

Rationality, the Affective and the Wound

This paper explores three underlying psycho-spiritual imperatives which have affected mechanistic science, and how they have contributed to the depiction of consciousnesses and intelligence as mechanistic, brain-based, and consisting primarily of linguistic, mathematical and abstract operations. The consequent rejection of integrated, transcendent and spiritual depictions of consciousness and intelligence is thus also examined. Futurist Sohail Inayatullah's Causal Layered Analysis is used to deconstruct the relevant texts and discourses.

1. General introduction

The primary purpose of this paper is to identify three underlying psycho-spiritual imperatives which underpin the "temporary victory" (Foucault, 1984) of the dominant mechanistic representation of science and consciousness, and then to specify the ways in which these have led to a restriction of representations of consciousness and intelligence in contemporary science and the western world in general. These imperatives are:

- The rejection of inner and transcendent space.
- The elevation of rationality to the pinnacle of intelligence in modernity.
- The rejection of the affective.

While I have identified other such imperatives previously, this paper will confine itself to these three only. (1)

What is integrated intelligence?

There are many differing conceptions of consciousness (other civilisational ways of knowing), which have been silenced in the wake of

the seemingly ineluctable hegemony of the scientific/mechanistic worldview. Many of these depict consciousness as being integrated into a universal whole. Just a few include Sarkar's cosmic mind (Inayatullah, 2002b); Chardin's omega point (de Chardin, 1976); Lao Zi's Tao (Jiyu, 1998; Zhengkun, 1995); Meister Eckhart's "eye of God" (Lang, 2004); Dossey's non-local awareness (Dossey, 1999, 2001); and the cosmic consciousness of Bucke (1991) and Kubler-Ross (1997). Within this paper, this transpersonal and cosmic depiction of consciousness will be described as "integrated intelligence", as outlined below.

Depictions of integrated intelligence vary somewhat within texts, and nowhere is it explicitly referred to by the term "integrated intelligence." Integrated intelligence is a transpersonal intelligence that transcends the boundaries of the individual. It is in effect a collective human and universal intelligence. Historically it has most commonly been depicted in spiritual and mystical texts and forms a part of all mystical traditions. In ancient cultures such as the Roman, Greek, Egyptian, Chinese, Indian and Tibetan, integrated intelligence was an implicit aspect of their worldviews. (Grof, 1995) Many indigenous cultures, both contemporary and past, also incorporate integrated intelligence into their ontologies. (Grof, 1995, 2000; Lawler, 1991; Pearsall, 1998). As Dossey (1999) writes:

The idea that the human mind is infinite or nonlocal - that at some level it cannot be confined to specific points in space, such as the brain and body, or in time, such as the present, is ancient. (Dossey, 1999)

Integrated representations of consciousness typically differ in fundamental ways from mainstream/mechanistic representations of consciousness. These differences are found not only in their philosophical and intellectual delineations, but also in the essential cognitive processes that underpin their use. It is these differences that are seminal to understanding why integrated intelligence has been

largely ignored in the scientific age, while instrumental rationality has been valorised. (Sardar, 1998)

Integrated intelligence, as defined here, is comprised of two distinct domains. The first is higher order perceptions of the wholeness and integration of the cosmos; what Wilber calls the subtle, causal, and non-dual aspects of consciousness. (Wilber 2000a, 2000b, 2000c, 2001) This is the direct experience or perception of the integrated nature of the universe and consciousness, and normally manifests itself as a transcendent sense of wholeness and connectedness, but may also involve visionary, and auditory components. Domain one integrated intelligence has been described in numerous spiritual and mystical traditions such as Christian mysticism, Sufism, Tantra, Buddhism and the Kabalistic tradition. Domain two integrated intelligence includes the experience and/or deliberate employment of various "paranormal" perceptual phenomena such as ESP, clairvoyance, and transcendent visionary experience; what is commonly referred to as the "psychic" realm. (Jacobson, 1997; Targ and Katra, 1999, 2001; Wilber, *ibid*; Wilde, 2000) These two domains of integrated intelligence sometimes occur together, but not always. Yet they both suggest an intelligence and consciousness that extends beyond the brain and is integrated with the cosmic whole.

2. The integrated/fragmented mind model

Definition

The integrated/fragmented mind model follows mystical and transpersonal theory/experience (Bucke, 1991; Gebser, 1985; Grof, 2000; Hawkins, 2002; Jacobson 1999; Nisker, 1998; Walsh & Vaughan, 1993; Wilber, 2000c) which states that there are both rational/ego-based and transrational/transpersonal states of mind. In Wilber's and

Gebser's models (ibid.), consciousness evolves from pre-personal and undifferentiated modes, through to rational and ultimately to transpersonal modes.

