Stage theory and Wilber's holarchy: pathways for deeper consciousness

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ABSTRACT

Stage theories and Wilber's holarchy model act as a template for a discussion on a possible route for the emergence of the spiritual Self. Critical in this process is the need to engage with certain types of experiences in preparation for spiritual development. Reference is made to the power of objectivity in western culture and how that can hinder the journey. The paper provides an account of how Gregory Bateson's model of learning and Ken Wilber's holarchy are being used in units of study at the University of Sydney, Orange, to provide students with an insight into the development of their self-knowledge and how this connects with the wider world.

1. Introduction

Steps are a useful metaphor on life. They suggest the movement from one state to another, from that which we are currently engaged with to something new and different. While the existence of steps enables humans to move through different levels on a physical plane the sense of steps aiding our movement in emotional or spiritual terms is less known, and yet steps or stages surely exist. The paper broadly explores the presence of stages in our life through an examination of Bateson's categories of learning, Charkaborty's stress model, and Wilber's holarchy. The primary focus, however, is on Bateson's categories of learning and the limitations associated with moving from one category to another. A central concept is that of one stage nesting within another or a higher stage transcending but including that which precedes it. To return to the step metaphor, as we ascend the steps of development the completed steps concertinas in and becomes part of the new.

2. An overview of Bateson's categories of learning

In 1973, United States biologist/philosopher Gregory Bateson wrote *Steps to an Ecology of Mind* in which he outlined the parameters that determine four categories of learning. Bateson based his premise on structural logic. His defines learning as an action which denotes change (Bateson, 1973:283). *'Change itself'* he states, *'denotes process and processes themselves are subject to change'*.

Bateson builds onto this definition with his assertion that all learning is stochastic (i.e. involves trial and error). To quote Bateson further (p287):

an ordering of the processes of learning can be built upon a hierarchic classification of the types of error which are to be corrected in the various learning processes. Zero Learning will then be the label for the immediate base of all those acts (simple and complex) which are not subject to correction by trial and error. Learning 1 will be an appropriate label for the revision of choice within an unchanged set of alternatives: Learning 2 will be the label for the revision of the set from which the choice is to be made; and so on.

These theories enable Bateson to formulate a number of categories of learning:

- Zero Learning all acts that are not subject to correction,
- Learning 1 revision of choice within a given set of alternatives,
- Learning 2 revision of sets from which the choice is to be made,
- Learning 3 revision of set of sets.

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2.1 Zero Learning Category

The key to Bateson's definition of zero learning is that of 'minimal change' and, 'absence of trial and error'. At Zero Level there is no change but simply a blind acceptance of life as it is. What is obviously absent from this mindset is a propensity to frame and ask questions. At Zero Learning, 'learning' responds automatically to impulses. The factory knock-off whistle sounds and a person responds to the signal automatically without the need to think about that response. It is a conditioned response.

2.2 Learning 1 Category

Learning 1 is at the operational level of decision-making. It involves selecting from a given set of alternatives in responding to an event in a particular way. It represents a form of learning that enables thought processes to be acted out in operational terms. An often quoted example is that of a simple boiler and thermostat, where the thermostat senses the temperature of a given space, and sends a signal to the boiler to go off or on when its high or low limits are reached. The boiler responds to the thermostats information, and the thermostat responds to the fluctuating temperature. The only task here is to be as efficient as possible within the given tolerance or set of information given.

In a community we act like a boiler/thermostat when we obey commands unquestioningly. We are given a job to do and we do it. We don't question procedures, norms or values. In certain circumstances this is a perfectly appropriate way to respond to the environment. At other times it can be quite limiting leading to increased inefficiencies.

Learning 1 can be regarded as complying with the acquisition model of education where students learn large chunks of relevant information and are generally tested on their understanding of this via the examination mode. The instrumentalist function of Learning 1 has its origins in the positivistic scientific paradigm that in itself has its origins in the thoughts of Descartes and Newton. At this level, knowledge is external to the student, removed, objective. The student perceives the world as being separate from himself/herself. A separateness exists between student and knowledge. While understanding the objective world is an essential part of learning it is questionable whether it should dominate virtually to the exclusion of an understanding of the subjective world. This issue will be discussed further in Section 5.00 although the notion of subjectivity and role of self-knowledge in learning is a major focus of Learning 2.

