INTRODUCTION

It is widely acknowledged that ‘learning’ is a problematic concept in Human Resource Development, for both theoreticians and practitioners. In this chapter we consider Gregory Bateson’s theory of ‘levels of learning’ as a fruitful yet enigmatic framework that offers a radical conceptual perspective on issues of workplace learning. We explore the origins and substance of Bateson’s theory, which differentiates between types of learning; consider three examples of its potential relevance to issues of workplace learning; then review variations in notions of ‘learning to learn’ in the light of Bateson’s thinking. Finally we appraise the theory in the light of subsequent commentaries.

Our research approach combines a scholarly reading of Bateson’s work (Bateson 2000); (Bateson 1979); (Bateson & Bateson 1988) and related commentaries such as Brockman (1977), Charlton (2008), Keeney (1983) and Visser (2003), with application of Bateson’s framework in a consultancy project, and within a doctoral study of arts organisations in crisis (Tosey, Mathison, & Langley 2008).
THE ORIGINS OF BATESON’S THEORY

Gregory Bateson (1904 - 1980) was an English academic, the son of geneticist William Bateson (Lipset 1980). In 1936 he married Margaret Mead, with whom he conducted anthropological fieldwork in New Guinea and Bali, and took up residency in the USA in 1940.

Bateson and Mead were prominent participants in the Macy conferences (Montagnini 2007), which began in the USA in 1946 and which laid the foundations for the interdisciplinary science of cybernetics, a way of thinking in which systems are organised according to feedback (see for example Capra 1996:51-71). Bateson’s particular development of this work emphasised the ecological nature of human systems. He was passionately interested in issues of epistemology - that is, how we know what we know: ‘The processes with which Gregory was concerned were essentially processes of knowing: perception, communication, coding and translation….’ (Mary Catherine Bateson, in Bateson 2000:5). Among other things he argues that ‘mind’ resides in connections and relations in systems, not in the brains of individual people:

‘Consider a man felling a tree with an axe. Each stroke of the axe is modified or corrected, according to the shape of the cut face of the tree left by the previous stroke. This self-corrective (i.e., mental) process is brought about by a total system, tree-eyes-brain-muscles-axe-stroke-tree; and it is this total system that has the characteristics of immanent mind’.

(Bateson 2000:317).
In the 1950’s, human communication became the main focus of Bateson’s work. During this time he developed the famous `double bind’ theory of schizophrenia (Bateson et al. 1956). From 1964-1972 he was Director of the Oceanic Institute, Hawaii (1964 – 1972). There, he was inspired by his observations of the way dolphins were trained (Bateson 2000:276-8) to develop his theory of levels of learning (see also Visser 2003).

In the standard training method, whenever the trainer noticed behaviour that she deemed desirable for the dolphin to repeat in front of an audience, it was marked by the reward of a fish. This type of learning could be thought of as classical conditioning, in that the dolphin was learning to associate specific behaviours with the reward of food. However, once a particular behaviour was established in the dolphin’s repertoire, the reward would be withheld. Bateson observed that initially this appeared to cause the dolphin some discomfort and frustration. Then, perhaps to some extent as a result of its agitation, the dolphin would eventually produce a new behaviour, which the trainer would reward as before.

This pattern continued over a series of sessions, until:

`In the time out between the fourteenth and fifteenth sessions, the dolphin appeared to be much excited; and when she came onstage for the fifteenth session, she put on an elaborate performance that included eight conspicuous pieces of behaviour of which four were new and never before observed in this species of animal. From the animal's point of view, there is a jump, a discontinuity, between the logical types.
In all such cases, the step from one logical type to the next higher is a step from information about an event to information about a class of events. Notably, in the case of the dolphin, it was impossible for her to learn from a single experience, whether of success or failure, that the context was one for exhibiting a new behaviour. The lesson about context could only have been learned from comparative information about a sample of contexts differing among themselves, in which her behaviour and the outcome differed from instance to instance. Within such a varied class, a regularity became perceptible, and the apparent contradiction could be transcended.’

