

Mindfulness: An Ancient Wisdom for the Reconceptualisation of
Modern Education in the Complex World

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Submitted in partial fulfillment
of the requirements for the degree of
Master of Education

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Abstract

Exploring the new science of emergence allows us to create a very different classroom than how the modern classroom has been conceptualised under the mentality of efficiency and output. Working on the whole person, and not just the mind, we see a shift from the epistemic pillars of truth to more ontological concerns as regards student achievement in our post-Modern and critical discourses. It is important to understand these shifts and how we are to transition our own perception and mentality not only in our research methodologies but also our approach to conceptualisations of issues in education and sustainability. We can no longer think linearly to approach complex problems or advocate for education and disregard our interconnectedness insofar as it enhances our children's education. We must, therefore, contemplate and transition to a world that is ecological and not mechanical, complex and not complicated—in essence, we must work to link mind-body with self-environment and transcend these in order to bring about an integration toward a sustainable future. A fundamental shift in consciousness and perception may implicate our nature of creating dichotomous entities in our own microcosms, yet postmodern theorists assume, a priori, that these dualities can be bridged in naturalism alone. I, on the other hand, embrace metaphysics to understand the implicated modern classroom in a hierarchical context and ask: is not the very omission of metaphysics in postmodern discourse a symptom from an education whose foundation was built in its absence? The very dereliction of ancient wisdom in education is very peculiar indeed. Western mindfulness may play a vital component in consummating pragmatic idealism, but only under circumstances admitting metaphysics can we truly transcend our limitations, thereby placing Eastern Mindfulness not as an ecological *component*, but as an ecological and metaphysical *foundation*.

Acknowledgements

To Dr. Chunlei Lu for his subtle guidance that brought early undergraduate insights to successful fruition in graduate work. For his stupendous patience throughout my many—often reclusive—months and years of independent research. And finally, to his refined Mindfulness which fostered a beneficial relationship in my educational process of self-discovery. He saw a diamond which no one else saw and together we polished it for 3 years. A better mentor could not be found.

To my second reader Dr. Joyce Mgombelo for her help throughout my drafts and her enthusiasm for my educational insights. And to the late Dr. Jonathan Neufeld for his private, intellectual discussions and class on the history of philosophy of education. As post-rational theorists, we shared a close intellectual bond.

To Joke Poen, my godmother, for her inspiration and insight throughout my life. She was first to endorse my initiative to pursue a Master's degree in educational philosophy. To my friend, Aabid Patel, who was the second to endorse my Master of Education.

To my mother, father, and sister who, from childhood onward, consistently reminded me that my head was in the clouds. I owe them much more than mere words can describe.

And finally, to my second mother Gaia: her Consciousness brings vitality to all living creatures; her Being animates the smallest blade of grass to the busy ant that walks upon it; and her Beatitude proves that Love has no bounds.

Dedications

To the Past,

Dedicated to the loving memory of Professor Jonathan Neufeld (1954–2013)

Future,

Dedicated to the future love of my life, Colleen Unrau. My theoretical sojourn was perhaps in preparation for your manifestation in my life.

and Present

Dedicated to those beautiful souls who guide my life, in particular, Al and Sarit; to Ms. Flynn, her teaching heart has yet to age a single day; to Audrey Gajic, Sakoieta Widrick, and Johanne Galway for their spiritual teachings; and last, but not least, dedicated to my mother, father, and sister whom I shared my intergenerational growth with, retaining a strong Dutch heritage and language amidst a Canadian culture.

大器晚成。
。大音希聲。
。大象無形。
。道隱無名。
。夫唯道。
。善貸且

上德若谷。
。太白若辱。
。廣德若不足。
。建德若偷。
。質真若渝。
。大

不笑不足以為道。
。故建言有之。
。明道若昧。
。進道若退。
。夷道若

上士聞道。
。勤而行之。
。中士聞道。
。若存若亡。
。下士聞道。
。大笑

*When superior people hear of the Way
they follow it with devotion
when average people hear of the Way
they wonder if it exists.
When inferior people hear of the Way
they laugh out loud
if they didn't laugh
it wouldn't be the Way
hence these sayings arose
the brightest path seems dark
the path leading forward seems backward
the smoothest path seems rough
the highest virtue low
the whitest white pitch-black
the greatest virtue wanting
the staunchest virtue timid
the truest truth uncertain
the perfect square without corners
the perfect tool without uses
the perfect sound hushed
the perfect image without form
for the Tao is hidden and nameless
but because it's the Tao
it knows how to start and how to finish.*

— *Dào Dé Jīng, 41, Red Pine Translation*

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Prologue: A Renewed Religion

It is the rational academic community, lost in their beliefs, who believe.

— John Anthony West

It is true, that a little philosophy inclineth man's mind to atheism; but depth in philosophy bringeth men's minds about to religion.

— Francis Bacon

A blind eye must not be turned to the fact that even those who believe themselves to be sincerely religious have nothing, for the most part, but a greatly diminished idea of religion.

— René Guénon

The separation of state and church must be complemented by the separation of state and science, that most recent, most aggressive, and most dogmatic religious institution.

— Paul Feyerabend (on dogmatic science)

There was never a time the total Wisdom of the Infinite Beingness was not expressed. And there will never be any time in which the Absolute Beingness, will not express itself, as phenomenon of life.

— Daskalos

If you were to ask anyone graduating from a Canadian secondary or postsecondary school why their aspirations do not include metaphysics they will undoubtedly say they have either never heard of such a topic or that it holds little pragmatic value. For them, and many among us, we assume today that metaphysics is an *archaic science*, often unworthy of study amidst the quantitative science of modern thought. Yet such a simple thought already admits a contradiction, evinces *progress*, and concedes to the agenda of Modernity whose pattern we follow in acquiescence of pseudo- or anti-metaphysical tendencies. For metaphysics, by its etymology, is not restricted to nature, that is, time and space, and therefore can never cease to be. Modern science, on the other hand, is ripe with contingencies and change; it is only here where one can speak of temporal and ephemeral matters.

It is certainly true that metaphysics was well known in ancient days and that the term science and philosophy had very different meanings than they do today. If one is made aware of this but views modern science as a sophistication of these ancient sciences then the difference is of negligible import save for historic curiosity. On the other hand, should the

modern sciences be a *residue* of these ancient systems, then quite another interpretation is required. Metaphysical discernment is both at the verge of extinction and at the edge of revival. It is through the intellectual intuition of perennialist, linguist, metaphysician, symbolist, and esoteric theoretician extraordinaire, René Guénon (1886–1951) that such a discernment is possible. Guénon represents, if not the last great perennialist of the traditional West, certainly the most eminent;¹ that metaphysics exists in its symbolic form in the West today we owe to his (non-Hindu) texts and disclosure of the nondual Hindu doctrine *Advaita Vedanta*. By Baghavan Sri Ramana Maharishi (1879–1950)—considered a nondual siddha (Wilber, 2000a)—he was called *the great Sufi* (Maridot, 2004) for he took Islam as his traditional doctrine to reach Enlightenment while always wearing a ring with the insignia AUM (Sanskrit: ॐ) to show his veneration for Hinduism (Perry, 1995). Whereas the West holds the greatest storehouse of quantitative truth or physical knowledge, to the East we owe the greatest storehouse of *metaphysical* knowledge derived from millennium of living spiritual traditions, each cultivating a sophisticated lineage of transmission. Western lineages exist, but secluded and cloaked in mystery, if not altogether degenerate.

What Is a “Master’s” Anyway?

The attainment of a bachelor’s, master’s, or doctoral degree is wrought with socio-political, socio-economic, and socio-cultural ambition and/or necessity. In some rare cases it derives from curiosity. The universities and colleges that bestow degrees and diplomas have become a business enterprise for the transference of information, often in view of national (or rational) interests. Most people are unaware that the three grades of higher education are a parody or secularisation (by way of degeneration) of spiritual hierarchies to be attained, assuming admittance (*adhikārī*), after many years of study and practice. In Druidism we have the *Ovate Grade*, the *Bardic Grade*, and the *Druid Grade* (Greer, 2013) with each hierarchic grade having many hierarchic levels. As Hall² (2010a)

summarises, the lowest of the three grades of Druidism was

Ovate (*Ovydd*). This was an honorary degree, requiring no special purification or preparation. The Ovates dressed in green, the Druidic color of learning, and were expected to know something about medicine, astronomy, poetry [and] sometimes music. ... The second division was that of Bard (*Beirdd*). Its members were robed in sky-blue, to represent harmony and truth, and to them was assigned the labor of memorizing, at least in part, the twenty thousand verses of Druidic sacred poetry. ... The third division was that of Druid (*Derwyddon*). Its particular labor was to minister to the religious needs of the people. To reach this dignity, the candidate must first become a Bard Braint. The Druids always dressed in white—symbolic of their purity, and the color used by them to symbolize the sun. (pp. 38-39)

The hierarchical constitution of Druidism is by no means exceptional, it is the structure of all spiritual traditions.³ Without cognisance of hierarchy, traditions such as Confucianism and Daoism are situated *at the same level*. Nonetheless, Confucianism provides an excellent framework for early education, assuming education is a lifelong pursuit of body, mind, soul, and spirit, and not the Neo-Confucianism (and Neo-Western) form we see today. As regards modern education, we chiefly cite our heritage after Plato (Greek: *Πλάτων*; c. 428/427 B.C.E. – 348/347 B.C.E.) and Platonism, depicted in *The Republic* and symbolised in his Allegory of the Cave:

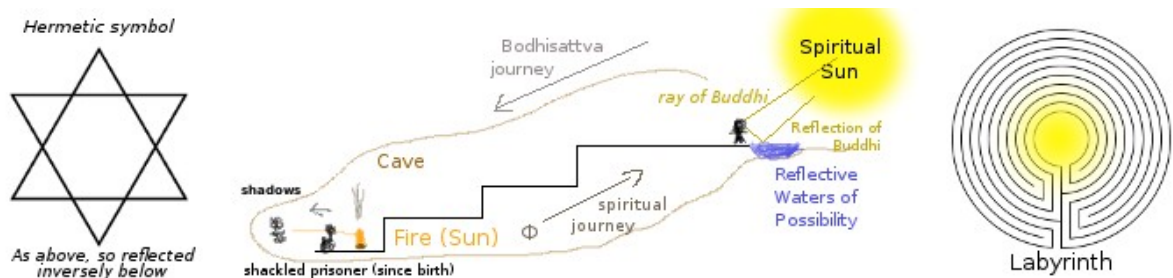


Figure 1. The spiritual journey toward Enlightenment through the process of education. In *The Republic* Plato wrote, “SOCRATES: And now, I said, let me show in a figure how far

our nature is enlightened or unenlightened: Behold! human beings living in a underground den, which has a mouth open towards the light and reaching all along the den; here they have been from their childhood, and have their legs and necks chained so that they cannot move, and can only see before them, being prevented by the chains from turning round their heads. Above and behind them a fire is blazing at a distance, and between the fire and the prisoners there is a raised way; and you will see, if you look, a low wall built along the way, like the screen which marionette players have in front of them, over which they show the puppets. GLAUCON: I see. SOCRATES: And do you see, I said, men passing along the wall carrying all sorts of vessels, and statues and figures of animals made of wood and stone and various materials, which appear over the wall? Some of them are talking, others silent. GLAUCON: You have shown me a strange image, and they are strange prisoners. SOCRATES: *Like ourselves, I replied* [emphasis added]; and they see only their own shadows, or the shadows of one another, which the fire throws on the opposite wall of the cave” (paras. 1-5).

Have we taken heed of Socrates’ warning who stated *Like ourselves*?⁴ His warning is arguably one of two passages—the other being *Know Thyself*—that set the foundation for modern education; yet, we interpret the cavern as a teacher giving knowledge to students thereby *freeing* them from the *bonds of ignorance* and *enlightening* their minds from *shadowy ideas*. However, such an interpretation is half-true—and much more false than true—for the governing philosophies of our education are entirely secular. As Platonist Pierre Grimes and Uliana (1998) noted and I cite, and comment, in considerable detail:

There [exists] many philosophies that ignore the spiritual dimension, and these are the ones that are taught in [or formulate the framework of] our schools. The result is that many of our people *are ignorant of this dimension of our existence*. There are many reasons why the spiritual aspect of philosophy has been ignored and is not taught in the universities, *and chief among them in that the university system is not designed to function as an academy of wisdom school*. Universities are teaching and research institutions that are designed to *inform* their students, not to *transform* them.⁵ The possibility that inner growth and development should be part of a mature vision of education is not considered seriously. The mystical and metaphysics side has, for the most part, been ignored because it is irrelevant to the needs of an academia that is

grounded in and sees its primary mission *to be the defence of one form or another of modernism*.⁶ Thus philosophy has been redefined⁷ by academia to explain and justify itself, much as philosophy in the Middle Ages served the church's need for defenders of the faith. Further, the presentation of the Platonic tradition as a spiritual system [as opposed to a philosophical system] in our universities and colleges *would arouse an opposition* not only from those who hold traditional religious views by from those whose security depends upon avoiding such conflicts. The issue of the spiritual side of man's [*sic*] development can be expressed in terms of whether or not there is such a thing as an evolution of consciousness [emphases added]. (p. 175)

To develop a spiritual foundation for insight, wisdom, and knowledge (*gnosis*) the attainment of a Master's degree (read: *level of mastery*) required Mindfulness, contemplation, and other associated practices (Wallace, 2011), yet these have been erroneously lost to view. In the pragmatic West, mindfulness has been *re-allocated* to stress-reduction. A preliminary definition for Mindfulness is manifesting a state of here-and-now oneness through full engagement in the present moment (Lu, 2012) while mindfulness is described simply as meta-awareness (Thompson, 2007). Throughout my paper I reserve Mindfulness for an Eastern context and mindfulness for a Western context. Now the idea conveyed by a *mastery* or *masterpiece*, especially for the ancient *artifex*,⁸ was altogether qualitative and transcending; our culture is that of industry or efficiency, for the two words are employed simultaneously. Far from being neutral to culture, industry represents *a culture of no culture*, since the "contrast between what the ancient crafts used to be and what the modern industry [including schooling] now is [represents] the qualitative and quantitative points of view, which predominate in the one and in the other respectively" (Guénon, 1945/2004, p. 55). In a qualitative or traditional civilisation, human activity derived essentially from principles so that our activity would lead to a *transformation*, which

can only mean rising above our current limitation of the human state “instead of being limited to what it is in itself, namely, a *mere external manifestation* (and the *profane point of view* consists in this and nothing else) [emphases added]” (p. 56). When a metaphysician speaks of principles, a spiritual context is inferred, and not the pseudo-principles we learn in school as general or axiomatic *laws*. As Guénon (1962/1995) explained:

