning, and Learning Two as double-loop learning. Kim (1993) later redefined Learning Three as triple-loop learning. Implied in Bateson's categories of learning is a developmental process. Until the appropriate developmental changes occur in the individual, they do not incorporate the higher levels of learning into their repertoire.

**Figure 4. Kolb's Learning Cycle**



Source: Kolb, 1984: 21

By combining aspects of Piaget's learning and development and identifying the outcome as (experiential) learning, Kolb (1984) called into question Piaget's distinction between learning and development. What Piaget referred to as development, was in fact, the outcome of that development. What he labelled as development was a higher level of learning, achieved via a developmental process.

Recognition of this is quite clear in Piaget's later writings, where he frequently refers to what has been labelled development in Table 3 as the stage of 'formal operations'. Thus, it can be concluded that Piaget's distinction of learning and development was valid, but apparently confused process with outcome. This conclusion is supported by Bateson's proposals for categories of learning.

Before further exploring the implications of a developmental framework it is important to give

further consideration to social learning theories. Although humanist learning theory extends cognitive theory by emphasising the importance of both emotion and experimentation, it does not include explicit recognition of the role of others in the process of learning. As a consequence, social learning theory has developed to fill this gap.

### **Social learning theories**

Social learning theories build on both cognitive and humanist learning theories with the claim that learning is a social activity that happens in relationship. Bateson (1972) claimed that in the absence of (an)other, there was no meaning to be had. Meaning comes about only in the learner's recognition of difference and/or similarity in a particular relationship in comparison with other relationships.

Social learning theory began as an attempt to

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integrate the insights of psychoanalysis with those of behaviourism (Dollard & Miller, 1950). Since its creation, it has moved from its Freudian roots to become more cognitive. Social learning theory builds on Bateson's proposition that meaning is derived only through relationships. Learning takes place only in the relationship between learner and the object of learning.

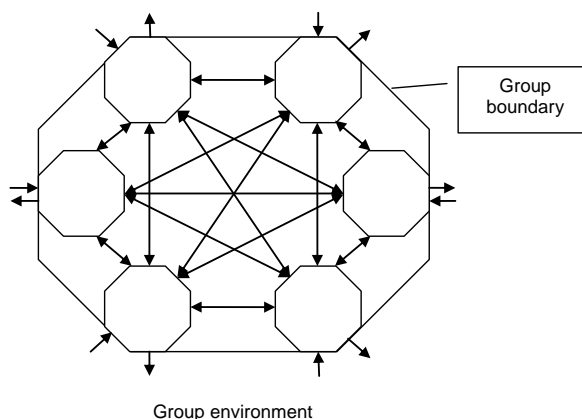
However, contemporary social learning theory has been constructed mainly on the foundation of Vygotsky's (1978) socio-cultural theory. Vygotsky maintained that all cognitive learning occurs at the social level before it becomes learning at the individual level. Obviously this resonates with learning organisation theories (Senge 1990a) that

include such aspects as team learning and dialogue.

In Vygotsky's framework, learning is a continual process of transforming existing knowledge into new knowledge through personal-social interaction. What is learned and how it is learned are matters of individual interpretation of experience.

Social learning requires more than one learner, with each being open to data in the form of the actions of the other learner(s), and each also a source of data for the other(s) in the form of their actions (Figure 5). Although in its simplest form it requires just a dyad, social learning provides a foundation for what Senge (1990a) called team learning.

**Figure 5. Social learning process**



**Note:** For simplicity, Figure 5 has shown the two-stage process shown in Figure 3 as a one-stage process, based on an assumption of no direct transfer of tacit knowledge. However, there seems to be some evidence that a team learning situation such as illustrated here can involve a direct transfer of tacit knowledge (e.g. Palmer, 1998; Peck, 1987; Wilber, 2001).

If the possibility of extra-sensory perception or the direct transfer of tacit knowledge is excluded, each learner acts as an interdependent interactive entity, acquiring data from the group's external environment, as well as actions of the other learner(s) and acting on the group's external environment and/or within the group.