(Bateson 1979:137)

Here, according to Bateson, the dolphin’s learning was of a different type; it was learning about context. The dolphin effectively learnt to distinguish between the class of behaviours that would be rewarded, and the class of behaviours that would no longer be rewarded. This notion of context is tricky and contestable (Edwards 2006). It refers to a constructed, experiential reality. It is not merely about the physical location or practical setting in which learning takes place: ‘for Bateson a context is the particular whole which a given part helps compose, not something separate from or abstracted from that part’ (Bredo 1989:28-9).

WHAT DOES BATESON’S THEORY OF LEVELS OF LEARNING SAY?

Bateson describes his theory as an attempt to illuminate ‘the barriers of misunderstanding which divide the various species of behavioural scientists… by an
application of Russell’s Theory of Logical Types to the concept of “learning”’ (Bateson 2000:279). The theory of logical types distinguishes between a class (e.g. fruit) and members of that class (e.g. apples, oranges) and, in order to avoid logical paradoxes, stipulates that a class cannot be a member of itself; thus `fruit’ cannot belong to the class `fruit’.

Altogether Bateson posited five levels of learning, as shown in Table 1. Bateson scarcely discussed Learning IV, commenting that it `probably does not occur in any adult living organism on this earth’ (2000:293), indicating that it is likely to involve evolutionary change in a species. We therefore confine our discussion to Learning 0 through to Learning III.

Insert Table 1 here

The relationship between successive levels is analogous to that between ‘apples’ and ‘fruit’, such that the levels represent qualitatively different types of learning. Bateson argued, however, that experience, which is located in time, would not reflect the neatness formal abstract logic (Charlton 2008:50). He also observed that; ‘Some of the most interesting aspects of communication may depend upon the use of contradictory messages at different logical levels…’ (Bredo 1989:30).

Bateson’s notion of Learning 0 entails responding to stimuli but making no changes in response to these. This is like the initial response of the two mice in the popular business parable ‘Who Moved My Cheese?’ (Johnson 1998), who continue to look for their cheese in the same place each day even after it had disappeared - until, that is,
the mice register that the cheese really has gone, and that they need to do something different. Yet *Learning 0* is also involved in skilled performance. The point is that it involves no change in behaviour; designating it numerically with a zero does not make it inferior to ‘higher’ levels.

*Learning I* denotes the changes in knowledge, skills and attitude that comprise ‘those items which are most commonly called “learning” in the psychological laboratory’ (Bateson 2000:288). Bateson included in this category habituation, rote learning, and Pavlovian conditioning. At this level of learning, for example, the dolphin responds to the trainer’s actions by producing new behaviours.

*Learning II* is essentially learning about the pattern of the context; there is change in the way events are punctuated. The dolphin’s apparent insight in the story above was into context – there was a new understanding of the relational pattern between itself, the trainer and the activity in which they were engaged. This notion of context, and how people and animals communicate about context, is significant in Bateson’s work. His question, during a visit to a zoo, about how monkeys that are play-fighting *know* that they are playing, and not fighting, is regarded by Ivanovas (2007:847) as; ‘one of the milestones of Western science.’ By analogy, we might ask (for example) how people in the workplace know whether to respond literally to a senior manager’s invitation to give honest feedback about their actions. Thus the concept of *Learning II* introduces a reflexive aspect to learning; ‘Instrumental conditioning tasks, for example, teach not only how to discriminate between particular stimuli, but also about instrumentality itself’ (Bredo 1989:36). With Bateson’s notion of context also
comes the recognition that learning is relational, social and constructed, since ‘…a way of punctuating is not true or false.’ (Bateson 2000:301).