As used here, the term "the integrated mind" features the conscious mind in awareness of its essentially non-localised and universal nature. Concurrent with this is the experience or knowledge of externalised "influences" on the mind, including mystical, deific, spiritual and stygian. Fragmented consciousness, conversely, is the state whereby the conscious mind is unaware of its non-localised, transpersonal nature, and is dissociated from any genuine awareness of universal or spiritual consciousness. It is characterised by the mind's drive to perpetuate its state of separation, by a need for control and power, and to deny death and impermanence. (Grof, 1995; Krishnamurti, 1987; Wilber, 1999, 2000c)

Causal Layered Analysis

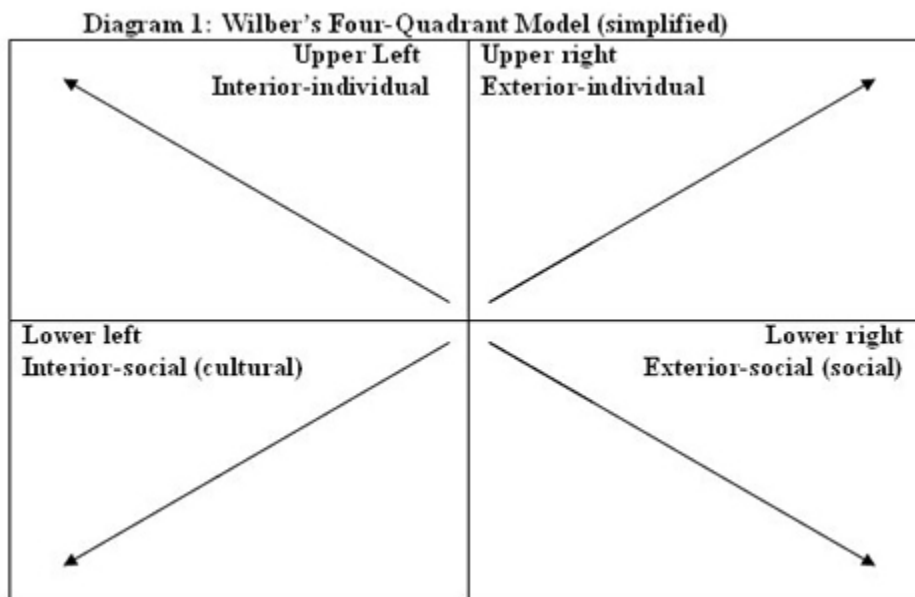
Futurist Sohail Inayatullah's Causal Layered Analysis (CLA) is the poststructuralist method that is utilised within this paper. CLA is a means to conduct inquiry into the nature of past, present and future. It problematises the present and the past, allowing the possibility of alternative futures to emerge. (Inayatullah, 2002a)

The purpose of CLA is to elucidate the deeper meanings imbedded within texts via the application of four specific components, and to allow the acknowledgement of other ways of knowing. (ibid.) The first level of CLA is the "litany", which examines the rational/scientific, factual and quantitative aspects of texts. The second level - the social/systemic - deconstructs the economic, cultural, political and historical components. The third level of CLA explores the discourse/worldview of texts, identifying the deeper social, linguistic, and cultural structures. The final component of CLA is the

mythical/metaphorical level. This reveals the hidden and explicit mythologies, narratives, symbols and metaphors contained in texts. This includes any emotional, unconscious and archetypal dimensions. (ibid.)

Six types of representations of consciousness

The discussion on the three influential psycho-spiritual imperatives below, incorporates six kinds of textual representations of mind into its considerations, thus encapsulating the civilisational and other ways of knowing that are crucial to a more inclusive understanding of the world. (Broomfield, 1997; Bussey, 2000; Inayatullah, 2002a; Sardar, 1998; Wilber, 2000a, 2000c) Each type can be explicated as falling within one or more quadrants of Wilber's (2000a) four-quadrant model, as shown in very simplified form in Diagram 1, below.



Adapted from Wilber (2000c): inside cover.

The four quadrants incorporate the individual/collective, and the interior/exterior aspects of consciousness and cosmos. Using Wilber's map, it can be seen that the depictions of consciousness in western texts in the modern era have tended to exclude the interior, left-hand

quadrants. This is the domain of integrated intelligence, the awareness of knowledge of the transpersonal as experienced via an inward focus of mind.

Type 1: Indigenous

Many indigenous cultures held (and many still hold) strong beliefs about the integrated nature of human consciousness and the universe. Indigenous cultures employed a type of integrated intelligence in their healing and shamanic practices, which hold to a connection with the forces of nature and the supernatural realms. (Grof, 1994, 2000; Lawlor, 1991; Pearsall, 1999: 59; Walsh, 1990) (2)

Type 2: Ancient and medieval

Many ancient and medieval cultures had strong beliefs in gods and various psychic potentials of human beings. Strongly transpersonal aspects can be found in the cultures of the ancient Greeks, Buddhism, Taoism, The Kabbalah, Tibetan Vajrayana, Sufism, Christian mysticism, the various forms of yoga and many others (Grof, 1985, 1994, 2000). The ancients and people of the medieval era often employed tools such as prayer, breath control, meditation, and movement meditation for inducing non-ordinary states of consciousness, which are closely associated with integrated intelligence. (Fox and Sheldrake, 1996; Ross, 1993; Wilber, 2000a)

Type 3: The mechanists

In the wake of the enlightenment, science rejected the concept of inner stages of consciousness (Wilber, 2000a: 65), modernist thought tends to posit intelligence and consciousness within mechanistic and localised dimensions, the right-hand side of Wilber's model. Thus mainstream depictions of consciousness (within psychiatry, cognitive

psychology, artificial intelligence theory, the general modern debate on consciousness, biological science etc.) mostly fall into this category. Quite often modernist science fails to acknowledge consciousness at all, preferring to focus upon empirical and measurable aspects of consciousness such as behavior and neuro-physiology. (Blackmore, 2001; Capra, 2000; Grof, 1985, 2000; Ross, 1993) Within these texts rational and empirical tools predominate. Statistical and normative analysis is common, such as factor analysis. Psi phenomena, including integrated intelligence are usually ignored, and often ridiculed by proponents of mechanistic consciousness.