2.3 Learning 2 Category

Learning 2 has a different feel about it. It feels more potent and analytical and more comprehensive. To quote Bateson (p304):

If I stop at the level of Learning 2, I am the aggregate of those characteristics, which I call my 'character'. I am my habit of acting in context and shaping and perceiving the contexts in which I act. Selfhood is a product or aggregate of Learning 2.

It would appear, therefore, that while Learning 1 is concerned about the objective external world, Learning 2 is concerned with understanding oneself. From this it is possible to hypothesise the existence of the following philosophical parameters:

- A firm belief in the assumption that knowledge is about attributing meaning to the world including
 oneself, rather than seeing knowledge as a commodity which exists independently of people and as
 such can be stored and transmitted; and
- Strong support for the notion that education is about the development of the whole person rather than one's intellectual potential.

These parameters indicate a different approach to education. It views learning as a process where a person tests his/her theory out on the world in order to make sense of that world. Process means engagement between theory and practice and is dependent on trial and error procedures. In the process of making sense of the world and of building information into one's constructs, change occurs, which in itself leads to development of self. Through this process, learning takes place. The sense of discovery underlying this approach hints of a constructivist approach to learning where students construct their reality. The need to explore and to experiment suggests a preparedness to engage in what Argyris (1985) refers to as double loop learning where assumptions and beliefs are continually challenged and reviewed. The metaphor that emerges is one of change and growth where the old is continually inspected and perhaps tested.

2.4 Learning 3 Category

According to Bateson Learning 3 is difficult to describe. It is, he believes (p301):

something of the sort that occurs from time to time in psychotherapy, religious conversions, and in other sequences in which there is profound reorganisation of character.

Learning 3 is defined as a change in the process of Learning 2, i.e. a corrective change in the system of sets of alternatives from which choice is made (Bateson,1973). From this description, it seems to imply choosing between those sets of factors that influence the paradigm we are working from at Learning 2. In this sense it is difficult to see Learning 3 in operation and equally difficult to find the words to describe it. In fact, as Bateson says (p302): 'according to Zen Buddhists, Occidental mystics and some psychiatrists these matters are totally beyond the reach of language'.

An important aspect of Learning 3 is the extent that self is no longer of significance. Self is highly functional in relation to Learning 2 but not Learning 3. Bateson illustrates this point as follows (p304):

To the extent that a man achieves Learning 3, and learns to perceive and act in terms of the contexts of contexts, his self will take on a sort of irrelevance. The concept of self will no longer function as a nodal argument in the punctuation of experience.

Bateson appears to suggest that once we go beyond the context of personality and start to look at the increasingly broader contexts than our personality, the whole aspect of self becomes irrelevant. In doing so, one becomes released as Bateson puts it from 'the bondage of Learning 2'. At this level (Learning 3) we see the world as if for the first time without the lens and preferences of the personal self. We view it from a holistic viewpoint in which 'personal identity merges into all the processes of relationships in some vast ecology or aesthetics of cosmic interaction'. Learning 3 is best put into perspective by Bateson in his quotation of Blake's words as recorded in the *Auguries of Innocence* (p306):

To see the World in a Grain of Sand, And Heaven in a Wild Flower, Hold Infinity in the palm of your hand, And Eternity in an Hour.

3. Relationship with Chakraborty's Model

Professor Chakraborty from the Indian Institute of Management, Calcutta writes in *Managerial Transformation* by Values (1993) about management and leadership from an Indian perspective. Chakraborty identifies this perspective as being self/spirit oriented versus the Western paradigm of being ego/matter oriented. This western perspective aligns with the Stress box in the following figure.

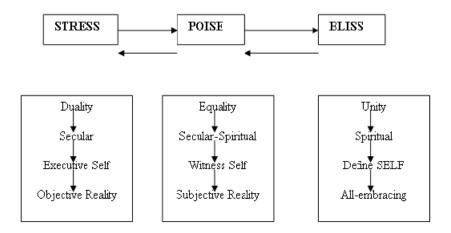


Figure 1: Chakraborty's (1993) Model of Stress Management

Chakraborty model demonstrates the source of Stress and how a movement towards unity can alleviate this Stress and lead ultimately to a state of Bliss. The Objective Reality pathway and the presence of duality are

equivalent to Bateson's Learning 1. In secular education, and also in church based education where the emphasis is on understanding the objective world as distinct from understanding one's relationship with the objective world, the tendency is to create a stressed outcome. According to Chakraborty (1993:36) "...lower self or consciousness, is necessarily embedded in dualities or *dwandwas*. The latter comprise various opposites like success and failure, praise and blame, acceptance and rejection, and gain and loss. Being sucked in and pulled apart by the endless dualities of such nature is what is called stress".