*Learning II* is more profound and pervasive than *Learning I* (Cunningham & Dawes 1997). Bateson (2000:300) identifies the phenomenon of transference as *Learning II* – for example, about the patterning of relationship between a child and a parent. The individual imports this patterning into other contexts in life without being aware of doing so, where its overlay represents *Learning 0*. Thus, ‘this behaviour is controlled by former Learning II and therefore it will be of such a kind as to mould the total context to fit the expected punctuation… this self-validating characteristic… has the effect that such learning is almost ineradicable’ (Bateson 1973:272). New *Learning II* happens when the individual becomes able to enact a new pattern of relating that no longer replicates that past context.

With *Learning III*, we are challenged to consider what it may mean to say ‘one not only learns, but simultaneously learns how to learn, and simultaneously learns how to learn how to learn’? Bateson added the section on *Learning III* to his essay in 1971, noting that at this level, ‘the concept of “self” will no longer function as a nodal argument in the punctuation of experience…’ (2000:304). Furthermore, *Learning III* is rare; ‘...something of the sort does, from time to time, occur in psychotherapy, religious conversion, and in other sequences in which there is profound reorganization of character’ (Bateson 2000:301). Bredo notes that; ‘The “problem” to which third-order learning is a “solution” consists of systematic contradictions in experience’ (1989:35).
As a possible illustration of Learning III, we cite a meditation teacher’s description of his experience of discovering a different way of knowing:

’One day… I was eating. I had been sitting, struggling for a number of days … I lifted my bowl and suddenly I understood completely …

Everything is alright as it is. The whole world is completely profoundly whole. I didn’t need to do anything. I didn’t need to try so hard. … It was enormous, an astonishing revelation which instantly undercut all my questions and released me from the hundreds of ways I had always tried to change or fix myself or the world. There was an amazing physical dimension to it as well. My whole body dropped away, the self or container of myself vanished, the bottom of the world dropped out, I had no shape separate from the world. My whole way of being released and changed over the months that followed, so much that people began asking me what had happened’

(Kornfield 2000:93)

Some further observations about Bateson’s theory are relevant. Some sources portray Bateson’s levels as successive orders of cognitive reflection, (e.g. Brockbank & McGill 1998:41). Such a view could imply that his Learning III, for example, is broadly equivalent to a form of critical reflection (e.g. Mezirow & Associates 2000;Moon 2005). We believe that, according to the evidence of his writing, Bateson’s levels are clearly not about cognition alone – nor are they about behaviour alone. He refers repeatedly to embodied, enacted change, in tune with recent
theoretical notions of `embodied knowing’ (Lakoff, 1999; Varela, Thompson, & Rosch, 1993).

Furthermore it is not a stage theory of learning, whereby one `progresses’ from Learning 0 to Learning III. Bateson’s writing also suggests that all these levels may (but do not necessarily) occur simultaneously in experience. Bredo observes, `…the different levels of learning go in parallel’ (1989:32). While they can be distinguished logically in theory, in experience they may be happening together in time and space.

Nor is it the case that the higher one goes the better; Learning II and Learning III involve a questioning of meaning that can be uncomfortable and (according to Bateson) risky. Contu, Grey and Örtenblad (2003) identify a value-laden rhetoric in the field of management, such that `learning’, and related conceptions of `the learning organisation’ and `organisational learning’ are seen as a universally `good thing’. Contrary to this trend, Bateson conceives of `learning’ as potentially leading to either desirable or undesirable consequences.

APPLICATIONS TO ISSUES OF WORKPLACE LEARNING

We now give three illustrations of how Bateson’s theory may be applied to issues of workplace learning.

A consultancy example
We begin with an example from a consultant known to us, who described her experience of using Bateson’s theory in her work with an organisation that exists to support other organisations to put customer relationship management (CRM) at the heart of their practice. In the consultant’s words;

“They’ve realised that in order to support others, they need to be putting CRM at the heart of their own practice firstly to be credible, secondly so they know what it really means and also to be able to support others. The question is how?

I thought that it might help them to take a few steps back to understand the process that they were about to embark on. As part of one of the management team meetings I showed them Bateson’s model of levels of learning.