With regard to the individuality ... including as it does the entirety of the psychic and corporeal elements, we can only designate as spiritual the principles that transcend the individuality, which again is precisely the case with *Buddhi* or the intellect. This is why we can say, as we often have, that for us pure intellectuality and spirituality are ultimately synonymous. (p. 8)

Today, in the *profane* conception, rationality (*manas*) has replaced intellectuality (*Buddhi*); a negligence that sees these as synonymous is consequential, for “the materialistic attitude necessarily imposes on the whole ‘psycho-physiological’ constitution of the human being a real and very important modification” (Guénon, 1945/2004, p. 101). Such a modification, according to Guénon, has resulted in a *solidification* and the illusion of *ordinary life* which is an attachment to all things in a segregated and sense-perceptual manner, respectively. Such an affinity for naturalism becomes accentuated to all domains of life and research whose self-imposed limitation, moreover, self-perpetuates its justification for doing so!⁹ So what purpose does spirituality hold for those who deny anything beyond the domain of corporeal existence? Today the idea of “reality” and the “senses”¹⁰ are so coupled that anything beyond them is “unreal” by corollary. Thus, succeeding stages of degeneration come to consider the lowest order of reality, namely the sensible (Greek: *αἰσθητά*) order, as the *only* order of existence! Similarly, “the hypothetical character of science passes quite unperceived, whereas everything classed as ‘philosophy’ leaves [one] more or less indifferent” (p. 104). Though the ramifications are well beyond the scope of my

paper, all these trends are indicative of a single trend: the *reign of quantity*. Even Truth (within ourselves) has degenerated to *utility*, which connects intimately with *pragmatism* and *industry*—these two, moreover, being more connected than they first appear, each being classified under *action-oriented philosophies*. On the topic of *industry*, in the relation to the ancient *artifex*, “individuals are regarded as no more than interchangeable and purely numerical ‘*units*.’ The latter conception can only logically lead to the exercise of a wholly ‘*mechanical*’ activity, in which there remains *nothing truly human* [emphases added]” (p. 58). Thus, modern industry places human below the machine, and thus at an *infra*-human state rather than the *supra*-human stage of spiritual development; modern education, rather than supporting a *spiritual pedagogy*, provides instead a profound *obstacle*.

In modern education it can be said that there exists many beginnings but few supports. Various supports allowed the *artifex*, *yogī*, or *yoginī* to “work from what is more accessible toward what is less so, from the exterior toward the interior” (Guénon, 1946/2004a, p. 59). Thus, the objective was “the surpassing of the possibilities of the human individual as such, ... and then only by taking hold as it were of his¹¹ superior side, that is, by attaching itself to whatever in him is most truly qualitative” (p. 59). Guénon then added, “that which the vast majority of men now living celebrate as ‘progress’ is exactly what is now presented to the reader as a profound decadence” (p. 61). The cultural paradigm of *maximisation* and *efficiency* can only beget *uniformity* which is closely related to *solidification* and *units*. Modern industry, therefore, represents the quantitative extreme to the qualitative artisan; the worker, being now beneath the machine, incapable of expressing anything human or qualitative of their own nature into the work, becomes *anonymous* in its *inferior* application: the *infra*-human. As a mere *unit* they are easily interchangeable without regard to what is eventually produced by the machine (and a simple parallel is suggested in education between the teacher and the school). Thus, “industry is really the opposite of ‘true

craft’ as the partisans of ‘progress’ so readily declare, a ‘thing of the past’. The workman in industry cannot put into his [*sic*] work anything of himself”¹² (p. 60). Therefore:

The machine is in a sense the opposite of the tool, and is in no way a “perfected tool” as many imagine, for the tool is in a sense a “prolongation” of the man himself, whereas the machine reduces the man to being no more than its servant; and, if it was true to say that ‘the tool engenders the craft’ it is no less true that the machine kills it.¹³ (p. 60)

The appeal for *mass-production*—a truly quantitative notion—within our economic conditions makes it difficult to pursue qualitative ends. As Dr. John Novak was fond of saying, we have become sexual organs for the reproduction of technology (personal communication, August 11, 2011)!

The illusion of *māyā* and *māyā* as illusion. Like the *Platonic shadows*, the tenebrous pole of *māyā* has been adulterated by Western opinion, denoting it as no more or less than *illusion*; such an opinion cannot but lead to the conclusion that our beloved Earth is altogether false and suspect to suspicion (Davis, 2004). Specifically, “the chief danger in using the word ‘illusion’ is indeed that one too often risks making it synonymous with ‘unreality’ understood in an absolute fashion, ... as nothingness pure and simple” (Guénon, 1966/2004, p. 73). In Hinduism, *Māyā* is the maternal¹⁴ power (*Shakti*) or Divine Activity (*Kriyā-Shakti*) that resides principally *unmanifest* in *Brahmā*. It manifests her own birth in *Prakriti*—also denoted *Māyā*—which “is only a reflection of this *Shakti* in the ‘cosmological’ order” (p. 74). In metaphysics or a principal point of view, *Māyā*—represented in her superior aspect as opposed to her inferior, cosmological aspect—is translated as *Art* in connection with the Divine Architect (God)! Symbolically, in connection with *Divine Art*, comes the expression *the veil of Māyā* indicating “primarily that of ‘fabric’ which, as it is woven, gives rise to manifestation. ... It is therefore only secondary that the

veil appears at the same time to hide or somehow envelop the Principle” (p. 75). When manifestation is viewed as external to the Principle it is truly an illusion which is also the point of view of *ignorance (avidyā)* whose antipode is Wisdom or *Sophia (Māyā)* from the Judea-Christian doctrines, the mother of the *Avatāra*.¹⁵ Although there is certainly a macro-cosmic symbolism at play, we are a Hermetic reflection of our macrocosm and the symbolism operates at the micro-cosmic order as well. Here, the primordial *Avatāra* enters the spiritual *seed*¹⁶ which exists latently at the center of human individuality which is symbolised by the Heart or hidden by the *cavern*. To germinate the seed is, in effect, a *second birth* (and consequent death as these two must always be paired) toward spiritual possibilities which is “fundamentally nothing other than the ‘actualization’ in the human being of the very principle which, in universal manifestation, appears as the ‘eternal *Avatāra*’” (Guénon, 1946/2004a, p. 299). In other words, our spiritual journey is toward our Heart to *rediscover* our own *Budda-nature*; these are not mere abstractions as a skeptical West might presume as *mentally* geared schools render unintelligible (read: *obfuscates*) the acquisition of Platonic (*intelligible*) knowledge! As Schuon (2007) elucidated:

Metaphysical knowledge is one thing and its actualization in the mind quite another. *All the knowledge the brain can hold is as nothing in the light of Truth even if it is immeasurably rich from a human point of view. Metaphysical knowledge is like a divine seed in the heart; thoughts represent only faint glimmers of it. The imprint of the divine Light in human darkness, the passage from the Infinite to the finite, the contact between the Absolute and the contingent—this is the whole mystery of intellection, revelation, the Avatāra [emphases added].* (p. 1)

The misappropriation of the word *māyā* is closely related to a body–soul *split* which has absorbed the historical West for millennium. Arguably, the scientific West places chief emphasis on the domain of matter or {body, mind} whereas religions look toward the

domain of the more subtle {soul, spirit}. According to a Kabbalist teaching noted by Oetinger and Schelling, Schuon (1991) wrote:

The Christian alternative between the “flesh” and the “spirit” allows us to recall here that corporeality is not something bad in itself. ... According to a teaching of the Kabbalah—noted by the theosophist Oetinger and again by Schelling—the corporeal state is the terminal point of the progressive self-revelation of God; it is thus a perfection, not an imperfection. Note that the tenth and last *sephira* in this process is a feminine hypostasis, the “Maiden,” thus an aspect of *Mahāshakti*; and so too—in Judaism—is the *shekhina*, the divine Presence. (p. 35)

Platonic thesis of movement fragmented. Rather than unite spirit-matter in *nondual Suchness* as Plato intended, historians prescribe Plato’s teachings as *dualist* which is both pervasive and ubiquitous;¹⁷ the reason is simple enough, modern intellectuals ruminate that Plato was a dualist on account of Plato’s *Phædo* (Greek: *Φαίδων*) which described the soul leaving the body to acquire Knowledge. However, such an interpretation stops short at the exoteric account of Platonism. These theorists have not only *misinterpreted* the Cave of Shadows which places intelligence in the Heart and not the brain (*the true shadow*) but also collapses the soul to the mind (Russell, 2004) to arrive at a category error of *body and mind split!*¹⁸ A simple question will rectify these errors: How can Plato be a dualist when the spiritual seeker not only *left* the cavern to embrace the Good (*One*) ... *but returned back down into the cavern* to embrace the *effulgent Goodness* within the shadows (*Many*) and prisoners (*Each*)?¹⁹ Today, *scientism* represents the *descending path of Plato*²⁰ and rebels against a religious or ascetic *escapism* toward Heaven, represented by the *ascending path of Plato*. A major point to add is that the *scientific* mentality only believes the descending path of Plato exists! Ultimately, these paths are in direct conflict, as Ken Wilber (2000b) noted:²¹

We see in Plato one of the first clear descriptions of two movements related to the

unspoken One, or two “movements” related to Spirit itself (to the extent it can be verbalized at all). The first movement is a descent of the One into the world of the Many, a movement that actually creates the world of the Many, blesses the Many and confers Goodness on all of it: Spirit *immanent* in the world. The other is the movement of return or ascent from the Many to the One, a process of *remembering* or *recollecting* the Good: Spirit *transcendent* to the world. For, as we will see, *while Plato emphasized both movements, Western civilization has been a battle royale between these two movements*, between those who wanted only to live in “this world” of Manyness and those who wanted to live only in the “other world” of transcendent Oneness—both of them equally and catastrophically forgetting the unifying Heart, the unspoken Word, that integrates both Ascent and Descent and finds Spirit both transcending the Many and embracing the Many.

In Plato ... the two movements are given equal emphasis and equal importance, because both were grounded in the unspoken One of sudden illumination. But when that unifying One is forgotten, then the two movements fall apart into warring opposites, into ascetic and repressive and puritanical Ascenders, on the one hand, who will virtually destroy “this world” (of nature, body, senses) in favor of anything they imagine as an “other world”; and, on the other hand, the shadow-hugging Descenders, *troglydites* each and all, who fuss about in the world of time looking for the Timeless, and who, in trying to turn the finite realm into an infinite value, end up distorting “this world” as horribly as do the Ascenders, precisely because they want—and force—from “this world” something that it could never deliver: *salvation* [emphases added]. (pp. 330-331)

What concerned traditional education, in particular as a reference to Plato’s *Meno*, was for the student to achieve *remembrance* of who they were and are (*know thyself*). These

aims are far removed from modern schooling; the difference between traditional teaching and modern teaching is profound:

That which is simply “learned” from the outside is quite valueless in the former case, however great may be the *quantity* of the notions accumulated (for here too profane “learning” shows clearly the mark of quantity); what counts is, on the contrary, *an “awakening” of the latent possibilities* that the being carries in itself (which is, in the final analysis, the real significance of the *Platonic “reminiscence”*) [emphases added]. (Guénon, 1945/2004, p. 59)

So what is a masterpiece? According to Guénon, the inner knowledge born from the craft becomes inseparable through the craft itself. Thus a perfect correspondence (*yin-yang balance*) will exist between the interior and exterior; the masterpiece is then an “expression, no longer only to a certain degree and in a more or less superficial [instinctive] way, ... of him who conceived and executed it, and it will then constitute a ‘masterpiece’ in the true sense of the word” (Guénon, 1945/2004, p. 60). It is considerations such as these that I deem important as one cannot *reconceptualise* education without proper *contextualisation*. I now turn to the second phrase that (should) constitute modern education.

Know Thyself

Saint Augustine of Hippo stated: *seek not abroad, turn back into thyself, for in the inner man dwells the truth*. Similarly, the Delphic maxim, *Gnōthi seauton* (Greek: γνῶθι σεαυτόν, Know Thyself), was an ancient Greek aphorism. There exists no phrase whose brevity encompasses education *in toto*. But what is the *origin* of the phrase and its real meaning and *raison d’être* (*reason for existence*)? Most individuals would relate the term to our Socratic roots and the basis of modern education; in fact, it is certain that the phrase was already present in Socrates’ time. He left no written record of his teachings except through Plato, who furthermore, garnered much of his teachings from Pythagoreanism. Pythagoras,

too, left no written teachings, only oral teachings that were passed down via transmission from guru to student (Hall, 2010a). Thus, the origins are further back still, to the Oracle of Delphi (Grimes & Uliana, 1998), and indeed “it is said that this saying was inscribed over the door of the Temple of Apollo at Delphi” (Guénon, 1976/2004, p. 39). It must be conceived, then, that the *original* inspiration *know thyself*—both spontaneous and divine—had to do with *wisdom*, so its origins are *beyond the history of philosophy itself*. Now in order for the *philosophos* (*lover of wisdom*) to become a *sophos* (*sage*), one had to traverse philosophy (*love of wisdom*) which “constitutes only a first degree on the path of the superior and veritable knowledge which is wisdom” (p. 39).