The movement towards Subjective Reality in Figure 1 is akin to Learning 2. According to Chakraborty (p.36) 'the witness self stands above the dualities as a spectator with a measure of equality'. In educational terms this relates to processes designed to make people aware of their assumptions and beliefs. Processes that are experientially based and encourage students to be self-directed in their learning are typically Learning 2. Chakraborty's third category, with such words as unity, spiritual, Divine-self and All-embracing Reality, resonate with the characteristics expressed by Bateson's Learning 3.

It appears that a major shift in consciousness occurs between each of the categories with the awakening of the spiritual self in the middle stages of the Chakraborty-Bateson models blossoming into a total embrace of spirituality in the final stage.

The models formulated by Bateson and Chakraborty are useful maps for charting a pathway for development of spirituality. Both models comprise three main stages with each successive stage demonstrating a movement towards unity. It suggests, therefore, that spiritual evolvement requires the development of a secular-spiritual understanding of self as primary stages in the evolution of one's spirituality. The notion of steps or stages of development comply with a body of research known as Stage Theories.

4. Stage Theories

Stage theories posit the movement from one stage to the next. As a person grows or matures, his or her worldview tends to go through a predictable sequence of changes. These represent discrete steps along a stairway of human development:

As each step is taken, a new self emerges with a new way of constructing the world and the new inner experience of the world results in a new way of expressing ideas, feelings, and purposes. At each step, the corresponding world view deeply influences what the person chooses to see, and how he or she interprets and reacts to what they see (Torbert, R., Meron, K. & Fisher, D.1987: 257-273)

Torbert et al maintain there are in fact a number of key propositions common to development theorists:

- 1. The order of development implies an invariant hierarchical sequence in which each more evolved world view represents a more adequate understanding of the world than prior world views (Kohlberg, 1969).
- 2. Individuals holding more evolved worldviews tend to have developed greater cognitive abilities and conceptual complexity than those holding earlier world views (Harvey, O., Hunt, D. & Schroder, H,D. 1961; Loevinger, 1976)
- 3. As one matures developmentally, one becomes increasingly able to:
 - (a) accept responsibility for the consequences of one's actions;
 - (b) empathise with others who hold conflicting or dissimilar world views; and
 - (c) tolerate higher levels of stress and ambiguity (Bartunek, 1983)
- 4. The person holding a more evolved world view tends to be more attuned to his or her own inner feelings and outer environment than the person holding an earlier world view (Loevinger, 1976).

There appears to be a high correlation between these key propositions and what has been stated in this paper so far about Bateson's learning categories. Both the Bateson and Chakraborty models emphasise the importance of moving from objective reality to subjective reality as key components of spiritual development. In so moving a person will pass through stages of development and will tend to view the world differently at each stage. The Learning 3 worldview is vastly different from Learning 2, and Learning 2 from Learning 1. They represent, in fact, distinct paradigms of thought. Whilst the categories are distinct they are not separate but

tend to lie nested within each other. Learning 1 lies nested within Learning 2 and Learning 1 and Learning 2 within learning 3. This nested notion is explained further by Wilber (1996).

5. Wilber's Holons and Holarchy

To explain an evolutionary overview of life and humankind's emergence Wilber (1996) uses Koestler's concepts of holons and holarchy. A holon refers to an entity that is itself a whole but is simultaneously a part of some other whole. For example, an atom is part of a molecule, and the molecule is part of a whole cell, and so on. Each of these entities is neither a whole nor a part, but a whole/part, a holon. Each holon has to maintain its own wholeness its own identity, its own autonomy, its own agency (Wilber 1997). According to Wilber (p21) "the characteristic of a holon, in any domain, is its agency, its capacity to maintain its wholeness in the face of environmental pressure which would otherwise obliterate it. This is true of atoms, cells, organisms, ideas."