They were interested in the model and said that it made sense to them. They identified that they needed to learn CRM strategies, and also learn about the process of learning. They all chose learning tasks and agreed that they would reflect on how they learned in a journal. They had a month to complete the task and reflect on the process.

When we met again they reflected on what they’d learnt:

• They had never considered ‘learning to learn’ before they had seen the model. Learning was something that just happened ‘unconsciously’ or out of awareness unless it was something very tangible such as how to use a computer programme.
• They were interested in how they chose their tasks. A couple of people chose multiple tasks, some people chose a single task, others chose to learn about something they were going to do anyway. One chose to learn a new language.

• They reported that the process had helped them to be conscious of different types of learning activities and more aware of other people’s approaches to learning.

Retrospectively, we could portray these comments as indicating Learning I, about the chosen tasks. There is also evidence that they reflected on these tasks and engaged in a form of ‘learning to learn’.

‘I do think they became more aware of how they begin to learn, barriers to learning, their own approach (how they avoid and how they embrace), how over ambitious some people can be, and how learning is both intensely personal and is possible to be a team experience.’

Yet in Bateson’s theory this reflection is not the same as Learning II, a theme on which we expand below. Where Learning II appears to enter the picture is in comments such as:

• ‘Some people disengaged from the learning tasks they had set themselves, but in the group environment felt peer pressure to have learnt.

• Four people used their journal and found it helpful. Two of the people that didn’t said that they felt guilty about it, perhaps not contributing to the team’s learning.’
Identifying peer pressure is an example of attending to Learning II, since it concerns the pattern of relationship between individuals and team; meanings, rules, norms and expectations of the relationships between people. This recognises a social and micro-political dimension to learning; ‘No task instruction can be done in a socially neutral way… It must always… exemplify some form of social relationship…. Bateson’s theory helps show how they are different aspects of a common process rather than different things.’ (Bredo 1989:37).

Learning II can occur simultaneously with Learning I. It is not, as it were, timetabled separately on the curriculum of workplace learning. Any workplace experience could be said to involve overlapping and interpenetrating domains of learning, involving (for example) learning about self, about the overt task, and about the context at the same time. In the above example, each manager could be gaining insight into themselves for personal development; learning about customer relationship management; and learning about (and co-creating) a context.

Organisational learning

In the second example Bateson’s levels of learning were used as an interpretative framework as part of a doctoral study (Langley) of organisational learning in arts organisations that have survived financial crisis. Constructa (a pseudonym), a contemporary art gallery was set up in a deconsecrated church and describes itself as ‘a place where artists come to make new work.’
When first opened in 1996 it was regarded as avant garde. Some ten years later it has been grappling to understand its present and possible future. It has prided itself on supporting artists who are keen to experiment, be adventurous and push the boundaries of their work – perhaps by changing, scale, method or materials.

The gallery had exhibited a particularly challenging exhibition both in terms of its content and construction. It involved the creation of an additional galvanised steel room in the centre of the space, an act that stretched the organisation and its resources to its limits. In this room the audience were then confronted with questions about the ethics of mass media and photojournalism.

*Flash! The image burns the screen. It takes a while for startled eyes to adjust. Into focus emerges a small African child, emaciated and curled in the dust. Less that a metre away stands a statuesque vulture. This is the only image in a text based installation that tells of the short, troubled life of Kevin Carter. His beginnings, his life as a photojournalist and his ultimate suicide brought on by the scenes he witnessed, captured and distributed. This is a nerve jangling, skin rippling, emotion wrenching experience. It is in your body before your thoughts form.*

To the researcher, the story of the exhibition’s construction seems to mirror the process of renewal the organisation has been through: it is a story of winning through against the odds, delivering in spite of a lack of resources; of inspiration and learning to innovate, to overcome the challenges.
Reflecting from the perspective of each of Bateson’s levels, in order to identify possible examples of learning from her data, the researcher thought *Learning 0* may have been represented by the way many past routines were utilised. The gallery regularly produces exhibitions, so Constructa drew on existing capabilities. Behavioural patterns, possibly features of the culture, were also manifested. Drawing on Scott-Morgan’s (1994) ‘unwritten rules’, the researcher identified rules about quality, delivering on time, giving all your effort, respecting the artist – above all, ‘the show must go on’.