Conundrums. If traditional philosophy began a priori with *certainty* (of Being), modern philosophy begins a priori with *doubt* (toward any pseudo-speculative concern). The aim of modern philosophers “carry to extremes the *individualist*²² tendency and the resultant quest for *originality* at any price, [establishing] systems that are complete and definite, ... relative and limited on all sides [emphasis added]” (Guénon, 1925/2004, p. 8). Ancient philosophers, conversely, aimed to transcend the rational faculty as philosophy as “preparation was not enough, even as preparation, for it concerns only the limited faculty of reason, whereas wisdom concerns the reality of the whole being” (p. 40) of soul and spirit. While modern education utilises *non-silent* teachings to express ideas, in esotericism, *silent* teachings were observed through various means (*mantras*, symbols, rites, and so on) to express the inexpressible, the mystery of *gnōthi seauton*; in other words, to “lead man to certain interior states that would allow him gradually to attain real knowledge or wisdom” (p. 41). *Gnōthi seauton* is truly *gnosis*, yet—with spiritual degeneration *in-mind*—spirituality collapses to psychological development, a mere modality of the human state, thus implying a *moral* dimension as a goal for an educated (read: self-examined) life. Nel Noddings²³ (2006) espoused her psychological context aptly:

Possibly no goal of education is more important—or more neglected—than self-understanding. Socrates advised us, “Know Thyself,” and he claimed that the unexamined life is not worth living. . . . Unexamined lives may well be valuable and worth living, but an education that does not invite such examination may not be worthy of the label *education*. . . . [S]elf understanding [is] an examination of how external and internal forces affect our lives. (p. 10)

Critical camps generally consummate self-understanding with a reflexive²⁴ *praxis* to embody and enact a *cyclic process* of experiential learning. For example, Paulo Freire (1921–1997), Brazilian philosopher of education and father of critical pedagogy, defined *praxis* as the “reflection and action upon the world in order to transform it” (1996, p. 33) in the context of liberating the oppressed.²⁵ However, to an ancient Greek philosopher, *gnōthi seauton* did not reference *praxis* either—situating *praxis* (as *action*) at the opposite pole of the *contemplative* endeavor!²⁶ Critical interpretations are legitimate in context, but none justify the original *inspiration*. As Guénon (1976/2004) forthrightly stated:

No exoteric teaching is capable of providing true knowledge [emphasis added], which man must find only within himself, for in fact no knowledge can be acquired except through a personal comprehension. Without this comprehension, no teaching can lead to an effective result, and the teaching that awakens no personal resonance in the one who receives it cannot give any kind of knowledge. This is why Plato says that “everything that a man learns is already within him.”²⁷ All the experiences, all the external things that surround him, are only an occasion to help him become aware of what is within himself. This awakening he calls *anamnesis*, which signifies “recollection.” (p. 43)

According to Schuon (1991), “Rationalism, taken in its broadest sense, is the very negation of Platonic *anamnesis*; it consists in seeking the elements of certitude in the

phenomena rather than in our very being” (p. vii). Moreover, sense-perception (Greek: αἴσθησις) becomes increasingly insufficient to “realize certain states which go ever deeper within the being, toward the center symbolized by the heart” (Guénon, 1976/2004, p. 43). Similarly, the rational order is insufficient to reach interior “states, which were realized in the ancient mysteries, [and] are degrees on the path of this transposition *from the mind to the heart* [emphasis added]” (p. 43). Thus, *gnōthi seauton* is nothing short of the realisation of knowledge of one’s Being through “real [metaphysical] knowledge, and not its appearance or its shadow ... [which] according to Plato, is knowledge through the senses and even rational knowledge which, although higher, has its source in the senses” (p. 44). Similarly, the Greek saying *He who knows himself, knows his Lord* is a theological consequence from the journey toward the centre of ourselves!

What is less acknowledged about the phrase is the aspect of *death*. Metaphysically, the idea of birth and death are simply two sides of the same coin, with birth implying a death from ones antecedent state and death implying a birth into a consequent state (of existence). Hall (1957) would say that “birth is death and death is an awakening. The mystics of ancient days taught that to be born into the physical world was to enter a tomb for no other plane of nature is so unresponsive, so limited” (p. 22). Elsewhere he replaces *tomb* with *temple*, stating that our body is only “the *house* of the individual. ... [In] a state of grossness and perversion man’s body is the tomb or prison of a divine principle; in a state of *unfoldment* and *regeneration* it is the House or Sanctuary of the Deity [emphases added]” (2000a, p. 181). Similarly, Rudolf Steiner²⁸ (1861–1925) expresses that through waking consciousness we know very little of ourselves and spiritually our sleep life is infinitely more richer than waking life; “death releases the divine spark from its lowly prison, but such release may be only temporary unless liberating knowledge has come to the human while still on earth [for those who aspire] to higher, salvific states of consciousness” (1922, as cited in Hall, 2010b,

p. 13). In this connection we have the Gnostic treatises of *hylikos*, *psychikos*, and *pneumatikos*;²⁹ it owes to our individuality which centre predominates, but all three reside within ourselves. In connection with death, Schuon (1970/2009) wrote:

“Die to oneself”: this injunction has been followed by many, but all too often within the framework of a *passion* [emphasis added] which, though it may have become victoriously detached from carnal things, has remained intact on a [human] plane where it is in fact more difficult to address; here we are touching upon the mystery of the nature of the *pneumatikos* as distinct from that of the *psychikos*. (p. 47)

Now each and every one of us will die, yet many fear death. Traditional education taught us to approach death. In Buddhist dream yoga,³⁰ for instance, one *re-familiarizes* the self of the “eightfold process of dying [which entails] a dissolution process, a withdrawal” (Varela, 1997, p. 128) through *sādhana* (visualisation) practice of *generation* (imagining) and *completion* (experiencing); modern education conversely (or inadvertently) teaches us to fear death—and who can blame anyone for our acquired mental affliction when trapped in a {body, mind} set? In the end, to Krishnamurti, we neither *love* (2005b) nor fully *live* (2005a) as death is experienced in solitude and meditation since *love arises with mental death*; when we die to thoughts, the loss of our mental ego gives rise to a *religious* life, *religious* mind, and *religious* existence. *Thought*³¹ divides³² but an *understanding* integrates the whole being. Only then is religion and education synonymous³³ (Krishnamurti, 1981). From a meditative perspective, Swami Satyananda Saraswati (2009a) connects *myth* and *psychic symbols*:

Sleep and loss of awareness are the biggest problems in meditative practice. This state of unawareness is called *laya* in yogic scriptures. *It is the chasm that has to be crossed in order to jump from the stage of normal perception to that which is beyond ... the transcendental*. In Hindu scriptures this barrier is often called the “river of death.” It is also called *baitarni nadi*, the river which *Yama, the Lord of Death*,

crosses and takes people to after they die. This is symbolic and the word “death” here has a special meaning. It means the death *or removal of external sense perception, thoughts and unawareness.* This river is that which separates normal states of consciousness from higher states. In order to know the experience of *dhyana*³⁴ one must be capable of crossing this river. One must die to mundane experience. The best method is to adopt and use a psychic symbol³⁵ [emphases added]. (p. 833)

Here death carries a further significance than bodily death. Similarly, an *initiatic death is* when a spiritual seeker dies (to the profane world) *before* bodily death and is thus *re-born*; an initiatic death is synonymous with a second birth (for reasons explain above) with symbolic rites corresponding to the colour black as one “must pass through total darkness before reaching the ‘true light’” (Guénon, 1946/2004a, p. 173). A rite³⁶ is symbolism-*in-action*; the word *rite*, moreover, has as its root *rita* which is related to Latin *ordo* meaning *order*. The second birth is the process of a *psychic regeneration (psychikos)*—bringing *order out of chaos*—in our subtle order. In alchemical symbolism it is the process of *calcination*³⁷ which applies spiritual Fire to Air (intellect) in a furnace to remove (*calcinate*) impure thoughts. Over time the fire will leave only a pure precipitate that not even the vibration of the fire can affect. This is, I believe, our pristine awareness, a *purified mind*.

From a *Vajrayāna* (tantric Buddhist) perspective, the mind is divided between foundation consciousness (Tibetan: *kun gzhi shes pa*), ordinary states, and pristine awareness (Tibetan: *rig pa*). The foundation consciousness is often confused with pristine awareness as neither follow their object like an ordinary state of mind would. But there exists a qualitative difference between the two. *Kun gzhi shes pa*, which holds latent propensities (*vāsanā*³⁸), is experientially before the experience of *rig pa* and includes a degree of delusion and unclarity (Varela, 1997). In *mistaking* the two we *misconstrue* Dzogchen practices, “thinking that all you do is sit passively without reacting to whatever appears to your mind. It is a further

misconception that Dzogchen, or the experience of pristine awareness, *means just hovering right in the present* [emphases added]” (p. 121). An important point for Western pedagogical theorists who simply state that the purpose of mindfulness is to be in the present moment—it is that and so much more!³⁹ When “pristine awareness arises, it is extremely vivid, luminous, and liberating” (p. 121). The three types of pristine awareness are *basic pristine awareness* (Tibetan: *rtsal gyi rig pa*), the basis of *saṃsāra* and *nirvāṇa* and identical to the subtle clear light which “can be experienced only at the time of [bodily] death” (p. 122); *effulgent awareness* (Tibetan: *rtsal gyi rig pa*), experienced through meditation after *kun gzhi shes pa*; and *natural pristine awareness* (Tibetan: *rang bzhin gyi rig pa*), experienced as *natural* clear light as opposed to the *basic* clear light.

These discussions convened at the Fourth Mind and Life Conference, a philosophic-scientific exchange co-ordinated by Francisco Varela⁴⁰ (1946–2001) between His Holiness, The Dalai Lama, and (prestigious) Western thinkers.⁴¹ The topic of dreams and death were discussed and as of 1997 (the year of the conference), it was shown that lucidity in dreams were still rare;⁴² however, those with Buddhist or transcendental meditation backgrounds had a higher frequency of lucid dreaming: at least once a week. To His Holiness, the Dalai Lama, this was seen as an indicator that these individuals “have a higher degree of *mindfulness* [emphasis added]” (p. 104). Historically, “for ten centuries, the Tibetans have been involved in the phenomenology of dreaming ... under the Six Yogas of Nāropā” (p. 38). A “‘special dream body’ is created from the mind and from vital energy (*prāṇa*) within the body. This special dream body is able to disassociate entirely from the gross physical body and travel elsewhere” (pp. 38-39). Also, “the practice of developing the special dream body is ultimately aimed at achieving the *Sambhogakāya*” (p. 46). *Sambhogakāya* is one of three embodiments of Buddha classified as the Enjoyment Body, the very subtle body of an awakened being. The other two are *Dharmakāya*, the enlightened

mind of an awakened being known as the Reality Body and *Nirmāṇakāya*, the Emanation Body that is perceptible to ordinary sentient beings. In connection with *Phædo*:

As long as the gross body and mind are functioning, the gross self is designated on the basis of the gross body and mind ... therefore, you cannot identify a subtle self. ... The gross self and the very subtle self do not manifest simultaneously. ... [T]he designation of the subtle self occurs during a special dream state [and] actually departs from the gross body.... Another occasion is during the bardo. (p. 125)

From this perspective we have collapsed the soul, or subtle self to the gross mind which is the perception of most Westerners; those that do not admit a soul (myself at one point) do so within a pattern of materialism: an identification of a sense-perceptual world (*the Platonic shadows*). But, who is to blame in a materialistic culture? The nature of science is naturalism and science and education are very inter-connected—an idea dismissed in a demarcating (material) culture!

The context surrounding the Platonic thesis of *Phædo*. Plato is intimately connected with Egypt. The fact that our conception of Egypt is changing⁴³ should entice pedagogical theorists to revisit our presupposed Platonic roots. Apart from Plato's affiliation with Egyptian priests (Hall, 2010a), it is historical Egypt that offers us a glimpse of *our prehistoric human roots*. I believe that such a matter is important to all⁴⁴ life on Earth—human and nonhuman alike—when we consider the philosophical questions: who and what are we, why are we here, and what are our ancestral roots? These existential questions are dismissed for learning so-called facts over acquiring wisdom. The work of Schwaller de Lubicz, aggressively discounted (West, 1993), has shown that there are *two* Egypts: the modern and exoteric (known and undoubtedly admire) and the sacred and symbolic, hidden in plain sight. Arguably strengthened through rudimentary depictions in texts,⁴⁵ *our interpretation rests on the exoteric alone*.

From such school texts, it may come to many as a surprise when Grimes (2007) stated that Plato began not a *philosophical* discipline, but a *spiritual*⁴⁶ discipline! Platonic metaphysics is an intellectual *yoga*—sister to Eastern contemplative systems—where those who are *wise* have undergone a process of *true* philosophy. Plato’s Ideal State (read: Kosmopolis) approached Enlightenment through formal education (Platonic Cave) on the basis of his *metaphysics*. Pedantically, the Greeks understood *yoga* as *paideia* (Greek: *παιδεία*); the highest *process* of nurturing and highest sense of *educating*—evolving humans into their true form and genuine (read: *primordial* or *Edenic*) nature.⁴⁷ However, reason⁴⁸ alone cannot determine when such an enlightenment experience occurs. In Greek philosophy, this is known as *The Sudden*, in Zen Japan, *Kenshō* (Japanese: 見性). *And the pursuit of thought may not lead to understanding at all.* According to Grimes’s interpretation on Plato, understanding comes through the highest part of the mind (*Nous* or *Buddhi*) contemplating his intelligible realm. Therefore what we consider understanding was not understanding to the Greek philosophers, but *dianoia* (Greek: *διάνοια*) which translates into *through Nous*,⁴⁹ identical with *intellectual intuition*—a term I return to.

Though Plato has been largely exhausted in scholarship, Grimes (and Guénon) elucidate on the *esoteric* perspective.⁵⁰ We tend to assume Plato planted a seed for modern education to grow, and that our educational system represents a full-grown tree: philosophically perfected and scientifically mastered with only details remaining.⁵¹ *But it is not even a sprout. In my view schooling is merely at the limits of its own mechanical nature.*⁵² Thus, introducing the controversial *Phædo* by way of example from a Kriyā-Yoga perspective that emphasises *prāṇavidyā* (“science of *vital* breath”):

We are born from our mother’s womb but we have to [be] born again from our Father’s womb, not from the physical father but from the spiritual father, the Great Father, *paramapitā*. ... Only human beings can be born twice. In the second birth our

body will not change, ... and [we] will die as a divine being. In fact, one never dies, only the body dies, one will always be in life, in *amṛta*, in divine nectar. We are sitting and waiting inside our brain,⁵³ in *Ājñā cakra*, to be born again from our Father's womb. (Giri, 2013, p. 8)

Grimes (1996) calls Platonism a *yoga of death* to attain the wisdom of the philosophers of old—a purification of the mind and body to reach heightened states of consciousness (*Plato's ascending path*). In *Phædo*, Plato elaborates on *true philosophy* through the trial of Socrates. According to Grimes, true philosophy is the pursuit and study of dying. Those with a worthy interest in philosophy receive their greatest blessing (divine illumination, true virtue, wisdom, and so on) in death! The true philosopher *desires* death and approaches that state in self-study.⁵⁴ The Platonic concept of death differs from our current scientific understanding of death: a black and white interpretation that considers death as the negation of life (cessation of respiration, heartbeat, and neural activity). To Plato, death is the state when the body and the soul, or subtle mind-energy, *separate*⁵⁵ and exist apart from one another. Naturally, everyone experiences death—what is called the *bardo*⁵⁶ state in Tibetan spirituality—but wisdom, or *dianoia*, is gained only through the direct experience when the soul is *separated* and allowed to inquire alone,⁵⁷ thereby entering into communion with the pure, non-sensorial, and non-perceptible intelligible world.