By applying a developmental perspective to the four schools of learning theory, they can be seen as the outcome of an expanding perception of the learning process. Behavioural learning, the most primitive theory, excludes the role of cognitive processes, emotions and social interaction. Cognitive theory adds the role of cognition, humanist theory adds emotional and experiential components and social learning theory adds social interaction. A fifth level of theory can also be identified as emergent – that which incorporates spiritual or existential learning – the direct transfer

of tacit knowledge (Levine, 1994; Palmer, 1998; Peck, 1987; Vaill, 1998; Wilber, 2001).

### INSIGHTS FROM NEUROLOGY

Contemporary brain research provides further insight into the concept of learning. Two important insights are discoveries that the brain is a quantum environment, and that different parts of the brain are activated for different kinds of learning.

According to Rock and Schwartz (2006), neurons in the brain communicate with one another through movement of ions, which travel through channels that are, at their narrowest point, only a little more than a single ion wide. This suggests that the brain is a quantum environment and therefore subject to the laws of quantum mechanics.

There are a number of important implications of



this finding. One is that the act of focusing attention on a mental experience, 'whether a thought, an insight, a picture in your mind's eye, or a fear, maintains the brain state arising in association with that experience' (Rock & Schwartz, 2006: 7). Attention continually reshapes brain patterns, so that people who perform different functions, that is, apply their attention to different foci, develop physiological differences that prevent them from seeing the world in the same way as others.

People's values, theories, expectations and attitudes, their mental maps, play a central role in their perceptions. So, if they are to learn, they need to change those mental maps. They need to 'unlearn'. One way of doing so is by cultivating moments of insight. At the moment of insight, a complex set of new connections is being created. These have the potential to enhance our mental maps and overcome the brain's natural resistance to change. To do this requires repeated attention to the insight.

For insights to be useful in this way, they need to be self-generated, not provided by an outside 'expert' as conclusions. 'People will experience the adrenaline-like rush of insight only if they go through the process of making connections themselves' (Rock & Schwartz, 2006: 8).

Gardner's (1983) theory of multiple intelligences further complicates comprehension of knowledge as well as the learning process *per se*. In his lengthy research on brain functions and learning, he came to the conclusion that there were seven distinct variations of the learning process each using a different part of the brain, thus supporting Vygotsky (1978). Noting that each individual seems to have a distinct mixture of tendencies to use these different learning processes, he labelled each of these tendencies an 'intelligence'. This raises the question of whether each of these intelligences deals with a different form of knowledge and hence a distinct learning process as suggested by Allee (1997).

Gardner later proposed that his original list of seven intelligences: linguistic, logical-mathematical, musical, bodily-kinaesthetic, spatial, interpersonal, and intrapersonal, may need to be extended to include naturalist and existential intelligence, with an understanding that the latter may incorporate a form of spiritual intelligence (Gardner, 1999). Thus, the nature of knowledge, and hence the nature of learning, may well vary depending on the 'intelligence' to which it relates.

On the basis of his theory of multiple intelligences,

Gardner suggested that much speculation and research that has focused on learning has been concerned with but one of the human intelligences, that is the logical-mathematical. In particular, he identified Piaget's (1950) research as focused exclusively with logical-mathematical 'intelligence'. If Gardner is correct, then contemporary comprehension of the learning process is but the 'tip of the iceberg'.

## DEVELOPMENT AS LEARNERS

Kegan (1980) suggested that the developmental process is one of evolution. For humans, evolving is equated to the evolution of systems of meaning. Our meanings, according to Kegan, 'are not so much something we have, as something we are' (1980: 374). Our meaning systems shape our experience and to a large extent give rise to our behaviour. Except during transition to a new stage, a given system of meaning organises our thinking, feeling and acting. In order to change, we need to be aware of that system of meaning and accept it for what it is. Only then are we free to develop to a new level of awareness.

The paradoxical nature of change is significant in the Gestalt framework. One cannot *change* until one *accepts* what exists, who one is and how one functions. Acceptance only occurs with awareness (Hazen, 1994: 74, italics in original).

The deep structure of our meaning-making systems involves distinction between self and other, or between subject and object, as proposed by Bateson (1972). Development involves redifferentiating and reintegrating relationships. 'The internal *experience of developmental change can be distressing*. Because it involves the loss of how I am composed, it can also be accompanied by a lack of composure' (Kegan, 1980: 374, italics in original).