Type 4: Postmodernist and poststructuralist

Postmodernism retains the detachment and intellectualism of type three texts, but problematizes the epistemological foundations of science and knowledge in general. The postmodernists' methods - analysis, genealogy, distancing, deconstruction - are reductionist methods which break things into their constituent components, and solidify the observer and object/subject split which proponents of integrated intelligence see as necessary to transcend for deeply intuitive perceptions to occur. (Broomfield, 1997; Dossey, 2001; Hayward, 1984) Further, postmodernist relativism is unable to genuinely accommodate hierarchical dimensions of consciousness, reducing transrational cognitive modes to "other ways of knowing". (Wilber, 2000c)

Type 5: Critical spirituality

Within type five texts, integrated intelligence (and Wilber's interior quadrants) is acknowledged theoretically, or even incorporated into the map, but without extended experiential references or an adequate range of effective tools that might facilitate the employment of direct personal understanding of integrated intelligence. At a practical level

integrated intelligence thus remains an aside to the dominant rationalist discourse, but with increasing relevance. Generally speaking, to use Wilber's (2000a) terms, there is a lack of the actual employment of the interior cognitive modes.

Type 6: The mystics

Type six texts are those texts that focus upon spiritual and mystical subject matters, and tend to rely heavily upon esoteric and spiritual methodologies, Wilber's (2001) "eye of spirit". Wilber's interior quadrants are included, and at an experiential level. Type six texts incorporate three sub-groups.

Popular "new age" texts feature a strong tendency to valorise the spiritual, and in particular psi and so called "paranormal" phenomena. Rationality is played down, or even demonised. (e.g. Kubler-Ross, 1997; Myss; 2001; Walsch, 1999) (2) The second group is the "non-dual/critical" texts, which employ an expanded array of spiritual/consciousness tools over type five texts, such that integrated intelligence is valorised *above* rationality, transcending it. Rational tools are still employed, but their limitations are identified. (e.g. Bussey, 2000; Hawkins, 2002; Nisker, 1998; Wilber, 2000c) The third sub-group is the "non-dual/mystical" texts, in which domain one integrated intelligence and the spiritual are valorised, whilst both domain two integrated intelligence, and intellectualisation in general are seen as being of limited value. (e.g. Bucke, 1991; Jacobson, 1991; 1999) These texts focus upon the inner/collective domain of Wilber's model, with common emphasis upon expanded non-dual states of consciousness.

3. Three psycho-spiritual imperatives of fragmented consciousness and their effect upon integrated intelligence

3.1 The rejection of inner and transcendent space

The rationalists versus the empiricists

The enlightenment debate between the rationalists such as Descartes, and the British empiricists such as Thomas Hobbes, and John Locke established a precedent that is still influential in consciousness and intelligence theory in the contemporary world. (Gardner et al., 1996: 33) Locke and Hume argued that the contents of the mind could be explained entirely in terms of sensory inputs. Their argument was predicated upon the idea of the mind as "tabula rasa" or a blank slate, with the environment determining mind and personality. (Ross, 1993: 115)

Kant adopted aspects of both camps. (Gardner et al., 1996: 35-36) He emphasised a non-material representation mind. Yet he also held the view that knowledge was dependent upon sensory experience, although he claimed that the ways that this knowledge is acquired is innately determined. Kant's insistence that one had to retreat into individual separated thought in isolation from cultural and societal influences was also influential, especially in later developmental psychology, such as Piaget's. (Gardner et al., 1996: 35-36; Kant, 1784.) In general it encouraged individualism and a fragmented state of mind: Wilber's (2000a) inner/individual domain, but without the inner/collective - "inward, but not "beyond".

Significantly, both rationalists and empiricists failed to consider the possibility of intelligence being universally integrated or transpersonal. This assumption underpinned several dominant conceptual imperatives of psychology in the twentieth century (Bussey, 2005), where constructivism, behaviourism, and social interactionism all, to some degree, saw development and intelligence as predominantly a process of interaction between an isolated ego/self (interior social) and the

physical and/or social environment (the exterior, right-hand quadrants); a process mediated via the physical senses.

A divine reason

The enlightenment continued the process of rationalisation of the western mind which had begun with the ancient Greeks (Buckley, 2001; Brumbaugh, 1981; Huff, 2003) and which had been cemented by the "rational" theology of Augustine (AD 354-430) and the scholasticism which he deeply influenced, especially in the philosophy of St Thomas Aquinas (AD 1225-1274). (Fox, 1988; Ross, 1993; Wilber, 2000c: 372)

Scholasticism dominated Christian theology from approximately the years 1000 to 1500. Its prime method was the *scholastica disputatio*, whereby faith was subjected to reason via questioning and evidence. The dominant way of knowing here was analysis via questioning, disputation and the requirement of evidential procedures, thus cementing a process which can be seen in psychology and educational processes in the west to this day. The influence of scholasticism on the western mind cannot be underestimated: it formed the foundation of all schooling and university education up till the twentieth century. (Rohmann, 1999: 353). Notably, the scholastics leant heavily on classical philosophers, especially Aristotle. The early Church fathers. (ibid.) Copernicus, Galileo, Tycho Brahe, Kepler, and Newton were all products of the procrustean and scholastic universities of Europe. (Huff, 2003: 344)

A crucial and related point is that the philosophy and ways of knowing of Augustine and the scholastics denied the earth and the body, and once again this ultimately deeply affected psychology and contemporary education. For, as argued by Jung (1989) and Wilber (Wilber, 2000c: 349-354), in denial of the psyche and body, ascent into transrational realms of consciousness becomes difficult, as

integration with the lower domains of the psyche (the shadow) is needed for an integration with the transcendent.