Critical interpretations accusing Plato of *universalism* assume his *intelligible world of Ideas* are eternal Ideas. Rather than compare it to the Divine Intellect (*Word, Logos*) to see if it is identical, criticisms leveled against Plato argue that universalism does not exist in Nature. There are a number of errors here. First, Plato distinguishes between the intelligible world (*Realm of Forms*) and the sensible world (*Realm of Opinion*⁵⁸). It is not a question of eternal mechanisms *in* naturalism; rather, nature is a reflection of *archetypal Ideas*.

Similarly, his *Ideas* are not *ideas* that are subjective or psychological as they transcend

individuality (Guénon, 1976/2004). Second, “the ‘intelligible world’ corresponds to supraformal manifestation rather than to pure Being; in other words, ... it would be *Buddhi* envisaged in the Universal order rather than *Ātmā*, even in a perspective that limits *Ātmā* to pure Being” (1962/1995, pp. 10-11). So while both the Word and Ideas are represented by archetypes through manifestation, the Word remains unmanifest and thus is strictly *eternal* because *eternity* “cannot be applied to anything that belongs to manifestation, even at its loftiest degree [*Buddhi*] and at the level closest to the Principle [*Ātmā*]” (p. 11). In other words, Plato’s *Ideas* are not even eternal! His archetypes comprise the domain of the Intellect or *Being (ontology)*. The Word, being the *place of Possibilities*—both non-manifest and manifest—refers to the Infinite or Supreme Principle (*Brahman*) which is the analogical transposition from theology or the Intellect (*Buddhi*) to metaphysics and the Divine Intellect (*Ātmā*); a prejudice of moralists, secularists, and atheists is to see in religion either dogmatic morals or vague sentimentality when theology is the domain of study of the Intellect!

These errors end up making us anti-spiritual since “people [strangely] seem to consider the eternal ideas as mere ‘virtualities’ in relation to the manifested beings of which these ideas are actually the principal archetypes. [The] illusion here [is] due to the profane distinction between ... ‘possible’ [and] ‘real’” (Guénon, 1962/1995, p. 11); thus, “there can be nothing virtual whatsoever in the Principle, but on the contrary, only the permanent actuality of all things in an ‘*eternal present*’; and it is this actuality which constitutes *the sole basis of all existence* [emphases added]” (p. 11). Without archetypes we simply would not exist, so that any *virtuality* is simply a lack of consciousness as regards our participation in the Supreme Principle.⁵⁹ The Platonic archetypes are also not *images*, which is a contradiction as it reverses the relationship between Principal and manifestation as mental images are in the order of *form (shadows)*. A further error is that *archetypes* are often collapsed, confused, or afforded to *Jungian archetypes* which are better referred to as

archaic images from our phylogenetic and ontogenetic heritage (Wilber, 2001). Wilber ascribes Jungian spirituality a pre/trans fallacy: mistaking what is pre-conventional (*pre-rational*) for what is post-postconventional (*trans-rational*). Thus, “those archaic image ‘archetypes’ should therefore really be called ‘prototypes’” (p. 265). As he suggests, Jungian archetypes are the first *forms* in our evolution,⁶⁰ not the first *Forms* in early involution.⁶¹

Metaphysically, these concerns move us away from our spiritual (essential) roots. The word *root*, moreover, symbolises the source of our existence especially as regards the *inverted tree* based on *Pythagorean axial symbolism*. So that the phrase *cutting the roots of the plant* implies “having an existence and a reality independent of the Principle” (Guénon, 1962/1995, p. 256). The word *plant*, moreover, implying our supra-formal manifestation (*Buddhi*), the order designating the angelic⁶² hierarchy; “an angel as ‘celestial intermediary’ is fundamentally nothing other than the very expression of a divine attribute in the order of supra-formal manifestation, ... [thus] a real communication can be established between the human state and the Principle” (p. 256). It is in the supra-formal level that we express our divinity, that is, by leaving the Cave of Shadows to come to know our unchanging, spiritual Being. To remain at the human level is to identify with *becoming* as all things—biologically and psychologically—change; taken alone, we are physically and mentally *unintelligible*. The consequence is that value and questions placed beyond ourselves and identifying with objects we surround ourselves with—consciously or unconsciously—we dissociate from the present moment to engage in a race that leads nowhere except avoidance of the question: Who am I? *What we turn our attention to we gain, only to fear losing; and what we fear equally is that which we do not have, unless we procure it, then we fear of losing it again.* Thus, through our education we have produced the *human becoming*, not the *human being*.

What modern schooling produces

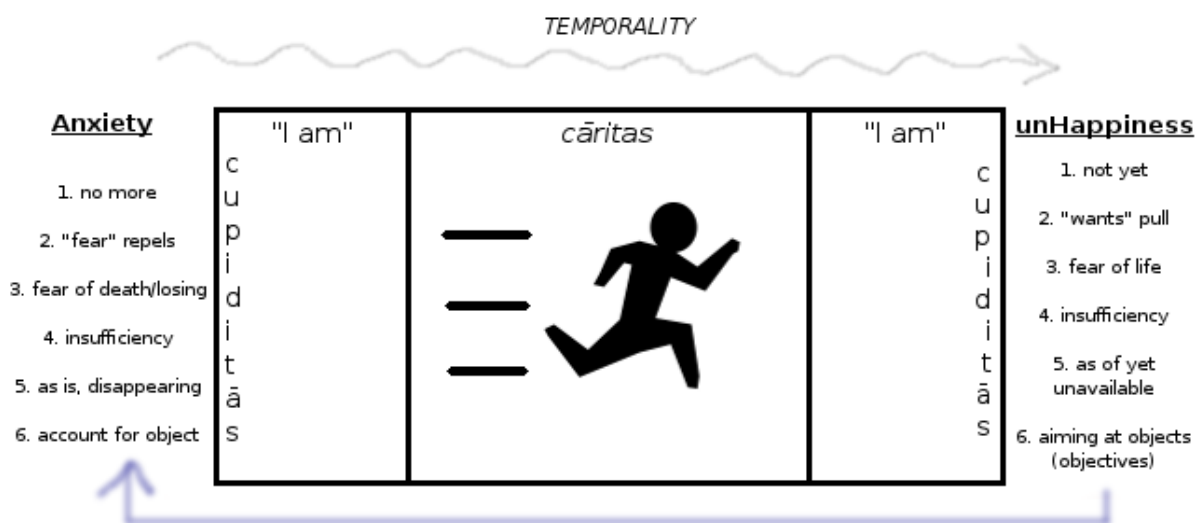


Figure 2. The plight of insufficiency as a production of the modern school. The concept of the school today, and what it produces, is the human *becoming*, not the human *being*. It may produce genius, but a genius that cannot escape mental limitations. One becomes trapped and runs toward *no-where* in a sliding world of *in-sufficiency* and *cupiditās*, flowing between a feedback of anxiety and unhappiness with every present moment *fleeting*. To be worldly is to *desire*, with *cupidity* and *avarice*; to love the *not yet* in fear of *not getting*, and the *no more* in fear of *losing*. These conditions drive the modern school. To be *self-sufficient* is to embrace (all) *death*, which lies beyond time's movements, and *educate* fearlessness in the face of reality by embracing a love for each moment, thereby concentrating on the *mindful*, *eternal Now*. To be stuck in such a pattern is a *pathologos*: healthy-looking in the inside but detrimental and unsustainable on the outside. Its system seeks knowledge for its own sake in the form of *intellectual materialism* rather than achieving *clāritās*, *cāritas*, and *in-sight* through *person-hood* or *self-hood*. The system begets *self-erasure (dissolution)* as opposed to *self-effacement*; and we accept the contradiction to forsake our health, mentally or physically, for politically advantageous extremes. Science invades curriculum to revere it, thereby self-perpetuating the pattern (Dr. Jonathan Neufeld, personal communication, October 11, 2010). The plight of insufficiency aligns with the Second Noble Truth of Buddhism in that we do not know the *origin* of our suffering.

It is one thing to correct prevalent ideas of our time and quite another to understand the patterns behind them; my major research paper (MRP) will emphasise the latter. The deeper the patterns we can undercover together, the deeper the resistance—if resistance is required—we can conjure against them.

CHAPTER ONE: HERMENEUTIC IDEAS IN EDUCATION

No tree has branches so foolish as to fight amongst themselves.

— Native American Proverb

Be kind, for everyone you meet is fighting a hard battle.

— Plato

Until we extend our circle of compassion to all living things, humanity will not find peace.

— Albert Schweitzer

If we could read the secret history of our enemies, we should find in each man's life sorrow and suffering enough to disarm all hostility.

— Henry Wadsworth Longfellow

When another person makes you suffer, it is because he suffers deeply within himself, and his suffering is spilling over. He does not need punishment; he needs help. That's the message he is sending.

— Zen monk, Thich Nhat Hanh

My MRP chronicles not one, but *two*, changes of perception. Even the prelude went from “A New Religion”⁶³ based on Jiddu Krishnamurti’s (1895/1896–1986) teachings on religiosity and a revolution of the mind to “A *Renewed Religion*” which aimed to transcend *mythic* conceptions to their proper, *mystical*, and *mysterical* roots; a recursive change rooted in my own (Western) mindful uncertainty. Now, the reader may find questionable the prospect of *religion* in secular education, that the writer takes on more risk than benefit—especially in an age that can no longer fathom spirituality amid our material and sensory mastery. Our modern, material mentality has seemingly risen *above* religion albeit, with *eirōneía* (Greek: *εἰρωνεία*; English: irony, “*dissimulation* or feigned *ignorance*”), a science that is, to use spatial symbolism, *beneath* metaphysical considerations. The risk is not the particular confusion between these domains, but in a socio-cultural attitude in applying relative norms of vague sentimentality, morality, and mythic intellectuality to religion.⁶⁴ However, if I am to attain a specialisation in social cultural contexts in education I cannot dismiss the idea of religiousness as it relates to Eastern wisdom. And if we have separated “successfully” the domains of science and religion, it is only *half* the equation; not only must

we separate (*differentiate*) the two, but place them back together (*integrate*) in a refined,⁶⁵ organic *whole*. To ignore religion or *spirituality* would mean to dismiss all transcendental knowledge completely in the milieu of a revitalising spiritual culture. And we cannot continue formulations on education without an inner dimension. It would be irresponsible.

My approach to contemplating where Mindfulness fits into modern education is different than most post-Modern educationalists and complexivists. Rather than ponder *where* mindfulness fits, I ask: *why has Mindfulness been absent in education in the first place?* By turning the question on its head I have enlarged my framework of hermeneutic inquiry to include Cartesian mechanism as a degeneration from spirituality rather than an ecological worldview *emerging* from the Cartesian-Newtonian universe alone. For instance, Steiner (1995) provided a remarkable in-sight into materialism: it is simply untrue that “science has abandoned nineteenth-century materialism. ... [We] *often fail to notice that our ideas apply only to material things* [emphasis added]. Nowadays, materialism is veiled; in the second half of the nineteenth century, it showed itself openly” (p. 172). Thus, many are deceived in thinking spirituality is fallacious and “the veiled materialism of the present is no less intolerant toward a view that grasps the world spiritually than was last century’s admitted materialism” (p. 172)!

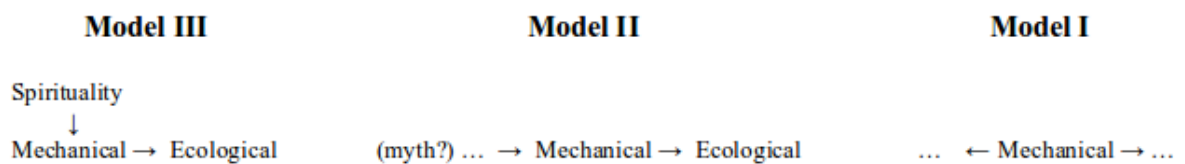


Figure 3. A preliminary framework for understanding three hierarchic worldviews. Each worldview or framework in turn represents a model of education, as these two are linked (although not in the Model I worldview). They are hierarchical because each model brings a new element into its inquiry. They are also incommensurable as each new element completely changes the framework itself. For instance, in Model I the arrows move outward but in Model II there is an emergent, *irreversible* process. In Model III a torque (representing hierarchy) appears since Model II lacks hierarchy. An interesting point is that it also lacks hierarchy in the framework itself amidst post-Modern and feminist critiques collapsing all

hierarchy to heterarchy (Wilber, 2000b). It could be said that Model I represents the industrial (Modern) paradigm, Model II represents the ecological (post-Modern) paradigm, and Model III casts its net from the pre-Modern to the post-Modern in actualising the post-post-Modern paradigm.

As we can see there is no room for Plato in Model II or Model I. There is, however, something much more sinister happening in Model III that eludes the hermeneutic inquiry of complexivists and eco-theorists. The potential in severities is addressed in *Cups and Plates*.

Situating My Knowledge

Science and education share a profound, co-ordinating *inter*-relationship—a fact that may (and has) bewilder(ed) many who characteristically separate schooling with environment (veritably arising from a complicated worldview which schooling develops)! Nonetheless, the post-Modern West argue for the notion of *situated knowledge*; similarly, ecological literacy demands *contextualised knowledge* (Stone & Barlow, 2005) since we all bring our own prejudice to the hermeneutic *Ouroboros*⁶⁶ of inquiry. Many argue (or believe) that the *hard sciences* are free from polysemy; although data is certainly quantitative, let us recall the insight⁶⁷ of quantum pioneers and Eastern enthusiasts, Erwin Schrödinger (1887–1961) and Werner Heisenberg (1901–1976),⁶⁸ who reminded us that our observations are a moment's reflection of Nature⁶⁹ to our questioning, the answers themselves are never eternal. Davis (2004) discusses three orders of interpretation where data acquisition is simply the first and *lowest* order; the second order situates our interpretation, while the third order follows the post-structuralist, post-Modernist, and French theorist Jacques Derrida's (1930–2004) model of *deconstruction*, whose cyclic self-reflexivity probes the intersubjective and interobjective domains that engenders our situated knowledge. Still, the reign of quantity continues unabated as is clearly shown by educational trends in statistics favouring *quantification* and *quantifiers*, matching the “chief characteristic that [the ‘scientific’ point of view] seeks to bring everything down to *quantity*, anything that cannot

be so treated *being left out of account and is regarded as more or less non-existent*” [emphases added] (Guénon, 1945/2004, p. 68). These trends have metaphysical significance that would puzzle anyone that grew up in Westernised education. Do we not view quantity as superior to quality or view our inheritance of the scientific method (read: *repeatability*) with prestige? Guénon, would call these characteristics *profane, illusionary, and delusional*; for instance, the phrase “‘the same causes always produce the same effects’, ... enunciated in that form, is inherently absurd, for there cannot in fact ever be the same causes or the same effects in a successional order of manifestation”⁷⁰ (p. 69). To Guénon, *scientific knowledge* is *ignorant knowledge*—born from the limitations of rationalism directed toward the sensible order and occupying the vast majority of those “civilized” in modern times.