It follows that there will be a degree of inertia regarding developmental change. A reluctance to engage with the distress of transformation can lead to 'arrested development'. Even though the appearance of adulthood is physically manifested, it may not be the case that ideological, psychological or spiritual adulthood has been attained.

In a much wider-ranging analysis based on sixty to seventy theories from Eastern and Western traditions, Wilber concluded that 'all developmentalists, with virtually no exceptions, have a stage-like list, or even a ladder-like list, a holarchy of growth and development.... – even the contemplative traditions. ...These stages are the

result of empirical, phenomenological, and interpretive evidence and massive amounts of research data' (2001: 135).

At each stage of development, according to Wilber, there is an expansion of consciousness or awareness, an accession to the personal and/or collective unconscious, which then becomes conscious, so that 'there is a different view of the world – a different view of self and others – a *different world-view*' (Wilber, 2001: 132, italics in original). Not only is there a different world-view, different worlds are created by the evolution of consciousness. At each stage of development 'you get a different type of *self-identity*, a different type of *self-need*, and a different type of *moral stance*' (Wilber, 2001: 132, italics in original).

According to Wilber, transition from one stage to the next is characterised by evolution to the new level of awareness, and identification with that level. The self then begins to move beyond that level or transcend it. Finally, the self integrates all of the lower levels into itself in order to consolidate its new world-view.

### SYNTHESISING THE THEORIES

When the insights of the various theories of learning and development discussed above are combined, it remains difficult to isolate the essence of individual learning. Bierly *et al* (2000) and Allee (1997) suggested that there are different levels of learning connected to different levels of knowledge. Gardner's (1983) theory of multiple intelligences implies that learners have varying degrees of capacity to learn different kinds of things, and Kolb (1984) suggested that there are different ways of learning depending on intended outcomes of the learning, as well as the learning preferences of the learner. The process of learning will therefore be contingent on these variables and more. The stage of development of the learner, for example, will constrain, but not eliminate, their ability to engage in some kinds of learning.

The degree of complexity implied in the various approaches to and theories of individual learning is extended by theories of social learning.

One way to make sense of this complexity is to embrace a developmental model of learning. Such a developmental model recognises that there are different kinds of learning taking place at each level of development. Some examples of recognition of such different kinds of learning are: Bateson's (1972) levels of learning; Allee's (1997) learning and performance framework; and Rogers' (1983)

distinction of learning about; learning to do; and learning to be.

### A DEVELOPMENTAL LEARNING FRAMEWORK

Integrating these different perspectives makes it possible to distinguish four major categories of learning, three of which can be further subdivided. Each of these sub-categories of learning represents access to a higher level of development as a learner, and/or access to a deeper level of consciousness (Wilber, 1998):

1. Learning *to do* something (operational learning):
  - 1.1. Reflexive learning (stimulus-response learning)
  - 1.2. Impulsive learning (stimulus-decide-response learning)
  - 1.3. Opportunistic learning (stimulus-decide-imagine-response learning)
2. Learning *about* something (conceptual learning)
3. Learning *to be* someone (humanistic or experiential learning):
  - 3.1. Diplomatic learning (learning to be in relationships)
  - 3.2. Expertise learning (learning how to apply a body of knowledge in familiar contexts)
  - 3.3. Achievement learning (learning how to apply a body of knowledge in unfamiliar contexts)
4. Learning *to become* someone (developmental learning):
  - 4.1. Strategic learning (revision of the choice set or double-loop learning)
  - 4.2. Alchemic learning (revision of a set of choice sets or triple-loop learning – accessing the personal unconscious)
  - 4.3. Mystic learning (tapping into the collective unconscious).

As learners develop, they more readily access the categories with higher numbers. However, it is important to recognise that the learner is capable of accessing even the highest level (mystic learning) before they have become capable of habitually accessing that level. That is, development represents an increase in probability that a higher level of learning, accessing a deeper level of

consciousness, will be engaged by the learner.

As the kind of learning being engaged moves to a higher level, it becomes less bounded by structures and rules, more emergent and creative. It is appropriate for lower levels of learning to be bounded by rules and structures, to ensure that the learner survives and is able to operate successfully in the culture of their society. The challenge to 'teachers' and/or 'leaders' is to break free from such bounded learning situations as the learner develops. They need to develop the courage to become co-learners (Palmer, 1998).