Wilber (2000a, 2000c) argues that the enlightenment philosophers believed in the great Chain of Being, where human beings were nested in a hierarchical order of consciousness which spanned the undifferentiated prepersonal realms through to the rational and ultimately to the cosmic. (Wilber, 2000a: 225-226; 2000c: 420-421) However there is a crucial distinction that Wilber points out. The existence of such higher realms of reality was merely "postulated" to exist by these philosophers. It was a "rationalised" hypothesis, an assumption, which helped to explain the "gaps" between God and humanity. (Wilber, 2000c: 421) These spaces were depicted as "other" and rendered effectively unreachable. Yet to the originators of such conceptions, such as Plotinus, Dionysius and Eckhart these were human potentials which could be actualised. (Wilber, 2000c: 421-422).

Thus along with access to the integrated consciousness of the inner mind, modernity lost the capacity to perceive the whole, including the indivisibility which had been such a notable aspect of mystical insight. (Kafatos and Kafatou, 1991; Nisker, 1998; Wilber 2000c) Although philosophical reflection as practiced by the enlightenment philosophers is a type of "inner" cognitive process, it is fundamentally different from the "inner" process of mystical insight. The former is essentially rational and intellectual, and occurs in ordinary states of consciousness. Yet the latter requires a focus upon awareness itself, and away from thoughts and feelings. It is not an intellectual process. (Shear & Jevning, 2002: 190-191)

Confusion of mind-content and mind-transcendent awareness

There is an important distinction between self-reflective thinking, and transcendent knowledge. (Shear and Jevning, 2002) Christian mystic

Meister Eckhart knew this when he stated that: "If I knew myself as intimately as I ought, I should have perfect knowledge of all creatures." (quoted in Lang, 2004) Eckhart's comment points to a vital aspect of integrated intelligence - that an inner awareness can lead to a transcendent knowledge. (Kafatos and Kafatou, 1991) Pointing out that perception of transcendentia requires a focus upon awareness itself, and away from thoughts and feelings, Shear and Jevning (2002) write that:

$\frac{1}{4}$ even awareness of one's own most private, internal thoughts and feelings is still external to one's awareness itself, for they appear *to* one's awareness, in from of one's 'mind's eye', so to speak, and the inward referred to here is intended to indicate a complete reversal of attention, away from thoughts and feelings as much as from external objects, back into *awareness itself*. (Shear & Jevning, 2002: 191)

It is this kind of inner focus, moving away from both external objects and internal sensations, images and thoughts, that the mystics claim produces the experience of a deeper awareness of "the ground, structure, and dynamics of consciousness" (Shear & Jevning, 2002: 190) which lies beyond ordinary thought.

Western philosophy followed the lead of Descartes' "I think therefore I am" , which led to the emergence of Cartesian egoism. (Ferrer, 2002) Descartes introspection was crucially different from that of introspective meditative traditions, both east and west. For Descartes' was an *identification* with the world of thought and ideas, not a transcendence of them. According to Hawkins (2002) this identification is a typical function of the modern mind which works primarily within the limits of rational consciousness. (Hawkins, 2002) Hawkins states that individuals working at the rational level of consciousness development tend to "become infatuated with concepts

and theories and end up missing the essential point." (Hawkins, 1995: 71)

Various spiritual and mystical traditions teach that it is the attachment to thoughts, feelings and sensations which entraps the individual in the world of "the mind" and the ego. (Ferrer, 2002; Jacobson, 1999; Ross, 1993) In eastern philosophy this is said to lock one into the world of atman, and its quests for conquest and immortality. (Wilber, 2001: 116-117) The fundamental question of the rational philosopher was "Who am I," but the Buddhist turns the question away from self and asks "Who are we?" (Nisiker, 1998: 214), thus universalising the process and moving it beyond the bounds of the fragmented ego and mind-content cognition. Indeed the Hindu phrase "*Tat tvam asi*" (sometimes interpreted as "I am that") in effect means: "I am this whole world" (Kafatos & Kafatou, 1991: 236). It is thus an identification not with the small ego, but with the cosmos, the transcendent, and the divine.

Thus while Descartes and the rationalist philosophers of the enlightenment generally acknowledged mind-content cognition, they failed to acknowledge mind-transcendent perception, which is a fundamental predicate of the awareness of integrated and transrational consciousness.

This tendency can still be seen in many contemporary depictions of consciousness and intelligence. The identification - and indeed fixation - of modern science with the mind-content and intellectualising focus of philosophy and academia (thus the name "doctor of philosophy") embeds its very practices in an ego-fixated world of the small self, of the atman. The world of science and academia requires no deep introspective/transcendent cognitive modalities in the processes of its research, and thus the first person view of consciousness, and intuitive/integrated knowledge that it engenders has been largely

removed from scientific and post-modernist space. This represents a restriction of intuitive and integrated ways of knowing.

The reduction of consciousness to micro-processes in the brain

The rejection of inner worlds in modern science has contributed to the reduction of mystical experiences to micro-processes in the brain, and we see this all too uncritically in popular science. In a scene from the BBC television series *Brainstory*, neurobiologist Susan Greenfield claims that all conscious experiences and "even our deepest spiritual experiences" are all ultimately explicable "in terms of brain phenomena." (BBC, 2001: episode 1). At one point Greenfield thus reduces the "intense spiritual feelings" of a woman to "malfunctions" in the frontal lobes. (ibid.)