My first perceptual change was to see nature as a fractal (non-linear, becoming, and diverse) as opposed to geometric shapes (linear, fixed, and uniform). Why do we view things, whether ideas or structures, as unchanging and uniform? What are the repercussions in creating eternal-like structures (such as schooling and curricula) on a transient world of becoming? To answer these questions I address Stephen Toulmin’s (1922–2009) critique on Modernity written in his *Cosmopolis* below. My undergraduate degree specialised in mathematical physics (B.Math) obtained at the University of Waterloo (UW). While mathematics constitutes the domain of quantity as an *exact* science, statistics⁷¹—an *empirical* attempt to *quantify* quality—is no more than a *conjectural* science, a *pseudo-predictive mathematics* of imperfection and approximation, failing “to take account of differences between particular facts even in cases where those differences are most accentuated” (Guénon, 1945/2004, p. 70) such as the domain of education! Thus, “the nearer is the approach to pure quantity the greater is the distance from the reality which nevertheless is supposed to be grasped and to be explained” (pp. 70-71). Why do these trends *today* have so much influence? One reason I believe is that the uniforming process

has reduced difference to make these statistics appear increasingly valid; metaphysically:

It is true that these differences, for the very reason that they represent qualitative⁷² distinctions, *become less as the degree of manifestation of the things considered becomes lower* [e.g. crystals], and that consequently there is then a corresponding increase of resemblance, so that in some cases a superficial and incomplete observation might give the impression of a sort of *identity*; but actually differences are never wholly eliminated, and this must be so in the case of anything that is not beneath the level of manifestation⁷³ altogether [emphases added]. (p. 69)

My affinity for Eastern philosophy at a young age is unconventional; I grew up Northern European (*Nederlandse*) with two first languages in a Canadian environment. I *loved Mother Earth*⁷⁴ and had early tendencies (age 8) to Buddhist thought. That I was both spiritual and cognisant of my spirituality did not generally fall in either of these socio-cultural domains. At age 28 I can classify myself now (and back then) as *clairsentient*;⁷⁵ it was difficult for me to understand how many people did not (or could not) connect with nature and animals through their consciousness. In my youth, Nature afforded me unprejudiced serenity in my walking meditations; no matter the circumstance, upon glance, her perceived perfection brought instant joy whenever there was sorrow, instilled vitality whenever I was emotionally fatigued, clarity whenever there was confusion. Nature became a bottomless source of rejuvenation and inspiration, yet her love began to wane,⁷⁶ in hindsight, as a reflection of my process of schooling. I had submitted unknowingly to Modernity's agenda: ripe with intellectual rigour, rationalist fervour, mathematical exactitude, and idealistic certitude (Toulmin, 1990). Atheism, too, was a large part of my formative socio-cultural education as a backlash against religion. My master's study, then, will connect intimately with my environmental roots, animal rights activism, and spiritual intentions, *as these perceptions (or lack thereof) were learned in school.*

Prior to my completion in undergraduate studies the Eastern pull of *mysticism*⁷⁷ grew strong, like an elastic pulled too far from equilibrium. I had spent my life living in a dual role as regards Nature—despite my environmentalism. I catered not only to a mechanical way of thinking (Model I), but to a mechanical (read: *uniforming*) way of perceiving. To me these trends are intertwined through experiential growth in a culture dominated by regressive European traditionalism (Modernity) disguised through a lens of reductionist *belief*. During the aftermath of my schooling I was able to dwell upon topics that had been pulling me in the direction of more Eastern *onto*-scientific philosophies, albeit in a Westernised context, especially *The One Straw Revolution*⁷⁸ and the *Web of Life*. When I became pesco-vegan—as a 2-year intermediate stage to veganism—I read John Robbins *Diet for a New America*, whose research irrefutably showed how our diet is interconnected to the planet (1998). Reading how pasteurised milk actually *contributes* to osteoporoses broke down my entire belief system that I had learned from years of schooling and the socio-cultural niche I resided in. I thought: *milk is good for your bones ... I had been lied to, yet these lies were seen as unquestionable truth!!! I was caught in a pattern I did not know exist ... how scary! What else blocks my capacity to direct intentional actions toward ideals if my “axiomatic” foundations are false!?* Ever since then I have *un*-learned many things which I detail throughout my paper. I often ponder how a framework for *true education* could minimise the need for unlearning; such a framework would require complexity while simultaneously giving students adequate tools to take the courageous step to question their own ‘mental certainties.’ Sadly, educational trends indicate precisely its antithesis, as schooling attempts to keep secular education *free from beliefs* which will undoubtedly be recognised as the imposition of the greatest belief system ever to inculcate our youthful, malleable minds: promissory materialism.

In short, ecology, complexity, and systems science fortified the notion to understand

Nature in terms of *patterns*, *(w)holisms*,⁷⁹ and *contextualisations*, not *complicated* and disconnected parts. Startlingly, *I had never heard of complexity or systems science* until after I graduated from UW! These sciences were actively studied since the 1970s and conceptualised prior. Today complexity has grown beyond the confines of a few intelligentsia into the public domain of research, but very recently in education (Davis & Sumara, 2006). Therefore, my paper utilises ecology and complexity as a framework to *situate* Mindfulness as *an ancient wisdom for the re-conceptualisation of education in the complex world*, and to inquire why complexity is so foreign to Westernised thinking, acting, and perceiving which can be categorised as *complicated*. To begin, Davis (2004) noted that:

A complex system⁸⁰ can change its own structure in response to internal or external pressures and is thus better described in terms of evolutionary process than in terms of the laws of physics.⁸¹ More concisely, a complex system *embodies its history* in its *structure*. Second, a complex phenomenon is self-organizing, meaning that it is composed of and arises in the co-implicated activities of individual agents. *It is not the sum of its parts*—an object; it is the product of its parts and their interactions—an *interobject*. Complexity scientists (or complexivists) often describe such adaptive, self-organizing phenomena as *learning systems*, where learning is understood in terms of ongoing, *recursive* elaborative adaptations through which systems maintain their coherences within dynamic circumstances [emphases added]. (p. 151)

For a *complicated system*, the best metaphor is the machine since analysis of the separate parts leads to an understanding of the whole; it is reductionist, context-free, value-free, and parts-based. Even today, complicated systems have principal focus in science and technology. It is often affiliated with engineering—and the subsequent thinking that develops these technologies—with the exception of biomimicry, a recent branch of engineering in ecological sciences. As Capra (1997) prognosticates, “In the shift from

mechanistic [complicated] thinking to systems [complex] thinking, the relationship between the parts and the whole *has been reversed* [emphasis added]” (p. 37). He continued, “Systems science shows that living systems cannot be understood by analysis [of parts] ... but can be understood only within the context of the larger whole” (p. 37). Therefore, it may be said that there really are no complicated systems in existence, only models—though we then build up systems based off of these models. Capra also differentiates between a *holistic* view and an *ecological* view with an example of a bicycle. The former sees the *whole* bike while the latter also sees interrelationships connecting the bike to its environment. It was during a 6-month break in Mexico studying permaculture⁸² that forced me to recognise that my perception and my thinking *were completely antithetical to natural systems* while simultaneously giving me a scientific framework *à la* Capra for permaculture! If complexity science can be categorised as the *new* sciences, it became immediately clear that the evolution to horticultural systems followed the branches of the *old* sciences. Permaculture, then, represented the bifurcation point toward these *new* sciences: *and the exact same pattern is applicable to education* (Figure 4)!

Without cognisance of such patterns, how can we apply them consciously and conscientiously? Whereas maximisation and efficiency constitute complicated systems, *optimisation* and *balance* are properties of complex systems (Davis, 2004). *Today, complexity, systems, and ecological sciences are rarely taught in pedagogy, didactics, curriculum, or teacher education.*

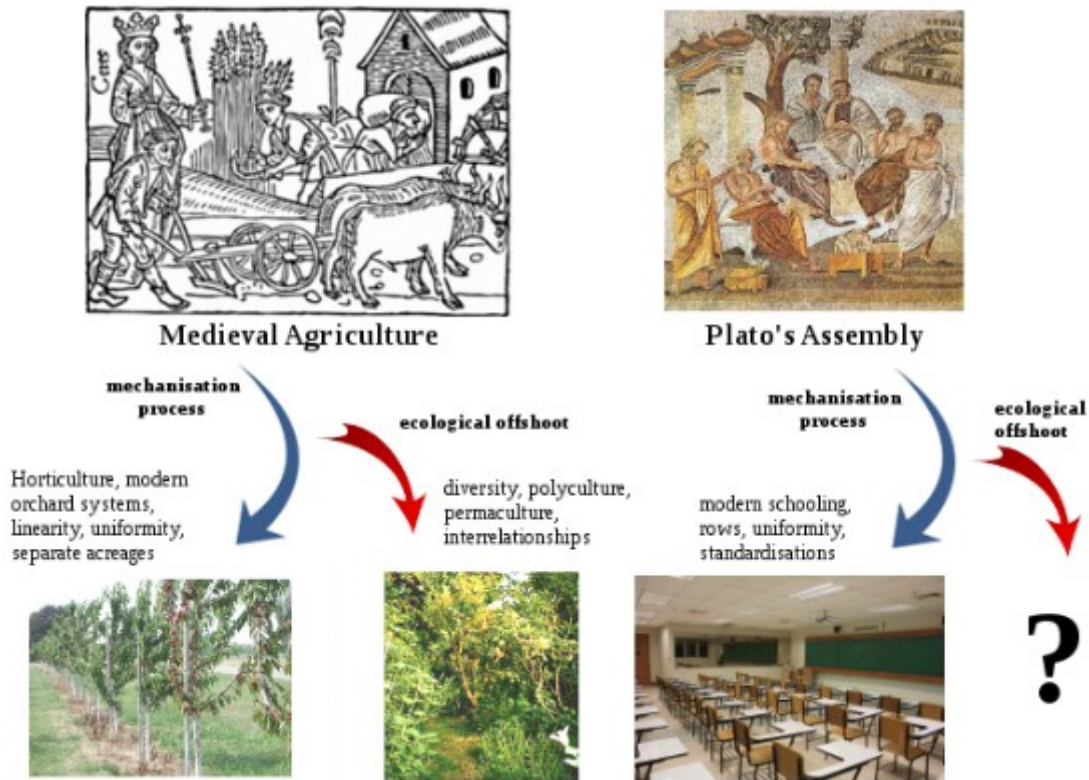


Figure 4. A comparison between agriculture and schooling. The left figure illustrates the evolution from agriculture to horticulture (complicated) with the subsequent *bifurcation point* toward permaculture systems (complex). The same pattern must hold true for education. Only in this way can we truly *reconceptualise education in a complex world*, as opposed to fixing small gears here and there which, I might add, is a direct result from an improper framework to begin with! My intention, then, is to fill in the gap. Image sources were retrieved from WikiMedia Commons and Clker.com.⁸³

Disaster struck! During my Bachelor's of Education and teacher education training at Brock University I was biking to and from Grimsby, Ontario, Canada which was a steady 2-hour endeavour. I had just come back from Mayan, mountainous Mexico and would often be late to class since I was biking during the orchard season and spoke enough Mexican Spanish to impress the local pickers here in the Niagara region. I had just started developing a permaculture plot for my mother, I was exceptionally strong, I had finished my 2-year pesco-vegan stage, and my thick dreadlocks, which looked exactly like Ronon Dex from the science-fiction series *Stargate: Atlantis*, had finally tightened after 2 years. On top of this, I

was paired with my mentor Dr. Chunlei Lu, who saw my potential as a Master's candidate as integrating a Buddhist and ecological background to understand how Mindfulness as a pedagogical *tool* for teachers and students could reconceptualise education—a very daunting task! But I took the challenge in great stride since, apart from my gardener expert mom not liking my permaculture garden—one that I made for her (and who actively fought against it⁸⁴)—I was truly on top on the world!

On a late October midday, when I was riding back from Brock, a disastrous event took place. A dark energy hit the back of my throat and proceeded to cascade down toward my lungs. I felt immediately sick and almost fell off the bike. That night I had trouble sleeping as a vibratory pain hit my forehead and proceeded down again into my lungs. The morning after I had what I thought would be a common cold from Brock students, but after weeks of ill health I realised this was no common cold;⁸⁵ I was accepted into the Master's program as a candidate many months later and it had gone from a few hours of discomfort a day to a waking reality. Veganism and diet were first to get blamed, which only exasperated me and exacerbated the issue. During a sleep clinic visit, I learned my brain waves were oriented to low alpha states (waking life); a good sign for spirituality, but not a clue for *dis-ease*; the situation was fast becoming hopeless. Most days were spent simply trying to function in everyday life, let alone complete a difficult master's program (or garden) that I had set out for myself to do! I could barely get out of bed most days and was constantly blamed as being lazy and lacking energy, neither of which were true, but these beliefs were becoming widely propagated to my family in the Netherlands.

After the second year I began to reach an equilibrium in my *dis-ease* where I became sufficiently (mal)adjusted to my body's ailment. I delved extremely deep into theoretical Buddhism and Hatha Yoga which naturally led me to the esoteric teachings of Rudolf Steiner in a book club. Later on I fell upon Guénon and I have yet to look back. The disease was

probably the best thing that happened to me! For one thing, I was finally able to understand that spirituality was *not* philosophy, but truly *divine*. My entire perceptual world was changing again and for the first time I could finally embrace the word *religion* and connect it to Yoga⁸⁶ and indigenous spirituality, whose metaphysical system is synonymous with a *primordial religion*; though the Aboriginal culture does not like the word religion at all it seems, and who can blame them? But many confuse the word *religion* with *theology*.