Each of the holons exist within a hierarchy referred to by Wilber as a holarchy. A natural hierarchy is simply an order of increasing wholeness such as particles to atoms to cells to organisms, or, letters to words to sentences to paragraphs. In the context of Bateson's and Chakraborty's categories in their respective models each in turn bears a relation to that which precedes it. In fact the whole of one level becomes a part of the whole of the next (Wilber, 1996). This is a tenet that Wilber maintains is central to the evolutionary process and indeed even to the hierarchy existing in ideas - that each emergent holon transcends and includes its predecessor. To quote Wilber:

Another way to express this is – all of the lower is in the higher but not all the higher is in the lower" or: "at a given level of hierarchy, a particular system can be seen as an outside to systems below it, and an inside to systems above it; thus the status of a given system changes as one passes through its level in either an upwards or downwards direction.

To translate this back to the language of stage theory the lower levels of each stage are not disconnected to the next stage in the hierarchy but lie nested within it. Stage 2 of any hierarchy cannot be arrived at unless Stage 1 is experienced and once experienced it is then possible to journey towards Stage 2. Stage 2 of course lies nested within Stage 3 but the passage into Stage 3 is dependent upon experiencing Stage 2. It is not possible, according to stage theory or Wilber's holarchy, to leap-frog a stage. In other words learning about the objective world is an important stage in one's spiritual evolution however that evolution does not happen unless the individual explores one's inner self. A commonly used term for this is to develop one's emotional intelligence (EQ) as a pathway to the development of one's spiritual intelligence (SQ)

One of the advantages of Wilber's holarchy model is that it is organic rather than mechanistic. Each level of the hierarchy has its own purpose in addition to existing to enable its successor to operate at its own level. The concept of nested levels creates a rich image of purpose and direction. There is an image of growth and development – as one develops so does it feed the existence of its successor.

6. Barriers to development: Between stages or Levels

6.1 Moving from Learning 1 to Learning 2

Each divide between Bateson's categories represents a significant change from its predecessor. In the language of Wilber each category of learning is a holon; in the language of Thomas Kuhn each category is a paradigm. Holons have definite characteristics that define the level; paradigms represent distinct patterns of thought. Learning 1 is learning about the external world, the objective world. The epistemological structure here is a positivistic one where truth is assumed to be measurable and transferable (Easterby-Smith, 1991, p.25).

The pattern of thought associated with positivism has been a powerful and some would say an insidious one in its impact on the world. Polish philosopher with a first degree in engineering Henryk Skolimowski refers to objectivity in science as meaning (Skowlimowski, 1994:148): "clinical detachment and dispassionate forms of observation, the forms of perceptions that atomise phenomena that we investigate." Skowlimowski refers to this as the Yoga of Objectivity, which he believes has been relentlessly practiced in Western schools and academia. To Skowlimowski the Yoga of Objectivity consists of a set of exercises specific to the scientific mind. These exercises are practised over a number of years, sometimes as many as fifteen before the mind becomes detached, objective, analytical, clinical, 'pure'. Skowlimowski maintains that the Yoga of Objectivity is a (p148) "gentle form of lobotomy" where "the scientific view of the world and the objective cast of mind mirror each other". The pattern of thought is a powerful one which constantly receives reinforcement and encouragement from the culture in which it exists.

Quinn (1988) states the same point in a different way. He refers to it as schizmogenic thinking. The term schismogenesis refers to arguments, theories, or perspectives that are broken or split at the outset. One or two opposing but connected values are chosen over another. When a person seeks to pursue a goal or to explain or make sense of a phenomenon a logical set of abstractions is constructed. This kind of thinking he maintained, defines away contradictions and eliminates paradoxes. Quinn maintains that while this type of thinking is useful in pursuing a goal, it also produces a one-dimensional mental set that tends to blind to emerging cues that require another perspective. In the context of Learning 1 the focus remains settled on the virtues of the objective frame, leaving those subjective type qualities, which are central to Learning 2, ignored. Wilber however, voices the most vitriolic concern about the dominance of objective thinking in the Western world in his book *A Brief History of Everything*. He refers to the followers of objective thinking as residents of 'flatland'. The explanation of life in flatland is based on his model of validity claims.

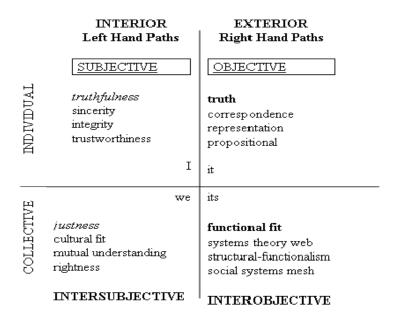


Figure 2: Wilber's (1997:107) model of validity claims.