*Learning I* involves change in behaviour to meet stable or familiar goals (i.e. mounting the exhibition). There was evidence of people developing some new operational skills. The timescales and late decisions on funding meant that some processes and procedures needed to change; the extensive project management handbook was abandoned and they used existing networks to find emergency help.

*Learning II* is a change of pattern, the emergence of a new punctuation of events. The exhibit involved creating a new relational reality, with an international artist with whom they had not worked with before; the relationship was often mediated by a third party. The staff described how they tried to explain their ethos to the artist, but it was only the Chair and Vice-Chair who succeed in sharing some of the culture at the end of the week, by just ‘chatting’ at the exhibition’s opening night – ‘we want people to have a learning experience, we want people to grow’ (Chair, female).

The difficulties involved in constructing the box, and the emotional impact of the exhibit, resonated with the plight of the organisation. A Director recounted the
complexity of the experience and another possible example of Learning II, the emotional containment the team learnt. The difficulties were 'undiscussable'. One of the Gallery Directors talked about a lack of time for reflection. Staff seemed unwilling to discuss the event – unable, apparently, to move into reflection about it. It was a visceral, emotional experience.

Finally, other than the fact that a number of people, the researcher included, were profoundly moved by the work, the researcher did not identify evidence of Learning III.

This case, albeit described briefly, illustrates the possibility of using Bateson’s theory as an interpretive framework in relation to issues of organisational learning. This helped the researcher appreciate better the multi-faceted nature of learning in the organisations she has been studying.

**Transformation: reaching for the Holy Grail**

Our third and final example illustrates Bateson’s theory as a framework for critically analysing issues of workplace learning, in this case the notion of ‘transformation’. Indeed, initially we developed an interest in Bateson’s theory as a possible framework to enhance the conceptualisation of ‘transformative learning’ (e.g. McWhinney & Markos 2003; Tosey, Mathison, & Michelli 2005).
There appears to be a strong attraction in the Western world towards notions of ‘transformation’. Transformation is the espoused goal of many managers, consultants, organisations, and even governments. At first glance, Bateson’s Learning III would seem to offer the possibility of transformational learning. Yet as noted, Bateson said that Learning III is likely to be difficult and rare even in human beings’ (2000:301). It transcends, and potentially subverts, the whole basis of our perception and understanding of the world. Trying to grasp Learning III is, perhaps, like a fish trying to apprehend a world in which the sea does not exist.

The difficulty of this within Bateson’s theory is that typically people seem to want transformation on their own terms. Yet Learning III is not something that can be pursued in an instrumental fashion. Bateson emphasised that ‘even the attempt at level III can be dangerous’ (2000:305), leading to psychosis instead of enlightenment. He believed that both ‘religious’ and ‘psychotic’ experiences were examples of this kind of learning. He cites (Bateson 2000:461) the case of C.J. Jung, whose psychotic breakdown (or epistemological crisis, depending on your viewpoint) led to his writing one of the most problematic of his works, ‘The Seven Sermons of the Dead’.

This leads us to a paradox. While business leaders may yearn for transformation, and many consultants may promise to deliver it, it is both perilous to attempt and beyond the capacity of mankind to produce through planned, conscious intent. Few writers on organisational learning appear to identify this problem, with the exception for example of Bartunek & Moch (1994), who liken this type of learning to mystical transformation through the experience of ‘the dark night of the soul’. It is probably the projection of a hierarchical, goal orientated mind-set to see Learning III as some
kind of `holy grail’ (French & Bazalgette 1996) of learning; it is not guaranteed to be
either benign or transcendent. Therefore if Learning III were to happen, it would not
be controllable my management. It might disturb the very notions underpinning
business organisations and their purposes, values and operations.