If teacher and/or leader is to respond appropriately to the changing needs of developing learners, then the teacher and/or leader needs to embrace teaching or leading as an emergent process. It will not serve to continue to embrace traditional,

structured processes that serve well enough for learners at earlier stages of development, particularly if engaged in creating learning organisations, communities or societies. And if we are to successfully engage with the wicked problems outlined in the rationale for this paper, we do need to create those kinds of learning collectives.

This raises two important issues that need to be addressed. The first is preparation of the teacher and/or leader, who needs to make the transition from reinforcer (as in behavioural learning) to servant (Table 4). The second is exploration of processes that not only allow the learner to embrace higher levels of learning, but encourages them to do so.

**Table 4. Kinds of learning/kinds of teaching/leading**

Kind of learning		Kind of teaching/leading
Category	Sub-category	
<i>Operational</i>		
	Reflex	Reinforcing
	Impulsive	Training
	Opportunistic	Instructing
<i>Conceptual</i>		Teaching
<i>Humanistic</i>		
	Diplomatic	Caring/Nurturing
	Expertise	Master/Expert
	Achievement	Coaching
<i>Developmental</i>		
	Strategic	Facilitating
	Alchemic	Mentoring
	Mystic	Service/Companionship

The perhaps too obvious response to the first issue is that the teacher and/or leader needs to develop their own higher learning capacity. In parallel with the traditional emphasis on the teacher's expertise in the content arena of the object of study, or the leader's expertise in the field in which they lead, there needs to be an emphasis on the teacher's and/or leader's expertise in the arena of process. If the teacher and/or leader is not at the same or a higher level of development than the learners, s/he is unlikely to 'trust the process'. The consequence of such a lack of trust is likely to be regression of the process to that appropriate for a lower level of learner development, where the teacher and/or leader feels comfortable.

## CONCLUSION

This paper has suggested that many contemporary approaches to learning are inadequate for addressing some of the major problems facing humanity. These problems include climate change, the global financial crisis and the world education crisis.

Thus it is important to understand better the enterprise of learning, so that humanity develops greater access to the deeper levels of consciousness that are essential for solving the wicked problems that we have created at current levels of consciousness. The starting point for this better comprehension, it was argued, is to

## LEARNING AND DEVELOPMENT AS SPIRITUAL

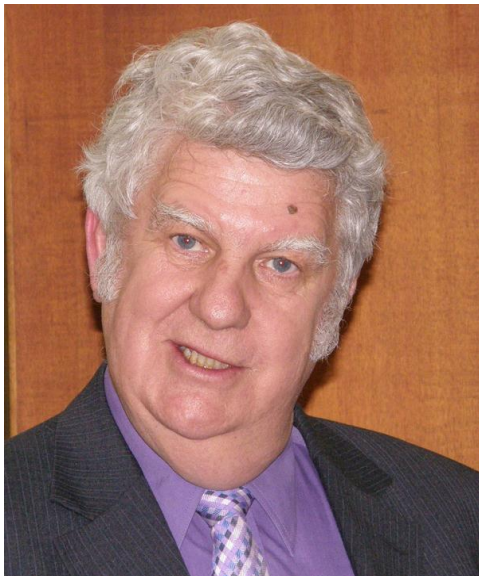
understand contemporary theories of learning, so that their shortcomings can be recognised and improved approaches can be embraced.

When it is recognised that different approaches to learning are consistent with a developmental framework, and are addressing different levels of consciousness, it first of all legitimises approaches that are consistent with the kind or level of learning that is desired. At the same time, it calls into question use of learning facilitation methods that are inconsistent with the level of consciousness typically engaged by the learner.

It also emphasises the need for the learning enterprise to focus on the development of the learner as well as learning *per se*. In particular, it is important to recognise that the journey of the

learner is a spiritual one, as well as a psychological one. As the learner engages deeper levels of consciousness, they become more aware of the interconnectedness of everything, and are less likely to contribute to the unconscious destruction of their environment.

The recognition that learning, and therefore teaching and leading, are emergent processes provides the foundation for re-imagining and re-creating the whole learning enterprise. Emphasis needs to be gently but firmly shifted from content to process. Such an approach holds the potential for more universal access to deeper levels of consciousness, which is essential if humanity is to transcend the multiple crises of contemporary global society.



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