After over two-and-a-half years, through fortunate affiliations acquired after the book club disbanded, I fell upon a Tibetan Reiki master who was actually an advanced Celtic shaman. After the second session I was not only introduced to fabulous spiritual entities⁸⁷ that were part of my life, but the disease was identified! At the subtle level, I was literally covered with sticky black tar. The healer, who shall remain anonymous, was shocked, having never seen such a disease before and wondered how on earth I could even function in everyday life. I laughed and said I was living in a nightmare each day for close to 3 years. After four sessions I was completely healed. I was finally back in relative bliss. But I had lost a lot in those 3 years, including relationships and time (not) spent on my Master's.

Ecological complexity is only a step toward spiritual solutions for our educational crises. So it *appeared* these “new sciences” would connect all the dots between *mythic*-religious culture and science, school and ecology, and perception and action. After all, these new sciences are the tools of post-Modern educational theorists to overcome *reductionism*. Yet, I realised that these theories were inadequate—merely another stepping stone to metaphysics and an *intuitive* epistemology. It was halfway through my research that I recognised it was metaphysics (read: sacred science) that would eventually create a language that would attain the wisdom⁸⁸ of the East, Aborigine, and traditional West. The sacred, and not the profane, that showed me an even greater domain of understanding past rationality.⁸⁹ I transgressed by two discontinuous leaps, not merely adding two additions or

extensions. So I pursued further citations found in my references, both broadening my understanding and deepening my awareness to alternative ways of thinking that greatly lessen the tension between written and oral;⁹⁰ that spirituality is lacking in modern education is possibly the greatest crime of our times.

I can sum up my entire MRP with one sentence: Western mindfulness links together a *differentiated* (now *dissociated*) mind and body while Eastern Mindfulness offers a path of *bodymind integration* through the heart. As a precursor to my environmental roots, Wilber (2000b), a *transpersonal* theorist and post-Modern critique, explained the situation aptly:

Since the biosphere/Gaia has indeed been dissociated, I [Wilber] agree that part of the cure is “derepression of the shadow”—that is, recontacting the lower structure that has been alienated and distorted. But recontacting the lower is not at all the same as discovering the higher: and it is in the higher⁹¹ that the true healing, and the true integration, can occur. (p. 715)

In other words, *religiousness*, that upward reaching tendency of the soul to the Divine. And as St. Thomas Aquinas wrote, *Ex divina pulchritudine esse omnium derivatur* (From the divine beauty the being of all things is derived). So I ask, in my MRP, what are the underlying patterns that led me toward atheism⁹² for 16 years—despite having a deep love of Buddhism and spirituality? What is the bridge between East and West? Is the bridge between quantitative Western science and Eastern spirituality, colloquially termed *where science meets spirituality*, or is there a deeper significance and bridge *aligning* West with East? Is not something intuitively amiss with the overarching *educational*⁹³ framework as students leave in a disconnected manner into an interdependent world? The greatest need, in my opinion, is the re-alignment of education into the web of life (Model II). And the alignment must be done while avoiding the subtle reductionism⁹⁴ (Model III) inherent in ecological and system theory.

A Philosophical Thesis

To justify the scope of my research title *I can neither limit nor constrain my thoughts to the standardised empirical presentation of a thesis* or major research project; to rectify the situation, a *philosophical thesis* is required. According to Paul Standish (2010) a philosophical research problem is not empirically researchable. It will not have the same pattern of procedure. There are no *findings* to write up that logically flow from an applied empirical method of data gathering and analysis. A philosophical research problem is fundamentally concerned with questions of *meaning* and of *value*; that is, *conceptual* matters that concern how direct, lived experienced *ought to be* actually lived (often indirectly), not concrete matters directly that are gathered or collected for analysis. The coherence of these conceptual ideas and how they're presented is thus of primary importance. The philosophical problem may actually have to do with some kind of *struggle* that's taking place with the ideas themselves. It is not the analysis of relevant data, therefore, that will lead to resolving such a research problem. *It is the conceptual analysis of the ideas themselves that create the context for imagining and articulating the problem itself that must first be rigorously researched, long before the empirical problem can be questioned and pursued.* That is exactly why philosophers of education are invaluable guides in the research process (Dr. Jonathan Neufeld, personal communication, November 8, 2011).

In some instances, a crystal clear argument can be organised with precision. Or a systematic refutation of some established point of view is made. For my purposes, however, a loose and less systematic style of argumentation is utilised so that the *force* of the ideas evolves in the midst of the document's organisation. This does not mean that the organisation of my literary style is sloppy or unorganised—quite the contrary. It only means that the document takes the form of an introductory discussion that is designed to stimulate the *imagination*—especially in Model II. Thus, I can only speculate on what potential

consequences or actions would follow from events, and these events must be imagined through *thought experiments*. My philosophical thesis will conduct such an experiment by exploring and mixing or juxtaposing ideas that may lead to *uncommon understanding of an assumed misconception* (Dr. Jonathan Neufeld, personal communication, November 8, 2011).

In contrast to the common empirical literature review, a philosophical thesis likely draws significantly on a limited number of sources. Sometimes it even draws on the work of only one particular philosopher or school of thought. My sources are primarily concerned with post-Modern ecological and complexivist theorists (Model II) such as Brent Davis, Fritjof Capra, and so on, and the perennial philosophy of metaphysicians (Model III), notably Ken Wilber (empirical philosopher), Rudolf Steiner (spiritual scientist and education reformer) and the Traditionalist School of René Guénon, his student Fritjof Schuon (1907–1998), and Ananda K. Coomaraswamy (1877–1947). However, no exhaustive literature review exists in the document because the topic under consideration draws broadly from experience. I intend to contribute to their strand(s) of conversation from my own experiences. Therefore, as Standish (2010) concluded, *a good philosophical composer will be able to hold the reader in suspense for much of the document and show their full hand only at the end of the document to announce the conclusion more convincingly* (Dr. Jonathan Neufeld, personal communication,⁹⁵ November 8, 2011).

Cups and Plates: A Post-Modern Platonic Cave

In the past few years I have sophisticated a conceptual system for frameworks to interpret and understand knowledge. The *raison d'être* is from our inheritance of an information age that has never existed on a world-wide scale prior in historical humanity. Thankfully I grew up without a computer until I was 10, so I was able to grow without accessible technology in my formative years; naturally, the conditions for my case are rapidly decreasing for students being born into a Westernised education system today. But

for either case the problems that arise therefrom are threefold since information can either act as a solution or a problem, speeding up our capabilities for discernment or (unknowingly) bogging us down, since many will assume they *have* discernment, and this is only true from their relative standpoint. Therefore, the first problem is that *we are trapped in a pattern we do not know we exist in*, much like the Platonic prisoners who view the shadows as reality (and Grimes's pathologos described in chapter 3). For anyone who takes the predicament seriously, this is quite troubling! The first step, then, is to take cognisance of such a predicament which is already difficult as most of us rely on our frameworks of interpretation to be immutable and unchanging; *that in itself constitutes a pattern we are unaware of!* Therefore, we have to become *open-minded* with the capability to hold many viewpoints simultaneously in order to not trap ourselves; this may require holding opposing views for many years which is often very rewarding should you eventual fall upon a framework that encompasses both viewpoints at a higher level. What is often considered open-minded, that *sensibility* to understand our reality in terms of scientific naturalism, I reject completely, so long as science constrains itself to a very limited domain of inquiry. In fact, it is the very opposite of open-mindedness, it is a closed-mindedness that thinks itself open, much like an ostrich with its head beneath the sand thinking it can see; such a point of view is, by far, the most aberrant situation intellectuals have formulated for themselves which follows directly from our Comtian⁹⁶ and Cartesian roots.

The second problem derives from the first, that data accumulation in an information age can easily agree with anyone's point of view. If an open-minded attitude, as defined above, is not in place, among other socio-cultural factors, the result will be to *fortify* one's position even further in absence of other perspectives since we are taught to value our own mental reasoning as an independent faculty innocently reflecting on an independent—as opposed to interdependent—world: another pattern we do not know we participate in! As a

corollary, how often do we hear, “yes, I can see why *you* think that ...” which is an entirely rational perspective, unless you have the experiential background to discern your own viewpoint from that of another viewpoint *which you held previously*. These conditions need not make your viewpoint *truer* though, for that we require two more factors: hierarchy and fractals.

The third barrier is that Westernised education has taught us in a wholly decontextualised manner, lending truths to be everlasting and uniformly distributed historically. As a result, we tend toward thinking *sub specie aeternitatis* (Latin: “under the aspect of eternity”), a phrase of obscurity and paramountcy—its recurrence concomitant to my models, themes, and ideas I present throughout my MRP. Now, anti-rationalist Paul Feyerabend (2010) would rebuke *timelessness* in scientific thought:

A prevalent tendency in philosophical discussions is to approach problems of knowledge *sub specie aeternitatis*, as it were. Statements are compared with each other without regard to their history and without considering that they might belong to different historical strata. ... Such a procedure makes sense only if we can assume that the elements of our knowledge—the theories, the observations, the principles of our arguments—are *timeless entities* which share the same degree of perfection, are all equally accessible, and are related to each other in a way that is *independent of the events that produced them* [emphases added]. This is, of course, an extremely common assumption. It is taken for granted by most logicians. ... However, the procedure overlooks that science is a complex and heterogeneous *historical process*.
(p. 105)

From an educational perspective, I ask the reader to ponder why? It is education, after all, that lends support to these socio-cultural views. I address these prejudices through two critiques against Modernity from Toulmin (Model II) and Guénon (Model III).

Unfortunately, I can only write in a linear fashion despite non-linear and inter-connected ideas!

Fractals and Hierarchies

I have called my system a *post-Modern platonic cave* as I was, at the time, under the post-Modern influence (Model II) that Platonism went hand-in-hand with universalism and uniformity in naturalism. I no longer hold such an interpretation and designate the Platonic framework of education as Model III. The re-interpretation provides an excellent example of a *plate* (Model II) that is actually a *cup* in relation to an even *higher* plate (Model III) of understanding. However, since education rests in Model I, Model II is not *out-dated*.

One (blind) pattern that many exist(ed) in—and I count myself in both *tallies*—is that data accumulation seems to be mechanical. In other words, accumulation of data simply adds *more details* to our repertoire.⁹⁷ In many cases it does, but in some rare instances ... it does not. One simple but profound example is the Copernican Revolution. Smaller examples include what are called *paradigm shifts* and these *consciousness shifts* are increasing in momentum and quantity; the next Copernican Revolution could be just around the corner⁹⁸ (though never fully acknowledged)! We see it in the medical community: We thought we knew a lot 10 years ago ... but we know better now, which does not take into consideration that practices today might be recognised as detrimental 10 years from now!

Quantum pioneer Max Planck (1858–1947) summed up the situation aptly: *truth never triumphs—its opponents just die out or science advances one funeral*⁹⁹ *at a time*.

Ecological and complexity sciences, especially when adapted to educational theory, for instance, is a paradigm shift. The common feature is that the *elements* in the data did not change, so to speak, but our *interpretation* of them did. Often, an extra element was added that did not fall within our domain of knowledge, and with this new element, whatever it may be, the interpretation of the entire set changes. These changes are *profound*, often a

direct attack to our belief system, whether scientific or religious, and cause us great turmoil. They are hieratic since they add components that were not with our conceptual limits, a point I explicate below. However, rather than being thankful for the unfoldment of a greater set of understanding, we shy away from the *dying process* that must proceed any consequent *awakening*; especially when we are still within the interpretative framework that any extra data adds *mere detail!* Schrödinger said that the task is not to see what has never been seen before, but to think what has never been thought before about what you see everyday; a profound statement but, in my opinion, only half-true as he was not clairvoyant. Therefore, the first property to accommodate such paradigm shifts must acknowledge that a single point of data changes the entire structure of interpretation: it is therefore *recursive*. The greatest mathematical model for recursion (*iteration*) is the *fractal* which “exhibit precise self-similarity [whose] principal technique for construct[ion] is iteration” (Capra, 1997, p. 145). Therefore, fractals showcase *patterns within patterns* generated mathematically and applicable to all Nature, living and nonliving (see Model II). The richness of fractals that “defies the human imagination is generated by a few very simple rules” (p. 151). Thus:

Fractal geometry, like chaos theory, has forced scientists and mathematicians to re-examine the very concept of complexity. In classical mathematics *simple* formulas correspond to simple shapes, complicated formulas to complicated shapes. [Now] the situation is dramatically different. Simple equations may generate enormously complex [systems]. (p. 151)

Therefore, simple systems are linear, complicated systems are multi-linear, and complex systems are *nonlinear*.¹⁰⁰ Personally, I learned fractals in grade 12, *but*, it only provided a concept that mathematics was beautiful, it did not penetrate into perceiving the world in a fractal manner, nor did it give me the proper context to recognise that scientific thinking went through a major paradigm shift when it adopted nonlinearity as a basis for

modeling phenomena. Nonetheless, we continue to use complicated systems with subsequent repercussions today. One example is modern agriculture and the soil crisis (Mollison, 1988) which operates on chemical laws and systematic use of tractors, pesticides, uniformity, and so on. Permaculture is *systemic*, operating on the laws of ecology, nonlinearity, and inter-relationships. A paradigm shifting concept is to see plants in communities as having *many* functions while each function within the community or guild has a *redundancy* for each function: a truly complex system! To give an example of four plants with seven functions: {1: [1,2,4,7], 2: [2,3,6,7], 3: [1,3,5], 4: [4,5,6]}. Similarly, the Buddha spoke of seeing the entire tree, the sun, and the soil in the leaf. Education is also systematic and multi-linear as regards curriculum and schooling (see Figure 4).

I cannot impress upon the reader enough how significant the concept of the fractal is since many go about in their everyday world thinking they have knowledge, but along comes a single person with a single perspective or idea that changes the entire framework of interpretation!! This is precisely what happened to me when I read the 850-page volume *Sex, Ecology, Spirituality* by Ken Wilber (late) during my master's program which prompted an entire reinterpretation of Model II to classify a third model. So in an information age with access to large quantities of information (for those who can access the World Wide Web), an emphasis in thinking becomes *qualitative*, not *quantitative*!

Properties of Plates and Cups

My model aims to be simple and effective. There are plates and there are cups. Since we tend to think *sub specie æternitatis*, the largest error we unknowingly commit is to see all our cups *as plates* (*close-mindedness*). Both plates and cups are frameworks of interpretation and share a hierarchical relationship with plates above cups. Ecologically, a plate can hold many cups, however, the sum total of cups does not equal a plate; another way of putting this is that *the whole is more than the sum of its parts*. However, what I have in mind is

supra-ecological, although the ecological point-of-view (*plate*) is the best starting place to transcend the mechanical point-of-view (*cup*) by way of example.