In the popular magazine *Newsweek* (Begley, 2001), neurologist D. James Austin is described as having had a "mystical experience" as he waits for a train in London:

... suddenly (he) felt a sense of enlightenment unlike anything he had ever experienced. His sense of individual existence, of separateness from the physical world around him, evaporated like morning mist on a bright dawn. He saw things "as they really are," he recalls. The sense of "I, me, mine" disappeared. "Time was not present," he says. "I had a sense of eternity. My old yearnings, fear of death and insinuations of self-hood vanished. I had been graced by a comprehension of the ultimate nature of things." (Begley, 2001: 41)

Despite the quintessential "spiritual" nature of the experience, Austen refuses to describe it as such. Instead he takes it "as proof of the existence of the brain." (ibid.) Austen predicates this view on the belief that "all we see, hear, and think is mediated or created by the brain." (ibid.) The interpretation of the experience, "reasoned" (ibid.)

in mechanistic terms, is predicated upon neurology, and specifically the argument that the cessation of "certain brain circuits" - the amygdale, the "parietal lobe circuits," and the "frontal and temporal lobe circuits" - creates the illusion of the experience. (ibid.) The employment of the machine/computer metaphor is readily apparent in the term "circuits".

With Greenfield and Austen, the invalidation of spiritual and integrated experiences of consciousness is readily seen. Yet the reductionist argument that the micro-processes are dominant over the macroscale perceptions themselves, is an assumption which often goes unquestioned in modern science. (Bloom, 2001) Developments in chaos and systems theory suggest that micro-systems cannot be fully understood without reference to the nature of the entire system. (Bloom, 2001; Bradley, 2004; Capra, 2000; Grof, 1985, 1992, 2000; Laszlo, 2004)

Other civilisations acknowledged inner knowledge

While the development of science in the West focused more and more on rationality and externalities or "surfaces" Wilber (2000a, 2000c), other civilisations throughout history have developed epistemologies which acknowledged or even valorised the inner world and its intuitive perceptions. In China for example, Lao Zi's philosophy allowed for an inner knowing:

We hammer wood for a house,

But it is the inner space

That makes it livable. (quoted in Broomfield, 1997: 78)

Turning attention elsewhere, we can see similar themes repeated in a variety of cultures and traditions. Within the Buddhist and Zen traditions, withdrawal of attention from the senses, and towards a

mind-transcendent perception is an essential aspect of the training of the bodhisattva (Zen student). (Cleary, 1999) Similarly, in the Hindu tradition, the Yoga and Samkhya schools believe that rational intelligence dominates only as long as spiritual insight remains dormant. (Ross, 1993: 150-151). Significantly, the Yoga tradition sees identification with the cosmos (externalities, materialism) as the source of suffering. The goal of knowledge is thus liberation of the mind's identification with the material world, not to explicate the workings of nature and the cosmos. (ibid.) The inner or mystical approach can also be found in the writings of early Christian mystics such as St Teresa of Avila, in the Hebrew *Kabbalah*, and in the cultures the ancient Romans and Egyptians. (Kafatos & Kafatou, 1991:193).

Indigenous cultures have also featured well-developed inner worlds, such as the dreaming of the Australian Aborigines (Lawler, 1991; Wildman, 1996), the shamanic and spiritual traditions of the Native Americans, Siberians, and Polynesians (Broomfield, 1997: 56) and Japan's Seiki-Jutsu. (Osumi & Ritchie, 1988).

While such spiritual traditions contain profound differences amongst themselves, specific contrasts in these civilisational ways of knowing from scientific methodology can be seen in the withdrawal of attention from the senses, and union with the transcendent, divine or nature. Conversely, scientific method focuses upon sensory knowledge gleaned via the separation of observer and object/subject, and generally rejects the idea of the divine or transcendent consciousness.

3.2 Rationality as the pinnacle of intelligence in modernity

Modern science and the rationalist hegemony

Contemporary intelligence theories generally assume that abstract, linear and sequential conceptualisation is the pinnacle of the

development/evolution of intelligence. Examples include Piaget (2001) (the scientist as model learner); Jensen (1998), and Herrnstein and Murray (1994) (IQ rendered in rational, linguistic and logical terms); and implicitly in the scientific writings of de Glasse Tyson (2001) and Kaku (1997) (super-sensory man with aid of technology). This tends to be a given within the discourses, a dominant conception which has become largely implicit and thus unconscious and unchallenged. Implicit also within this framework is the idea that intuitive perceptions, emotions, and all inner impulses that are non-rational are either of a lower denomination of intelligence, or are simply not important. Wertsch and Polman (in Torff & Sternberg, 2001: 58) write:

From this perspective intuitive knowledge is understood in terms of being homegrown (i.e. spontaneous or everyday...) and not grounded in the principles of abstract, logical organisation that underlie schooled discourse and thinking. (Wertsch & Polman, in Torff & Sternberg, 2001: 58).