LEARNING TO LEARN

One of the contributions of Bateson’s theory is that it can help to unpack the notion of
`learning to learn’, which according to Poell (1999) is a prominent theme of the
learning organisation literature. In management development, it has been said that
`Learning to learn... Will help you ultimately with everything you need or want to
learn in the future.’, (Pedler, Burgoyne, & Boydell 2001:260).

Using Bateson’s framework we can identify at least four different aspects to this term.
First, `learning to learn’ often refers to the acquisition of skills or knowledge
pertaining to the intentional activity of learning or study. This, we suggest, is an
example of Learning I in Bateson’s framework, in the sense that it concerns of new
behaviours and skills that provide new choices for action.

Second, `learning to learn’ can refer to reflection on, or increased awareness of the
processes involved in, learning. In HRD a typical example could be through profiling
one’s learning style (Coffield et al. 2004; Honey & Mumford 1992); in Higher
Education research there is contemporary emphasis on `metalearning’ (Jackson 2004)
and metacognition.
The question of where this form of ‘learning to learn’ can be located in Bateson’s framework highlights a difficulty about the place of reflection within his theory, about which writers have expressed varying views. For example, McWhinney (McWhinney 2005:28) describes *Learning II* as ‘reflective knowledge.’ However, since Bateson’s writing about *Learning II* emphasises enacted changes, this raises the question of whether reflection represents instead a movement in a different direction, as it were, laterally not vertically. For example, he referred explicitly to ‘a stance at the side of my ladder… to discuss the structure of this ladder’ (Bateson 2000:308), which suggests that cognitive reflection such as written discussion of the theory is to be distinguished from the type of learning that is ‘on’ the ladder (Bateson used this metaphor of a ‘ladder’ to refer to the framework of levels).

For the same reason, there seems to be a good case for differentiating between a third sense of ‘learning to learn’, Argyris and Schön’s (1978) concept of ‘double loop learning’, and Bateson’s *Learning II*. Double loop learning involves questioning the goals or values being pursued through action. Whereas single loop learning is concerned to improve the methods by which one pursues a goal, double loop learning reviews the goal itself, or the values associated with it. It is essentially a cognitive process. Indeed Argyris and Schön themselves distinguished double-loop learning from ‘deutero-learning’, the term coined originally by Bateson (2000:167) and later abandoned by him in favour of *Learning II* (2000:248-9). While Bateson and Argyris both built on cybernetics, Visser (2007) suggests that their divergence may echo their different understandings of Ashby’s work. According to Harries-Jones (1995:114) Bateson was especially keen to challenge the emphasis on control by original Macy conference participants such as Ross Ashby (Ashby 1965) and Norbert Wiener.
(Wiener 1965), whose work led to that branch of cybernetics that is concerned with artificial intelligence and control systems.

If we pursue this distinction between Argyris and Bateson, *Learning II* could be seen to represent a fourth sense of ‘learning to learn’. Bateson referred to *Learning II* as ‘learning to expect some sort of context’, commenting that ‘I equate that with the development of becoming test wise in experiments. That if you subject a human being or animal to experiments of a general sort, that subject becomes more skilled at dealing with contexts as it were.’ (cited in Ray & Govener 2007:1028). Visser (2007:665) reaches a similar conclusion in his review of the concept of deutero-learning, which:

‘…, refers to the behavioral adaptation to patterns of conditioning at the level of relationships in organizational contexts. This form of learning is continuous, behavioural-communicative, and largely unconscious. It tends to escape explicit steering and organizing.’

Similarly, Snyder’s (1971) notion of the ‘hidden curriculum’, cited as an example of *Learning II* by both Bredo (1989:33) and Engeström (2001:138), refers to the tacit expectations and rules for success of formal educational contexts, of which the teachers themselves may be unaware but which they also reinforce. ‘Savvy’ students are quick to discern and orientate to the hidden curriculum. Mary Catherine Batson offers a related example:
‘I grew up being told that if I burned myself I should put butter on the burn. Then at a certain point they told me, no, don’t do that, put the burn under running water or even better put ice on it. Not only had I learned one version of how to deal with a burn, but in the process of learning that, I had also been learning about who to believe, about the nature of validity and authority.’