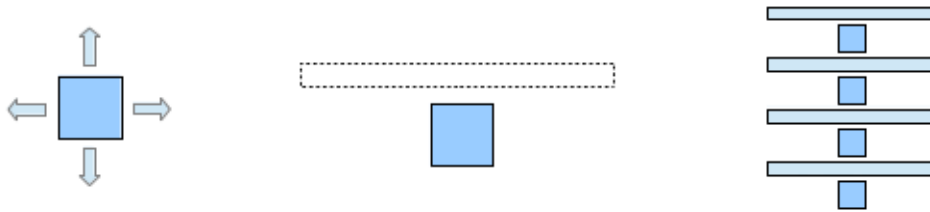


Figure 5. The hierarchical relationship between plates and cups. On the left is the totality of our representation of the world. It is *closed-mindedness* should all information fit within that frame of reference. The middle figure is the schematic representation of *open-mindedness*, since there exists higher interpretative truths not yet revealed to the individual. The right figure represents open-mindedness under time-lapse exposure. In theory, cups would merge and become higher plates which would then become a cup, or subset, of a higher plate.

One property of a plate is that it holds elements not conceptualised within our current cup—often perceived as a plate or an ever-expanding, data-accumulating cup. To continue our example, in a mechanical paradigm, we have parts that, when built up, constitute a whole. In ecological complexity, there exists inter-relationships between parts, not to mention inter-dependencies. In *commutative* set notation, we have {mechanical: [a, b, c], ecological: [a, b, c, ab, ac, bc, abc]} or, in Venn notation, {mechanical: [A ∪ B = A + B], ecological: [A ∪ B = A + B + A ∩ B]}.¹⁰¹ These are self-evident when taught in curriculum mathematics, but not self-evident in our everyday lives. For example, an attribute of the ecological set that does not exist in the mechanical set is *emergence*, which I did not hear of until I read Fritjof Capra's *The Web of Life*. Emergence is a property of natural systems and social systems alike and only recently formulated in science! Is it not strange that we have never viewed our reality in such a manner? Perception, then, is not independent of one's environment (Merleau-Ponty, 2005)!

There can be slight confusion between what lies beyond our set of understanding and what lies within our set but beyond understanding. To avoid such ambiguity, recall that one's

framework can be quite large and data accumulation may well fit within our internal self-consistency. And it is within our internal self-consistency that we feel *comfortable*. For example, if I embody a set $\{a, b, c, \dots, f\}$, then an element that was not known to me prior, specifically $\{d\}$ or $\{e\}$, would *make sense* since it would fit within my conceptual limitations. However, it would be a mistake to think $\{a, \dots, f\}$ is a *set*. More than likely it is a *subset* of an even greater set. The (perceived) danger lies in the fact that such an expansion which incorporates $\{g\}$, $\{h\}$, and so on, preserves the previous set, but *changes*¹⁰² the perspective of the entire set. However, if such an event occurs, you have fallen upon a true plate, and not merely changed opinions. Astrophysicist and astrobiologist Carl Sagan¹⁰³ would remind us to hold a balance between skepticism and open-mindedness. Interestingly, Thucydides (Greek: *Θουκυδίδης*; c. 460 B.C.E.–395 B.C.E.) stated, “When a man finds a conclusion agreeable, he accepts it without argument, but when he finds it disagreeable, he will bring against it all the forces of logic and reason.” We are truly dealing with the human condition that spans time immemorial.

In *absence* of hierarchy, an open-minded nature acts like a breaker switch, as explained above. Consider an interpretive set $\{1,1,1,1,1,1,1\}$ with $n_e=7$ and element $\{e=1\}$ as a particular truth within the context of the set in question. A negation, contradiction, or formal error will effect $\{e=0\}$. Obviously it is never black and white, but grey-scale; nonetheless, given that the set is really a subset albeit unknown to the interpreter, we have *ipso facto* the tendency for the set to bring $\{1\} \rightarrow \{0\}$ over the course of one’s life since any set $n_e > 7$ will ensure a different interpretation on one’s lived space. Therefore, we run into the contradiction that many individuals hold onto interpretative frameworks that speak only quasi-truths or no longer have any truth left in them! In other words, their set remains $n_e=7$ but now represented by $\{0,0,0,0,0,0,0\}$ or a set where $n_e \cong 1 \ll n_e \cong 0$ such as $\{0,1,0,0,1,0,0\}$. It is not uncommon for closed-mindedness to set in. In Buddhism, such *clinging* (*upādāna*) is

the ninth of twelve chains¹⁰⁴ or causes (*nidānas*) applicable to *praṭītyasamutpāda* (“dependent origination” or “dependent arising” or “interdependent co-arising”) and is connected with suffering¹⁰⁵ or *dukkha* (Sanskrit: *duḥkha*; Tibetan: *sdug bsngal*) whose identification and cessation comprises the Four Noble Truths as the first element of the Noble Eightfold Path (Sanskrit: *āryāṣṭāṅgamārga*; Pali: *ariyo aṭṭhaṅgiko maggo*). Grimes (1998) would associate closed-mindedness with the *pathologos*. With hierarchy, the *set* assumes its proper position as a *subset* and contradictions resolve themselves.

Once you *stabilise* a new plate you will permanently change who you are and how you perceive, act, and relate to the world. The plate is *incommensurable*¹⁰⁶ with the cup, therefore, the process is *irreversible*. Now the *real* danger lies when you see *regression*. So if someone—or even a society—is handed a plate, and they are not ready to accept it, they will automatically expand their cup and not transform into a plate. Therefore, the limited truths that were applicable to their context have now been placed on a grander scale, and that is recipe for disaster. The Westernisation of the world goes both ways. In some cases it gives plates, in many cases it imposes their own (expanded) cups upon other communities to affect their culture, core beliefs (with a disguised belief system¹⁰⁷), social knowledge sets, and so on (Shiva, 1989). Another example is allowing children to play with technology at younger and younger ages. On top of potential electro-magnetic pollution (Tiller, Dibble, & Kohane, 2001), rational desensitisation over emotional intelligence, and environmental dissociation, technology may play a counter-productive force toward *qualitative* learning.

Another property of cups and plates has to do with their relationships. In the social domain, such relationships manifest as mediation and reconciliation between two opposing cups. The solution is often to *meet in the middle* by way of agreement, dialogue, and accommodation: a great way to work through disagreements and often employed politically. We can say these two cups are *linked* together as they are situated on the same *level*. On the

other hand, a plate truly *integrates* both views within its own as it operates on a higher level and is therefore not restricted to the conditions and limitations of the cups, whatever those conditions are depending on the situation.¹⁰⁸ If we are to repeat this step, what was once a plate at the integrative level, now becomes a cup in relationship to a higher plate. Therefore, all plates are cups and all cups are plates, what matters is their relationship hierarchically.

One last point is integral here. The majority of theoretical problems, paradoxes, and contradictions that appear, whether in the quantum or social sciences, *has more to do with inadequate formalisms and less to do with extensive investigations not yet pursued within the formalism itself*.¹⁰⁹ That is, seemingly abundant contradictions or paradoxical issues are never *solved*, but *disappear entirely* with a greater framework of comprehension. Therefore, issues are often *re-solved* by going deeper, not broader. These considerations are as much theoretical concerns as they are practical; the question becomes: are the crises in our world to be investigated indefinitely through educational means, *or are they a direct result of the educational framework itself?* I attempt to show that the latter is in greater interest to future educational theorists by presenting my three models of education. As a corollary, one of the practical problems is frameworks are seen to be *absolutely correct*; attempts to resolve paradoxes only worsen the situation by what I call a *linear bootstrap process*.¹¹⁰

The very nature of post-Modern thought points in the direction that one can say very little about anything (Davis, 1996). I disagree, as does educational complexivist Brent Davis (I think), since we share sentiment that although our interpretations are not unbiased, it is our aim, nonetheless, to foreground our prejudices by pursuing complexity, ecological, and (in my case) metaphysical attitudes. Not only to define what is, but what can be. In doing so, we also place our own inter-subjectivity at face value, so that it too may be transcended. My aim, of course, is fixated on a *spiritual* education of peace and love that is often ignored or marred in pedagogical discussions.

Metaphoric Controversy and Critique as Regards Educational Conceptions

If post-Modernists have taught us anything, it is to contextualise everything, though they themselves perhaps carrying their ardency too far.¹¹¹ Why is contextualisation important? As I emphasise throughout my MRP, we are trapped in a pattern we *learn* while not acknowledging that we exist in them. Becoming conscious of such patterns is key to transcending them. Also, we are a product of our time and environment, so situating our knowledge (and developing a framework for education) implies understanding *how* our modern education came to be as it is today. To begin, the history of education, according to Dieter Lenzen, “began either millions of years ago or at the end of 1770 ... [therefore] education as a science cannot be separated from the educational traditions that existed before” (as cited in Cragun & Cragun, 2008, p. 195). While context-free thinking has often assumed the role that education has always been (and always will be), this is entirely *false*; *we have created the way we learn and educate*, making Westernised education a *human* invention! Therefore, we can *uncreate* it or *re-create* it, and, in truth, we do this all the time. In Appendix A, I have a list—by no means exhaustive—of educational quotations from key theorists dating from ancient to modern with spiritual, practical, political (often with economic or militant connotations) and philosophical *metaphors*.

The Metaphors of Teaching

The word *metaphor* is derived from ancient Greek *metapherein*, loosely “translated as ‘transference’; and it shows up in the modern Greek *metaphora*, which may be translated as a ‘vehicle of transport.’ Thus metaphor may be seen as a vehicle¹¹² that enables transference between experience and the language of thought” (Neufeld & Kompf, 2002, p. 42). Since Aristotle, who wrote in *Poetics* that metaphor consists in giving a thing a name which belongs to something else,¹¹³ scientific precision and computational logic “has led to the dichotomy of accurate versus inaccurate knowledge (as mediated through metaphor)” (p.

42). However, metaphor is also a “rhetorical vehicle for the transcendental unification of [one’s] experience and cognitive images of self” (p. 45) to develop a coherence between conceptual realms: subconscious-conscious, inner-outer, and so on. Prominent metaphors for pedagogical *angles* include *preparation*, *initiation*, *liberation*, and *guidance*, which have in common a development towards some culturally sanctioned end. Specifically:

Preparation points towards outcomes that will benefit the learner, enabling her/him to meet expectations. Initiation assumes the existence of theoretical and practical knowledge ... and it moves towards getting the educated person to understand and love knowledge. Liberation moves towards freedom (e.g. participatory democracy or the dictatorship of the proletariat), and it involves ‘empowering’ the oppressed through enabling them to understand their alienated condition. Finally, guidance moves towards ‘perfection’ through imitations (usually of an individual who embodies a particular ideal). (p. 42)

Davis (2004) outlines a *genealogy* of metaphors or terms synonymous with teaching. What is brilliant is the *way* he presents his material, implicating a *linear history* within a *non-linear genealogy*. For instance, he takes terms such as *educating*, *nurturing*, *caring*, *tutoring*, *training*, *instructing*, *lecturing*, *inculcating*, *training*, *facilitating*, *emancipating*, *participating*, *conversing*, *eco-justice*, and *minding*,¹¹⁴ just to name a few, and argues *against* teaching as a multi-faceted *act*, which is commonly assumed when given these terms (even if they are contradictory). Instead, he details that “teaching can’t possibly be about all these things—that what teaching *is* only makes sense when the issue is considered alongside prevailing assumptions about identity, learning, schooling, and so on” (p. 2) which is a very critical, post-Modern perspective. The divergent categories of *how to teach* fall within *embedded spheres* (read: ecological considerations) concerning “the nature of the universe, the sources of our knowledge, and the means by which we come to know” (p. 2).¹¹⁵ In other

words, these synonyms are not historically placed from past to present (linear), nor are they grouped together in any one classroom, school, or invested national standardisation. They co-exist throughout the world *today* within different contexts *bifurcated* from situated knowledges and socio-cultural sects. Unfortunately, we generally see the school as separate from our environment, so we end up with the *ecological illiterate* errors Davis showcased above (dealing with linear and nonlinear histories). I, too, made the error!¹¹⁶ Complexity and ecological literacy are foreign concepts to Westernised minds, it seems. Even metaphors, serving as the implicit basis of categorical knowledge, is endemic to scholarship! They “may marginalize alternative perspectives on learning to teach. These habits are maintained and defended in order to claim the status of ‘genuine science’” (Neufeld & Kompf, 2002, p. 45).