Wilber explains (1997:88) that "everything on the Right Hand, are objects or exteriors that can be seen empirically, one way or another, with the senses or their extensions – microscope, telescopes, photographic equipment, what not. They are all surfaces that can be seen. They are all simple locations. You don't have to talk to any of them. You just observe their objective behaviour. You look at the behaviour of atoms, or cells, or populations, or individuals, or societies, or ecosystems......the Right Hand aspects are basically monological, which means they can be seen in a monologue. You don't have to get to their interiors, at their consciousness." Wilber argues that there is nothing wrong with the Right Hand empirical and scientific paths but that they are "not the whole story" (p89). In effect Wilber is making the point that there is not one truth called the objective truth but three other truths as well and most importantly the subjective and intersubjective truths have equal weighing. In reality though, according to Wilber (p88), you "find a war between these two [subjective - objective] equally important, but rarely integrated, approaches."

Wilber maintains that the western world has become proficient at developing an understanding of the parts – of differentiation – but in doing so has lost the art of seeing the whole – of integration. Wilber explains a pathway or a map, which leads to holistic outcomes. This map resembles elements of Bateson's Categories of Learning and in order to understand the difficulty of moving from Learning 1 to Learning 2 it is necessary to explore the Bateson model further.

In describing Learning 1 we did so using Wilber's Right Hand Pathway and Skowlimowski's Yoga of Objectivity. In moving to Learning 2, however, we need to adopt a different language and a different set of models and skills. Take Wilber's description of the Left Hand Pathway, for example, which he refers to as I (Upper Left) and We (Lower Right). Their qualities include:

I: consciousness, subjectivity, self, and self-expression (including art and aesthetics); truthfulness, sincerity.

We: ethics and morals, worldviews, common context, culture; intersubjective meaning, mutual understanding, appropriateness, justness.

These qualities compare with the Right Hand or *It* Pathway and its emphasis on objective nature and propositional truth. In effect what emerges from the embrace of Learning 2 is provision of not only models and tools, which are of an intrapersonal and interpersonal type, but a context which enables their application to the Right Hand Pathway or *It* world. For example, as we listen to the debate on genetic modified food or on the uranium debate we hear arguments that pertain to the instrumentalist function of the issue rather than hearing a debate that might explain the issue from the framework of *I* or *We* consciousness. By not providing sufficient weight to the moral and aesthetic issues, which emerge from Wilber's Left Hand column, we run the risk of introducing ideas that are not in the long-term interest of humankind, not to mention other forms of life. Therein lies the real danger. Skowlimowski sees the next stage (one removed from objective consciousness) as critical to survival of the species: compassionate consciousness. While Skowlimowski does not agree that we need to reinvent the human at the species level (as Thomas Berry does) he does believe that (p165) "compassionate consciousness will be an integral part of the new human being if we do proceed with reinventing ourselves on the species level."

This raises the question of how to move from Learning 1 to Learning 2. My thesis is that it is dependent on two realisations. The first realisation concerns the need to understand that movement from one paradigm to another is not to be understood as a simple first-order change process (Levy, 1986) involving some minor adjustments. It is of a much larger order referred to by Levy as second-order, which may lead to a major readjustment of one's life. In moving from one state of being to a much broader state, that is implied in the movement from Learning 1 to Learning 2, we need to manage the transition that will occur. This is illustrated by Bridges (1991) who refers to transition as the psychological adjustments that need to happen when moving from one state or stage of life to another. If the transition is not managed Bridges maintains the change is less likely to succeed. In such cases the default mechanism is a return to the old (in this case Learning 1 or Wilber's *It* world). The second realisation is drawn from Wilber holarchy model and the notion of each holon emerging from that which created it evolving qualities that cannot be defined or described by that which created it.

Wilber describes how atoms led to the formation of molecules but molecules have emergent qualities that cannot be predicted by the nature of atoms. Wilber maintains the same applies to any form of holarchy whether it is physical, biological or abstract. What Wilber maintains, and this can also be understood from the language of Stage Theories, is that as holons emerge what is created is a greater capacity to understand contexts, and contexts of ever increasing complexity. In other words Learning2 is a holon that emerges from Learning 1 and includes Learning 1. It has its own emergent qualities, and yet, since Learning1 lies nested within the properties of Learning 2, the characteristics of Learning 2, broadly speaking, have not been lost. Some of the values may have been challenged and modified, however the role of objective knowledge in life is still appreciated. Its role is simply now understood in a broader context.