The modern education system perpetuates this valorisation of the rational because of its focus upon short-term economic and social goals. (Moffett, 1994). Loye (2004a) points out that the "pseudo-Darwinian Mind" has so dominated education in the wake of Darwin, that schools have become mainly "factories for the training and survival of the fittest." (ibid: 30) This has led to the valorisation of IQ and (in the United States) SAT scores as the "the highest aspect of human achievement." (ibid:)

The mystical insight methodologies of spiritual and mystical practice are not valorised, acknowledged or practiced in such a system, thus retarding virtually all potential for the cultivation of integrated intelligence. The widespread and often adhoc use of computers and technology, seemingly implemented under the belief that information processing and intelligence are synonymous, only adds to the

fragmentation and distraction of mind. (Oppenheimer: 2004) Young people are rapidly losing the capacity to process and cross-index sensory data, primarily due to the bombardment of the mind with the constant noise of modern technology and entertainment media, coupled with a significant absence of nurturing stimuli because of too-busy adult caregivers. (Walker, 1998) Such a system produces myopic visions focused on ego-centred agendas, and economic and technological utilitarianism bereft of genuine humane and spiritual values. (Moffett, 1994) An example of the latter is that of physicist Michio Kaku (1997), who paints a future dominated by machines, technology, and materialism, with few references to human interaction, let alone spiritual insight. (Anthony, 2003; Kaku, 1997)

A linguistic snobbery

The alleged superiority of abstract conceptualisation and reason that appears in western and scientific thought can be viewed as a type of snobbery. Former indigenous hunter Tjinman Murinbata (in Murinbata & Whitehead, 2002) reports with some indignity:

Some anthropologists have described the way I think as primitive, emotional, concrete operational, primary process, child-like, or pre-logical. (Murinbata & Whitehead, 2002).

The key here is that Murinbata, a so called "stone age hunter," is perceived as being at a lower evolutionary scale of thinking than Western logical/analytical thought.

The dominant western position places abstract rationality atop the cognitive ladder. de Glasse Tyson (2001) states that many scientific concepts: "don't make much sense to scientists ...until they acquire a new and higher level of 'common sense' from long study of the math and physics of the universe." (de Glasse Tyson, 2001: 87) In these

representations it is the Western scientist/intellectual who is placed at the summit of the scale, just as it implicitly is in Piaget's model of cognitive development. (Gardner et al., 1996) In this sense consciousness and intelligence theorists make the same mistake as the nineteenth century phrenologists and eugenicists, who adapted Darwinian thinking to social anthropology, and concluded that Western, white European upper classes were at the highest rung of the evolutionary ladder of intelligence. (Gardner et al., 1996)

Various theorists positing an evolutionary model of consciousness have depicted rationality and "egoic" consciousness as occupying a convergent space on the map of consciousness evolution. Numerous theorists such as Ferrer (2002), Hawkins (2002), Jung (1989), Moffett (1994), Targ and Katra (1999), Tart (1993, 2001), and Wilber, (2000A, 2000B, 2000C, 2001), argue that consciousness is evolving and expanding into higher levels. In these conceptions logic/rationality is but a phase of consciousness development, and not the pinnacle of consciousness, as is implied within the methodology of science and academia because its reliance upon reason. The dismissal of all non-rational forms of perception as lower and inferior may well turn out to be a form of intellectual snobbery that (ironically) retards the development of the understanding of transrational consciousness in the Western world.

The valorisation of abstraction

In mechanistic science, abstraction is valorised, while other ways of knowing are downplayed or rejected. When Newton published his theory of gravitation in the late seventeenth century, his use of the animistic and sexual term "attraction" led to its slow acceptance. (Sheldrake et al., 2001: 32) In the modern age of science, the tendency towards abstraction is epitomised by Tom Wilke's statement that the Human Genome Project is an "attempt to find out how to spell

"human." (quoted in Sardar, 1998: 218) In Wilke's conception, it is the reduction of "human" to a codified representation that is real, not the experience of being human itself.

Wildman (1996) states that in the present Western epistemology, words like "apprehension," "allure," "allude," and "myth" are often seen negatively, or even as misconceptions. Meanwhile words like "apperception" are almost unknown, whereas words like "comprehension" and "perception" are celebrated as facts. (Wildman, 1996: 18-19) Wildman writes:

¼it is almost as if there has been a conspiracy to repress those extant abilities in the language to repress direct intuition of wisdom through the mind of the symbol. Rather we see unprecedented emphasis in favor of the mind as the ratio. (ibid.)

Wildman points out that ninety per cent of indigenous cultures are non-textual, and have no written language, and have thus suffered tremendously in the wake of mechanistic science's insistence upon abstraction. (ibid) He writes:

¼the net effect of Western obsession with (hyper) textuality and literacy has been the ascendancy of the mind of the ratio and the genocide of the indigenous, often matriarchal, relational cosmologies based on the world mind of the symbol...the tendency of limiting the meaning of science and technology to its narrow Western 'textual' rationality. (ibid.: 19)

Western "hyper-textuality" effectively creates, via its representational abstractness, an inerrant separation from the things that are being perceived, and from the world itself: the classic observer and object/subject dualism of modern science. It can be assumed that this exacerbates the condition of the fragmented mind,

which in turn retards intuitive perception and knowledge, because (as has been argued), it is the collapse of the observer and object/subject dichotomy, and a deep sense of relationship with the world and all things within it, that is at the heart of integrated intelligence.