(Bateson 2005:18-19)

Bateson’s writing about *Learning II* also conveys its embodied and aesthetic nature. Bateson placed much emphasis on the epistemological importance of art and the aesthetic, both generally in his writing (Harries-Jones, 1995: 14), and specifically with reference to apprehending relations between the levels of learning: ‘…art is commonly concerned with… bridging the gap between the more or less unconscious premises acquired by *Learning II* and the more episodic content of consciousness and immediate action’. (Bateson 2000:308). Bateson saw aesthetics, which has received recent interest in the field of Human Resource Development (Gibb 2004), as enabling people to extend beyond the limitations of explicit, conscious knowing. His interest in the aesthetic dimension of learning appears significant and worthy of further exploration, as discussed at length by Charlton (2008). This contrasts, for example, with the metaphor of ‘man as action scientist’ that is espoused by Argyris (Argyris, Putnam, & Smith 1985), which emphasises intentional, cognitive inquiry into contexts and their ‘governing variables’. Similarly, Mezirow’s emphasis on critical reflection as the route to transformative learning (e.g. Mezirow 1991) neglects the
embodied and aesthetic modes that are implicit in Bateson’s theory, as well as explicit in his writing.

APPRAISING BATESON’S THEORY

Bateson’s theory of levels of learning has influenced and been discussed by thinkers in fields including education (Bloom 2004; Brockbank & McGill 1998; McWhinney & Markos 2003; Peterson 1999); organisational learning and change (Argyris & Schön 1978; Bartunek & Moch 1994; Engeström 2001; French & Bazalgette 1996; Roach & Bednar 1997; Tosey & Mathison 2008; Visser 2003, 2007; Wijnhoven 2001); and psychotherapy and personal development (Bandler & Grinder 1975; Dilts & Epstein 1995; Keeney 1983; Watzlawick, Weakland, & Fisch 1974). Typically, these authors have found Bateson’s emphasis on qualitatively different types of learning evocative (McWhinney 2005:26) and stimulating.

It also remains enigmatic. He did not develop his theory as far as he might have done; according to Bredo (1989:36), the levels of learning are ‘properly viewed as a framework and not an elaborated theory’. There is relatively little critique that engages directly and in detail with Bateson’s theory. McWhinney (2005:25), drawing on neuro-physiological findings, interestingly argues that there is ‘a neurological explanation of the difference between LI and models of LII and LIII’; yet this work ‘does not support a typological difference between LII and LIII’ (sic). Instead McWhinney portrays Learning III as a temporary letting-go of existing assumptions about reality and causality, after which a person typically resumes more stable but
modified patterns of Learning II. This reformulation could reduce the risk that Bateson’s levels are seen as a simple hierarchy.

The centennial of Bateson’s birth, in 2004, prompted reviews of his intellectual contribution in general, manifesting for example in special issues of two journals ‘Cybernetics and Human Knowing’ (2005) and ‘Kybernetes’ (2007). Thomas, Waits and Hartsfield (2007:872) report that the majority of Bateson’s citations in the SSCI (Social Science Citation Index) are in the field of business and organization management, and affirm that his radical contribution is revered by many. Yet Ivanovas (2007:848) argues that Bateson’s ideas ‘have not really become paradigmatic’, because his underlying ecological approach has been ignored or misunderstood while his concepts have been assimilated into linear ways of thinking.

A major intellectual development that is relevant to Bateson’s thinking in general is the ‘Santiago Theory of Cognition’ by the Chilean academics, Umberto Maturana and Francisco Varela (e.g. Maturana & Varela 1998). Capra (1996:170) comments that:

> The central insight of the Santiago theory is the same as Bateson’s – the identification of… the process of knowing with the process of life. This represents a radical expansion of the traditional concept of mind… the brain is not necessary for mind to exist.’ (Capra 1996:170).