What needs to be noticed about Bateson's categories of learning is that the more feeling or values based quality of Learning 2 is an emergent quality arising from the objective empiricist based Learning 1. Since its realm is the interior or subjective qualities of being human it is less tangible then Learning 1 and cannot be measured with the same degree of certainty that exists for Learning 1. This has significance to the next transition – from Learning 2 to Learning 3.

6.2 The transition from Learning 2 to Learning 3 or from the compassionate human to the spiritual human

Learning 3 is difficult to describe particularly when Bateson suggests that words are incapable of capturing the essence of Learning 3. It is beyond words where a degree of connectedness emerges that create a whole new body of awareness. This transcended state is explored further with reference to Wilber, Chakraborty and Assagioli.

According to Wilber (1996) as holons emerge - as they have from single cells right through the various stages (holons) leading to the emergence of humankind - what is brought into existence are holons with increasing depth: the greater the depth the greater the consciousness. In other words a cell has greater depth than a molecule, which has greater depth than an atom. In relation to humans Wilber (p198) maintains:

we have already seen identity shift from matter to body to mind, each of which involved decentering or a dis-identifying with the lesser dimension. And by the time of the centaur [latest stage of human development], consciousness is simply continuing this process and starting to dis-identify with the mind itself, which is precisely why it can witness the mind, see the mind, experience the mind. The mind is no longer merely the subject; it is starting to become an object. An object of....the observing Self, the Witness.

What Wilber is describing is the next stage in the evolutionary process. The observing Self or Witness is referred to by Assagioli as the stage of super consciousness where the **S**elf (transpersonal state) is seen as a separate entity but connected to the personal **s**elf. This relationship is described in his egg shaped diagram of consciousness (refer to Assagioli, 1986). Chakraborty drawing on the Bhagavad Gita makes reference to the relationship between the SELF: self in Figure 1 but missing from this model is an explanation of how stages of the model connect and emerge from each other. This relationship is neatly provided by Wilber's logic of holons and holarchy.

What is apparent from the Stage Theory and Wilber's emergent holon theory is that *it is not possible to jump a stage*. Each stage lies as a component of the next and is foundational in moving to the next. This suggests that in order for people to arrive at Learning 3 they must in the first instance explore Learning 2. As Learning 2 is explored what emerges are the conditions that will enable the emergence of Learning 3.

This can be explained in terms of the metaphor of a block of apartments (Cochrane, 1996) Imagine that each floor represents a category of Bateson's model. The ground floor is Zero Learning, floor 1 is Learning 1, floor 2 is Learning 2, and floor 3 is Learning 3. As we move up the floors via the stairs (it takes time and effort) we negotiate an engagement with each floor. At Learning 1 there is tremendous attachment to the objective world. That attachment is reinforced by the culture of society but particularly the education system. To move from Learning 1 into Learning 2 in such a way that the emergent qualities of Learning 2 are apparent the apartment dweller needs to remain open to the new and different elements that emerge in the new and strange environment. In the soft world of emotions, feeling, and values, there is a different emphasis where shades of grey are tolerated and welcomed. Once all the elements of Floor 2 are embraced - its soft furnishings, its subtle colours, its aesthetics, its view - and the virtues of Floor 1 with its functionalism and rationalist focus are appropriately in place and respected, the time may well be ripe for an advance on Floor 3. The aura of Apartment 3 can be felt in Apartment 2 – hence the attraction, but it cannot be sensed in Apartment 1. As it permeates through into the awareness of Apartment 2 inhabitants it engenders a passionate drive to enter the stairwell towards Apartment 3. Once at Apartment 3 the view surpasses all. Connections can be seen that hitherto remained out of 'sight' to those who dwell on the lower floors. What is apparent to the traveller who has made it to the top floor is that the virtues of each floor have not been lost but are included in the vision created by the spiritual values that emerge. These values relate to beauty, courage, joy, love, hope, and will to name a few.

7. Working with Bateson's and Wilber's models

I have used Bateson's model and Wilber's model strategically to inform the emergence of the Spirituality, Leadership and Management Network and to assist in the design of a curriculum of study at the University of Sydney, Orange campus on Ecological Agriculture. Both initiatives, as outlined below, demonstrate the power of the models.