3.3 The rejection of the affective

Emotion and intuition discarded

Implicit in the dominance of rationality in the scientific age is the downplaying or even discarding of emotional and affective ways of knowing. It is widely believed in modern society that IQ and intellectual ability are more important than emotional intelligence, leading to its social undervaluing. (Goleman, 1996, 1998: 6)

Hollinshead (2002) finds that since the mid-seventeenth century humanity has subsisted on "a limited mental modality in which emotion and direct experience of reality are suppressed," including the "non rational or non existential modes of consciousness." (Hollinshead, 2002). Similarly Ross (1993) writes that twentieth century psychology is "a dogma of feeling avoidance for oedipally frustrated male academics to hide behind." (Ross 1993:116)

Various theories of consciousness and intelligence downplay or even completely ignore the affective. Piaget's developmental psychology, one of the most influential of the twentieth century, ignored the affective, focusing on the development of logical and mathematical cognition. (Wilber, 2000A: 22-23)

The rejection of the affective must inevitably retard intuitive acuity, as the latter can be seen as a subset of the former: intuitions involve a subtle sense of feeling. There is a crucial connection between numinous experience and feelings. Storm (1999) points out that one of the prime

factors required for a psi-conducive environment is an "increased awareness of internal processes, feelings, and images." (Storm, 1999: 264) Jung (1973) also realised that an "affective" component was required for the meaningful integration of numinous experiences. (Jung, 1973) Cambray (2002) writes that the interpretation of Jungian-type synchronicities and mental images becomes meaningful "when these symbols are accessed by consciousness and experienced affectively." (Cambray, 2002: 418.). The spiritual, the numinous and the meaningful are closely correlated with the affective components of human cognition, and thus with the experience of an integrated intelligence.

The story of the cold hospital

The contemporary hospital stands as an apt metaphor for science's fear and rejection of the affective domains of cognition and life in general. The isolation of babies at birth, a common practice until the last decades of the twentieth century, mirrors the separation and dualism of the Newtonian billiard-ball world of separate, hard, discrete objects. In the Monty Python movie *Meaning of Life*, John Cleese - acting as a doctor - parodies this perfectly. After delivering a newborn baby, he slaps it on the backside, sterilizes it, and, holding it at arms length proclaims: "Then finally we isolate it!" before thrusting it rudely into an isolation chamber. This is Wilber's (2000c) universe of "its", the product of a science which rejects all inners, mistrusts subjective states, and distances itself from feelings; a science which sees itself as separate and isolated from nature and the universe. It is the cosmos of the fragmented mind.

Thanatologist Elizabeth Kubler-Ross (1997) echoes a similar theme when she relates the time she attempted to communicate her concerns about the lack of empathy in modern medicine to her medical students - she brought a dying 16-year-old girl (Linda) into the lecture theatre.

Kubler-Ross reports that the medical students became uncomfortably quiet when the dying girl was introduced to them. The students could only manage to ask Linda technical questions about "her blood count, the size of her liver, her reaction to chemotherapy and other technical details." (ibid.: 132) Notably they were unable, or unwilling to ask questions about Linda's personal feelings. Finally it was the dying girl, exasperated and angered by the students' lack of compassion and empathy, who posed and then answered the questions she had hoped her doctor (and the students) would ask, but never had. Kubler-Ross reports how, at the end of Linda's talk, the normally unimpressed students were in a "stunned, emotional, almost reverential silence", and most were moved to tears. (ibid.: 133) Kubler-Ross leaves no doubt that the emotional reaction of the students was "in fact due to an admission of their own fragile mortality." (ibid.) It was the first time they had truly acknowledged "feelings and fears about the possibility, and inevitability, of their own death." (ibid.)

Here Kubler-Ross not only highlights the denial of the affective in modern medicine and science, but suggests that it is the fear of death that underpins this denial. Conceptions of one's own mortality most commonly involve a denial of the "feelings of anger, fear, and sadness" (Marrone, 1999: 509) that are associated with the idea. This is seen in Freud's terror of "staring into nothing" (Zilboorg, quoted in Ross, 1993: 122); in Macbeth's archetypal fear of a "life...signifying nothing" (Shakespeare, 1994: 101); and in dying microbiologist Darryl Reanne's (1991) realisation that many of the neuroses of modern life are an attempt to anaesthetise of the fear of death. (Reanne, 1991).

Mystical experience and the affective

Intuitions, including mystical intuitions (and thus perceptions from integrated intelligence) are at least in part "affective" and reliant upon feelings. It is the verb "to feel" which occurs again and again in deep

spiritual and numinous experiences. Kubler Ross (1997) "felt" the pain of all those she had helped to die in her experience of "cosmic consciousness." (Kubler-Ross, 1997: 217-224) Neuro-physiologist Austen "felt a sense of enlightenment unlike anything he had ever experienced" during his transcendent experience. (Begley, 2001: 41.) Hawkins "would feel an exquisite energy" within himself, as his consciousness was being gradually transformed. (Hawkins, 1995: 297) Michael Talbot, "felt a sudden compulsion" to reach out and grab a book, which launched his life-long passion for researching the interface between physics and mysticism. (Talbot, 1992: 137-138) Further mystic Stuart Wilde employs an intuitive process whereby he "projects feelings" into distant objects and people, as a means to garner knowledge about them. (Wilde, 1993, 2000)

4. The wound at the heart of the world

Various critics point to the mechanistic paradigm as being at the heart the shortcomings of modern science. (Capra, 2001; Davies & Gribbin, 1992; Fox & Sheldrake, 1996; Goerner, 2004; Grof, 1985, 1992, 1995, 2000; Hawkins, 2002; Kafatos and Kafatou, 1991; Laszlo, 2004; Panek, 2000; Ross, 1993; Sahtouris, 1999; Sardar, 1998; Sheldrake et al., 2001; Zohar, 2000) Eisler (2004) argues that behind the mechanistic paradigm lies the dominator model, the drive to control and have power over others and the cosmos. Yet going a step beyond this, it can be argued that there is a deep wounding that drives both the dominator model, and the mechanistic paradigm. For both these are control and power centered, and attempt to suppress the affective and feminine, and the fear of death and vulnerability which lies beneath them. They are in effect, means to deny humanness. Thus the dominator model of culture tends to develop in harsh environments (Eisler 2004: 70), suggesting that trauma and wounding underpin the development of patriarchal culture.