Bateson’s view of Maturana and Varela’s position is discussed in Harries-Jones (1995:183-191). Where Maturana and Varela depart from Bateson is that they regard the idea of a hierarchy of logical types, on which Bateson theory of levels of learning
is based, as a property of human consciousness. Capra suggests that Bateson regarded these types as existing objectively in the world, and concludes (1996:300) that this hampered Bateson from developing further insight into the nature of mind. Maturana and Varela’s ideas, and their implications for Bateson’s theory of levels of learning, represent one direction for future research.

CONCLUSION AND KEY LEARNING POINTS

Gregory Bateson’s theory of ‘levels of learning’ has influenced a variety of writers on education, management learning, and psychotherapy. Yet Bateson’s writing is complex, due to the issues of epistemology that he was attempting to explore and elucidate. His ‘Mind and Nature’ (1979) is the most accessible of his books. As Mary Catherine Bateson comments, ‘Every effort to know about knowing involves the cat trying to swallow its own tail’ (foreword to Bateson 2000:xii-xiv). This means that what appears at first glance to be a straightforward, logic explanation leads rapidly into a recursive world, like a hall of mirrors.

While this can be daunting, we have also typically found it rewarding, and we believe that Bateson’s theory offers a worthwhile and radical perspective on issues of workplace learning. Engeström (2001) argues that theories of learning are too often focused on the individual and identifies Gregory Bateson’s ‘levels of learning’ as one of the few theories that attempts to address this problem. According to Bredo, simultaneous theoretical consideration of content and context is uncommon: ‘Learning theorists tend to focus on individual task learning independent of social context, while socialization theorists focus on the effects of social context.'
independent of the task.’ (Bredo 1989:27). Bateson’s theory combines the two; or perhaps more accurately, does not separate them epistemologically.

Bateson’s theory may also account for some of the subtleties and paradoxes of workplace learning, for example such that attempts to promote Learning I can produce contrary Learning II. We have explored its possible application to issues of workplace learning, and have suggested that it can help to distinguish between variations in the sense of ‘learning to learn’.

Key points about Bateson’s theory are:

- It offers a simultaneous theoretical consideration of content and context. Learning, like ‘mind’, is relational; learning is both individual and social.
- Contu et al (2003) criticise the discourse that promotes ‘learning’ as unquestioningly a good thing, which Bateson’s theory avoids. Bateson argues that learning can have desirable and undesirable effects. It may be wise to be wary of the apparent attractions of the idea of ‘transformation’, since Learning III, for example, entails significant risk.
- The extent to which managers or Human Resource developers can choose or determine the type of learning that arises in workplaces is limited, as is the capacity to bring about Learning II and Learning III instrumentally.
- Bateson’s theory emphasises that learning involves embodied experience and aesthetics as well as cognition.
Acknowledgements

We wish to thank Deborah Durrant, who kindly gave permission to use the consultancy example in this chapter.
Learning IV  `…would be change in Learning III, but probably does not occur in any adult living organism on this earth.’

Learning III  …is change in the process of Learning II, e.g., a corrective change in the system of sets of alternatives from which choice is made.

Learning II  `…is change in the process of Learning I, e.g., a corrective change in the set of alternatives from which choice is made, or it is a change in how the sequence of experience is punctuated.’

Learning I  `…is change in specificity of response by correction of errors of choice within a set of alternatives.’

Learning 0  `…is characterised by specificity of response, which – right or wrong - is not subject to correction.’

Table 1: The levels of learning, adapted from (Bateson 2000:293)
References


Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. 2004, *Should we be using learning styles? What the research has to say to practice* Learning and Skills Research Centre, London.


Moon, J. We seek it here...a new perspective on the elusive activity of critical thinking: a theoretical and practical approach. EScalate Discussion Series . 2005.