7.1 The role of Bateson's model in the development of the inaugural SLaM conference in 1998

Bateson's categories have played an important role in my life. My studies of them during the period 1991 - 1997 led ultimately to the first Spirituality, Leadership and Management conference held at the University of Western Sydney, Hawkesbury in 1998. The purpose underlying the initial decision to organise a conference was to explore whether the three categories existed in reality. The hypothesis was that the conference would attract those in our community who operate at Learning 2 and have a feel for Learning 3 or those who dwell in Learning 3 and operate at all three levels of Bateson's categories. Two hundred and fifty delegates came to the conference from Australia and New Zealand to participate in a conference that explored the spiritual, as distinct from religious, context of life. That conference, and others that followed, generated such a response that they led, ultimately, to the creation of the Spirituality, Leadership and Management Network Ltd (www.slam.net.au). In fact the actual wording of the Network reflects the major categories of Bateson's model, as explained; Spirituality (Learning 3), Leadership (Learning 2), and, Management (Learning 1). In effect the spirituality of SLaM Network Ltd embraces and directs the leadership of SLaM Network Ltd that in turn

embraces and directs the management of SLaM Network Ltd - in keeping with the notion of a nested hierarchy.

7.2 How delegates to the first conference viewed spirituality, leadership and management!

A survey was conducted at the first SLaM conference to determine delegates understanding of spirituality and how it might impact on leadership and management. Of the 33 surveys returned (i.e. 15%) 95% indicated that they either embraced more inwardly focused disciplines such as Buddhism and Hinduism, or connected with no distinct discipline at all. Only 5 % indicated a strong connection with conventional Christianity. The conference delegates had a clear impression of their notion of spirituality as expressed in Table 1.

Question: What do you understand by spirituality?

The consciousness that connects the creator and the created.

The complex and personal journey taken by many incorporating relationships with land, with other humans and with self.

My inner belief system, my soul i.e. the essence of my being, driven by my heart as well as by logic. It has come about through inculcation, nurturing, learning, culture, family. Needs to be practised, nurtured.

A sense of higher consciousness.

A feeling of unity with nature and people. A meeting of minds and souls.

The consciousness of a relationship between the micro and the macro that goes on to infuse one's actions with growing love and commitment to justice for all creation.

I see God everywhere in every living thing. My church is the earth and the cosmos.

My feeling is that spirituality is the drive within the soul to lead a good life aligned with its purpose and core values. To understand this one needs to understand oneself, the soul, and be prepared to transform oneself.

Table 1: Responses to a survey conducted at the 1998 Spirituality Leadership and Management Conference, University of Western Sydney, Hawkesbury.

The emphasis on unity in the responses to this question suggests that the sample represents the Learning 3 end of the Bateson learning continuum. The survey then sought to clarify delegates understanding of the relationship between spirituality and that of leadership and management. The responses as outlined in Table 2 suggest that the connection is quite clearly defined and that such a connection is vital for wise governance.

Question: What do you see as the connection between Spirituality, Leadership and Management?

Without spirituality there is no integrity. All else is reduced to ego and power. It can help people transcend the self.

Working for a cause which transcends self and organisation interests.

It brings maturity, balance, wisdom, sustaining and nurturing values.

Very important in creating a positive, inclusive, necessary approach to management.

Spirit can encourage decision-making that acknowledges 'the whole' and which respects all players. Leadership with a consciousness of spirit would mean serving others and not the other way around.

The issues of today's society can only be solved at the spiritual level.

It is there already but devalued by materialistic scientific hegemonic thinking. Reclaiming spirituality from religion and re-linking it to life itself and our values.

Spirituality provides the missing link.

Table 2: Responses to a survey conducted at the 1998 Spirituality, Leadership and Management Conference held at the University of Western Sydney, Hawkesbury.