Thus one might add that simply changing the paradigm - whether it be from mechanistic to organic (Sahtouris, 1999), to holographic (Bradley, 2004); from dominator to participator (Eisler, 2004), or from reductionism to chaos (Sheldrake et.al, 2001) - will be ineffective unless there is a parallel healing that occurs along with that paradigmatic change. If this argument is correct, it may be assumed the imperative to dominate and control will persist as long as does the wound. Grof (1995) states that "the problems in the modern world are products and symptoms of a psychospiritual crisis" and that "any effective solution will require a deep inner transformation of humanity and a new scientific world view emphasizing unity, co-evolution, and cooperation." (Grof, 1995)

And just what is the wound? The recoded history of humanity is one of countless sufferings - bloodshed, war, famine, and on top of this the multiple natural disasters that have befallen numerous cultures and civilisations. Grof (ibid.) writes that the "two most powerful psychological forces in human history have been without doubt violence and greed." Woolger (1994), argues that humanity exists within a deep collective consciousness, where pain and trauma are forever present.

...in the unconscious all lives are perpetually present. The karmic swing of action and reaction is more like a vast river whose currents, eddying back and forth, rebound from one bank to another. When a soul has suffered at human hands - be it by knives, fire, water, or whatever - a deep imprint of the means that inflicted the pain is left. (Woolger, 1994: 201)

If one is to assume for a moment that a collective human psyche does exist (Bradley, 2004; Hawkins, 2002; Jung, 1989; Sheldrake, 1988, 2003; Sheldrake et al., 2001; Woolger, 1994) then the collective wound may feasibly be a part of this collective. This trauma may move beyond merely genetic propensities, and assume field/attractor properties, in

line with the conceptions of field theories of consciousness. (Bradley, 2004; Hawkins, 2002; Sheldrake et al., 2001) Further, Sheldrake (1988) argues that places retain the essential energy of their past, contained within a morphogenetic field. (Sheldrake, 1988)

Within eastern spiritual traditions and transpersonal psychology, the seminal collective human wound is often seen as the tearing away of the individual spirit from the universal spirit - the child torn from the arms of the cosmic mother. (Wilber, 2001: 116-117) Within the context of such a paradigm, the key to healing is in the re-unification of the atman and Brahmin, of individual and collective, of ego with spirit and cosmos. (ibid.)

However the (unconscious) goal of the fragmented ego that drives the mechanistic paradigm is the perpetuation of the egoic, separated state - the fragmented mind. (Anthony, 2005b) In this sense, unification with the cosmic collective represents annihilation of the small self. Following this idea to its logical conclusion, the refusal of mechanistic science to acknowledge (or experience) spiritual and integrated modes of awareness, can be seen as a direct function of its fear of the annihilation of the ego state, which stands as a primary imperative which underpins the superstructure of the paradigm.

The denial of intuitions, feelings and the affective in general, and the valorisation of the intellect, reason and abstraction in mechanistic science is thus possibly an attempt to avoid the collective pain that resides within humanity, and within locations upon the earth itself.

5. Conclusion

It has been argued above that the mechanistic paradigm's drive to control, dominate, colonise, and possess is a projection of the

fragmented mind; and three psycho-spiritual imperatives that underpin this have been identified.

Thus the mechanistic paradigm mirrors the imperatives of the atman to create "tighter and ever more restricted modes of consciousness." (Wilber: 2001: 117) Dominant contemporary representations of intelligence and consciousness, with their fixation upon the linguistic, the rational, the abstract, the mathematical, the codified, the textual and the ego itself - at the expense of the affective, intuitive and spiritual (Gardner, 1993; Sardar, 1998; Wildman, 1996) - are thus projections of this restriction and tightening of consciousness.

Notes

1. Previously (Anthony, 2005b) I identified four other imperatives of mechanistic science, and their effect upon the depiction and experience of consciousness in the modern age. Those four imperatives were: firstly, the dualistic nature of the scientific method, and in particular its separation of observer and object/subject; secondly, mechanistic science's tendency towards power and control over nature; thirdly the patriarchic and "hard" basis of mechanistic science; and fourthly, the influence of ego-level consciousness and the drive towards the state of psychic fragmentation and narcissism.
2. Wilber (2000c) argues that indigenous cultures hold not a transpersonal, but a prepersonal, undifferentiated level of consciousness development, which is prior to the rational mind. He thus differs from the romantics who tended to valorise nature mysticism. However Wilber sees some shamanic experience as essentially an incursion of transpersonal consciousness into the prepersonal mind, and thus of transrational origin. See Wilber (2000c: 244-50) for more on this.

3. Wilber (2001) sees the New Age movement as predominantly pre-rational "narcissistic regression and self-centric fixation." (Wilber, 2001: 194) and lacking generally transrational experience. This suggests the need for caution in regard to the utilisation of insights from New Age texts.

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