7.3 The application of Bateson's and Wilber's models in tertiary studies

Bateson's categories of learning is one of a number of models explored by students studying the post-graduate unit Managing Change at the University of Sydney Orange campus. The purpose of the assessment task is for students to develop a richer understanding of themselves on the premise that self-knowledge is a fundamental requirement for change management. Their answers demonstrate that the model helps them to analyse their lives, particularly in relation to Learning 1 and Learning 2, as demonstrated in the following sample:

Applying Bateson's categories of learning to my learning life suggests that I have been wasting valuable learning time during much of my life. Much of my time seems to have been spent in Learning 1 and not enough time in Learning 2. The metaphor of the fourstory apartment block is wonderful. The keys to Apartment 2 are certainly available to me and I know I should be spending more time up there, but I just don't seem to allow myself enough time to find the lift and to use it to my advantage...by combination of good luck and intense cramming I scraped into a veterinary science degree. At the time it was a course with a very full syllabus devoted entirely to the acquisition of facts and practical skills, which a veterinarian would need in private, or government practice. Despite the request of various students, there was not room available for the study of non-veterinary subjects in other faculties. Study seemed to be entirely stuck in Bateson's Learning 1. Each subject was narrowly devoted to its own discipline with its interrelationship to other disciplines ignored. Even once our studies returned to individual species, there was still a tendency to view each body system as an individual entity rather than look at the entire animal in a holistic sense. Where were the discussions on animal welfare and animal experimentation, the ethics of modern animal productions systems or the development of interpersonal skills, which are essential and integral to our work within society? Perhaps if there had been more opportunities to rise to a higher level of learning during the course then the professional lives of many of my former colleagues would have taken different paths. If the stage theory applies then the new graduates would leave university more mature with a more evolved worldview. More would be participating in the profession, or at least they may be better able to cope with the levels of stress encountered in the workplace.

Now that I am learning more about learning, a recent mailout from the University of Sydney Post Graduate Society is very timely. W.P. Howey (2002), reflecting on the desirable traits of veterinary graduates, refers to the Attributes of Australasian Veterinary Graduate as follows – they would include Professional Integrity and Duty of Care, Effective and Empathetic Communication, Business Management, Capacity of Self-Management and Self-knowledge, Ethical Standards, Adaptability, Leadership and Change Skills and an understanding of Sustainable Agriculture. These are mostly Learning 2 outcomes, which also embraces Learning 1.

The Bachelor of Land Management (Ecological Agriculture) course at the University of Sydney Orange campus contains units of study that encourages the exploration of the various levels of learning as outlined by Bateson. Learning 1 units include those that equip students to manage the external world (*Plant Systems, Management, Financial Analysis and Planning* etc.), Learning 2 units embrace intrapersonal and interpersonal management units (*Managing Yourself & Others, Managing Change*), and at Learning 3, which is harder to define in terms of units of study, the course offers an *Applied Studies* unit which enables those students who wish to explore the relationship between spirituality and ecology to study amongst other references *The Quest*, which is a set of notes published by the Findhorn Foundation. Students also explore elements of spirituality in the unit *Human Ecology* which uses Franjit Capra's book *The Web of Life* as a text.

In addition to formal studies students keep a portfolio in which they document the evidence of learning in relation to nine graduate capabilities that we expect students to achieve by graduation. Students submit the portfolio at the end of their third year of study and are then interviewed by an industry representative and an academic to evaluate the claims made in the journal. This is a reflective practice that facilitates the development of a holistic overview of the curriculum. I don't lay claim to it enabling students to reach into Bateson's Learning 3 but it certainly enables students to develop a richer picture of themselves and their abilities.

8. Conclusion

Bateson's model of learning, together with Chakraborty's and Wilber's models, might, metaphorically speaking, be regarded as pathways to deeper knowledge. According to their models the movement is from a tangible measurable empirical world into one of forms, images, feelings and emotions, and ultimately into spirit. The models broadly suggest that the pathway to spirituality is via self-knowledge and that the latter precedes the former. This fits with Wilber's tenets of holarchy although Wilber does indicate that he is talking in broad generalities and that it is difficult to be too prescriptive on such matters. It is fair to say, however, that a person who is exploring their self-knowledge will more likely be mentally prepared to accept the images and language of spirituality than a person who embraces a positivistic empirical paradigm. In effect, Learning 3 is more likely to be understood by Learning 2 people rather than those at Learning 1. One of the barriers to entry into Learning 2, and from there into Learning 3, is the dominance of a highly critical, analytical mind and its lack of preparedness to open-up and accept that which cannot be measured in tangible ways. It is not that the spiritual world cannot be experienced; it is that the ways it can be studied do not conform to the standards and guidelines that are commonplace in empirical research. Until human beings are able to move into different states of consciousness, as implied by the models stated in this paper, it is doubtful that the human species can ever achieve its true potential.

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