Chet Bowers, Eco-Justice, and Environmental Eschewal by Critical Theorists¹¹⁷

While preparing for my master’s there were two deficiencies in critical, post-Modern thought. Most critical theorists, with few exceptions, disregard the *non-social* sciences and *mindfulness* completely, failing to take into consideration complexity and ecological science. The second deficiency is spirituality. Interestingly, *mindfulness* is integral to both ecology *and* spirituality; the former stems from Western, interobjective sensibilities decades old in the form of *mindful participation* (Davis, 2004), the latter in enacting the spiritual dimension (Lodewyk, Lu, & Kentel, 2009; Hanh, 1988, 1992, 2006) in the form of *Mindfulness*. Therefore, to (briefly) contextualise the question *Why has Mindfulness been absent in education in the first place?* stems from Westernised pedagogical conceptions lacking an *inter-objective*, ecological dimension (Model II) and a *trans-personal*, spiritual dimension (Model III)!! From an ecological perspective, we have the following cups → plates:

{object(ive)} → {subject, object} → {subject, object, intersubjective, interobjective}

Bowers (2010) stated outright that “intelligent and well intentioned critical pedagogy theorists ... have not only *ignored* the underlying cultural roots of the ecological crisis but

are complicit in reinforcing the patterns of thinking that further exacerbate it [emphases added]” (p. 1). While critical theorists critique the *techno-bureaucrats* that guide educational reform, “both groups view themselves as progressive and enlightened thinkers—even as their reform agendas contribute to environmentally destructive cultural practices” (p. 1) through *hidden root metaphors* encoded in language. For instance, critical theorists aim, by way of praxis, for “the universal [read: uniform] goal of educating each generation to emancipate themselves from the influences of previous generations” (p. 4). To Bowers, the *root metaphor* (meta-schema) that represents change as moving in a *linear, progressive* direction is as fundamental to the current promoters of economic globalization as it is to the thinking of critical pedagogy theorists. ... It also provides legitimacy to a *totalizing way of thinking that represents all customs (traditions) as oppressive and the source of injustice*. ... The assumption that equates change with progress, *which is held by most Western thinkers as well as by elites in other cultures who have been educated in Western universities*, leads to viewing the loss of intergenerational knowledge and *networks* of mutual aid as a necessary part of becoming modern¹¹⁸ [emphases added]. (p. 5)

So intergenerational “traditions that we rely upon ... can be lost before people are aware of the implications” (p. 6). To him, critical theorists abuse the *meta-schemas* of progress, anthropomorphism, and autonomous (rational) agency through a *double bind*—that is, they do not realise the implicit, anti-environmental tendencies they seemingly denounce: a recipe for disaster. Anthropomorphism, in a critical perspective, while not “reducing nature to an exploitable resource, ... frame[s] the problem of human emancipation in a way that ignores the ecological crisis” (p. 6). Instead, critical theorists—and he names a few—overshoot “the sustaining capacity of nature systems [and never] consider how their theory of continual and universal emancipation contributes to ecologically unsustainable practices within western

and nonwestern cultures” (pp. 6-7). Therefore, “by ignoring that the life supporting characteristics of natural systems are in decline, they can maintain the myth that each generation will become more enlightened and self-directing” (p. 11). Such considerations connect with the metaphor of autonomous agency, whose basis resides in the “ideologies of the Industrial Revolution and of the Western Enlightenment project” (p. 1). Critical pedagogy theories (the dominant paradigm in graduate educational studies) for the ecological pedagogy theorist:

Represent all forms of authority as oppressive, and emancipation as a goal that *cannot be limited in any way without limiting the subjective authority of the individual to rename the world*, there is no basis in their thinking for recognizing forms of moral reciprocity not dependent upon the judgment of the individual. The perspective of individuals, who have been socialized to view themselves as *autonomous*,¹¹⁹ is the source of final authority [emphases added]. (p. 7)

In other words, *hyper-agency*, which Wilber (2000b) characterises in his *integral model* as a (horizontal) *pathology*; the freedom sought through hyper-agency leads paradoxically to *unfreedom* (Wilber, 2000b)—an excellent example of how expanding a cup (*inadequate framework*) attempting to fix paradoxes (unknowingly past their domain) inevitably re-enforce them (Model II). Nonetheless, to combat these issues Bowers (2010) formulates an *eco-justice pedagogy* which uses *ecology* as the (non-hidden) root metaphor. It aims to “guide the conceptualization of the widest possible range of cultural practices¹²⁰ [and] foregrounds the relational and *interdependent* nature of our existence as cultural and biological beings. This includes our [communal] *participation* in a *highly complex web of symbolic relationships* [emphases added]” (p. 9) ingrained from our past. As a system it comprises and addresses (a) *environmental racism* and *class discrimination*, (b) *recovery of the non-commodified aspects of community*, and (c) *responsibility to future generations*.

These factors can guide “the educational process to regenerate the non-commoditized¹²¹ skills, knowledge, and relationships that enables individuals, families, and communities to be more self-reliant—and thus to have a smaller ecological impact” (p. 10). It recognises that while many of our human traditions may “change too slowly, and others should not have been constituted in the first place, still others represent hard won achievements [and] do not contribute to degrading the environment in ways that threaten the health of marginalized groups, including future generations” (p. 13), which is the definition of *sustainability*. Therefore, an eco-justice pedagogy is “more ... than the development of critical awareness. There is a constructive side as well. Learning the principles of ecological design ... in the students’ bioregion¹²² is critically important to moving away from the industrial model” (p. 10). These considerations of *metaphor*—whether environmental, spiritual, or neither, influence educational perspectives:

Ontological categories determined conceptions of the nature and appropriateness of knowledge. For example, if we believe (1) that a divine masculine Creator determines human subjectivity, then we might ultimately consider how we should follow His commandments when seeking knowledge. If we *believe* (2) that subjectivity is a consciousness possessing *rational agency*, then we might consider ‘*reasonable*’ approaches to logically defined problems. If we believe (3) that we are children of a goddess, then we might perceive the earth as a natural living organism¹²³ [emphases added]. (Neufeld & Kompf, 2002, p. 46)

The scientific paradigm (rational agency)—with severe hegemonical tendencies—is the dominant educational framework (read: metaphor) today. Simply stated, the concept of education is an *oppression to falsity*: the repudiation that being *naïve* is the key to success and failure the key to understanding (Dr. Jonathan Neufeld, personal communication, September 14, 2010). It is interesting to note the rhetoric behind education, derived from

Latin, *ēdūcere*, meaning *to lead (forth)* and *to raise up*, is similar to *sēdūcere*, which means *to lead (astray)* and *to seduce*. For Plato, “the common feature of the corruption of the soul is the process of *imitation* and resemblance [wherein] family, clan, and social forces ... *strive to mold the young to resemble and imitate their own way of existence* [emphases added]” (Grimes, 2007, p. 36)! Plato taught that “when the *eye of the soul* [intellectual intuition] is sunk in the barbaric slough of the Orphic myth, dialectic gently *draws it forth and leads it up* [emphases added] (Republic, 533d)” (Schuon, 1970/2009, p. 256). I consider schooling the prime example of *sēdūcere*, amidst virulent advertising, materialism, and mechanisation. Davis (2004) noted:

In virtually all mystical traditions, *intuition* is something that demands one’s attention. Yet the situation is not quite so simply as embracing one’s inklings.¹²⁴ Within almost all mystical traditions, there are rigorous systems of discipline (from the Latin *discere*, “to learn”) that are intended to enable devotees to cultivate their intuitions and, in the process, reachieve some measure of unity within the universe. [From such] thinking ... the word educate originally arose, derived from the Latin *educare*, “to drag out or pull out.” To educate was the draw out, by whatever means, what was assumed to be already there, woven into one’s being from the beginning. Hence, educating was originally and fully focused on matters of *gnosis*. (p. 52)

In fact, *to learn* as a culturally institutionalised process came from Plato, whose metaphors of light versus dark (read: brilliance, illumination, and so on) has been ingrained in our *psūkhē* (Greek: *ψυχή*, *psyche*¹²⁵) for over 2,000 years! Perhaps it is older than time immemorial! Is it time for a change? Should we fight against the Platonic metaphors as most post-Modernists would *a-spire* toward? I would say *yes* if our educational foundation came from Plato but our *roots* came from Plato—our *foundation* is entirely Modern and Cartesian. Such a post-Modern view is plausible should one admit only horizontal considerations: that

nothing exists outside time and space, our sense-reality embedded in the space-time construct comprising corporeal energetic and material (read: *gross*) systems is the *only* reality, that the domain of knowledge that Plato took for contemplation is the *same* domain as scientists take today (*sub specie æternitatis*), and that our world is a sophistication of the Platonic thesis by way of *progress* and *evolutionism*. Such assumptions are widespread and taken for granted by an education built upon such premises. If we come to understand our educational context in a vertical (and horizontal) perspective, then my answer must be *no* for the post-Modern context simply rebels against Modernity and *universalism* (read: uniformity). Think: *Has schooling absent spiritual (read: trans-formative) qualities led to these assumptions from our Western, socio-cultural heritage?*

Heidegger's Criticism of Plato

Let us take the post-Modern context first. To Neufeld (2012), "Heidegger observes that the interpretive force of Plato's story does not arise from either the image of enclosure in a subterranean chamber or from the freedom and openness outside it" (p. 66). Instead, the interpretive force lies in the complementary role of the fire, the firelight, the shadows, the sun, and the sunlight. Plato's instructions on learning to think favor the correctness of looking towards illuminated ideas rather than uncovering what remains concealed or hidden in darkness. As "correctness of perspective," Plato's doctrine of truth demands a particular attitude towards learning to think, and teaching students how to think, in precisely this illuminated way. This signals danger for Heidegger, because it has the potential to favor scientific, instrumental, ideological, and objective perspectives of what learning to think should be. (p. 66)

To Feyerabend (1999) the result has been to favour the *image* of the scientist as the *arbiter of truth*—an image I was inculcated with as well.¹²⁶ But, the idealised person is simply an *imagination*, and truth does not reside in their hands, nor in scientific *sources* as often as

people might assume.¹²⁷ However, I can only say Heidegger's critique is properly against René Descartes (1596–1650), not Plato. The Platonic doctrine had degenerated from metaphysical knowledge to empirical knowledge. Nonetheless,

in regions, therefore, statements of truth arrange themselves as truthful for us, thanks to the findings that we arrive at by applying correct methods of thought's movement that lead to them. *Correct methods are the kind that we call rational calculation, scientific research, or reflective reasoning.* Consistent with Heidegger's criticism, truth is an accurate correspondence between thought and event; a conformation between what is thought and the things that we experience. Thoughts, things, and events can then become bound together into sets of relationships that are coherent ideologies within these regions of correctness. When they are bound together ideologically into a structured set of relations, we can put our trust in the principles¹²⁸ that hold together those structures, and we get political discernment or cultic beliefs. Our concepts, structures, systems, and beliefs depend on regions of truth and these regions are dependent on the doctrine of truth-as-correctness to guide us along paths correctly. They give us our bearing, determine our conduct, and define our identity. Without trusting them, we believe that we could have no experience, calculation, skill, discernment, research, reflection, belief, and no common, good sense.

Heidegger believes that this doctrine has reached its climax¹²⁹ in the technological ways that life shows up for us everywhere [emphases added]. (Neufeld, 2012, p. 68)

The seed that Plato sowed may not be so grand a tree (today) after all! These are all legitimate claims we cannot easily ignore, and I address these points in the context of *mechanisation* in the interpretive framework of mechanical versus ecological foundations (Model II). For a Model III understanding, we must place not Plato, but Descartes, as the focal point of Heidegger's criticism. In other words, the Platonic thesis (universalism) has

been carried out in domains (naturalism) never intended for its use (expanding cup)—*Model II cannot handle such an interpretation!*

An Overview of Complexity Theory in Educational Theory

If I am to utilise complexity (and ecology) theory as a foundation for interpretation it would be fruitful to discuss what complexity science is (and is not). Complexity theory is deeply compatible with hermeneutic inquiry and does not seek to finalise its position. As Davis and Sumara (2006) stated, “it is becoming more and more evident that complexity thinking now offers a powerful¹³⁰ alternative to the linear, reductionist approaches to inquiry that have dominated the science for half a millennium—and *educational research for more than a century* [emphasis added]” (p. xi). In order to study various phenomenon, one complexivist strategy is to “‘level jump’—that is, *simultaneously examine* the phenomenon in its own right (for its particular coherence and its specific rules of behaviour) and *pay attention to the conditions of its emergence* [emphases added]” (p. xi). Hailed as a new science, it stems from earlier breakthroughs in physics, chemistry (most notably *dissipative structures*), and cybernetics (most notably the Macy conferences). Though the term complexity is synonymous with non-linear dynamics (a recent branch of mathematics in chaos attractors and fractals), it has recently “been embraced by educationists whose interests extend across such levels of activity as neurological processes, subjective understanding, interpersonal dynamics, cultural evolution, and the unfolding of the more-than-human world” (p. 3). Other than the last point (more-than-human world), my interests fall along these lines. Rather than multi- or inter-disciplinary research, complexity is notably trans-disciplinary (Davis & Sumara, 2006).

To define complexity is perhaps impossible, and perhaps that is also the point. It aims to balance extremes, or simple remains present and situated between them, “without trapping itself in absolutes or universals”¹³¹ (p. 4). It is not a hybrid of *multicultural* sensibilities,

rather, complexity thinking is *culturally pluralistic* and nonsyncretic.¹³² If it can be defined, it does so in contrast to analytical science since “complexity thinking is not actually defined in terms of its modes of inquiry” (p. 4). Neither is complexity a *metadiscourse*,¹³³ since it “does not provide all-encompassing explanations; rather, it is an umbrella notion that draws on and elaborates the irrepressible human tendency to notice similarities among seemingly disparate phenomena” (p. 7) since “comparing diverse and seemingly unconnected phenomena is both profoundly human and, at times, tremendously fecund” (p. 8). Biomimicry is such a strategy in engineering (and represents the jump to biology from physics); paralleling mechanisation to horticulture and education alike is my contribution in hopes that educational theorists avoid the mechanisation process, outlined in chapter 2.

Complexity science is not meant to encompass, supplant, or usurp the role of analytical science (or any discourse) either; “complexity thinking does not *rise over*, but *arises among* other discourses” (p. 8); categorically, the existence of non-deterministic phenomena implies “that analytic methods are not sufficient to understand such phenomena” (Davis, 2004, p. 151). Also, in Model III, I touch upon what Guénon (1927/2004) calls an Eastern *synthetic* mentality in contrast to a modern (Western) *analytic* mentality—suggesting the former operates on a higher order than dispersion into an accumulation of detailed knowledge, insignificant if taken by itself. To classify self-organising, adaptive structures as complex dates back to Warren Weaver who “identified three broad categories of phenomena that are of interest to modern science—*simple*, *complicated*, and *complex*—[for] post-Enlightenment thought” (p. 9). Simple systems “captured the attentions of Galileo, Descartes, Bacon, and Newton in the early stages of the Scientific Revolution” (p. 9) who developed what comes down to us today as the *analytic method of investigation* which reduces mechanical phenomena to laws and particles. Although, Newton himself spent far more time on investigating alchemy and the occult than most people actually realise (West,

1991). The reason *analytic thinking is reductionistic* derives from its etymology, *analysis* (Greek: ἀνάλυσις¹³⁴) or *dissolving*; “analytic methods were literally understood in terms of *cutting apart* all phenomena ... to *reassemble them* [back] into complete and unshakeable explanatory systems [emphases added]” (p. 9). These historic ideas should not be separated from the general mentality that envisaged them. Such a mentality saw *determinism* as a key feature in the universe which culminated in the infamous Lapacian Demon¹³⁵ (Prigogine, 1997). Most of engineering (and life itself by analogy in metaphor) is based on deterministic physics. Not only are we inheritors to determinism and atomism, but we still see it today in our schooling systems! *Think: do we not see students as mere atoms, albeit bigger?*¹³⁶

Complicated systems were later developed when simple systems of trajectories became insufficient to disclose natural phenomena. Instead, methods of probability and statistics were utilised and *averaged* out. Again, a natural continuation exists in curriculum. However, “these methods did not arise from or prompt a change in the fundamental assumption that phenomena are locked in a fixed trajectory and reducible to the sums of their parts. The universe was still seen as determined” (p. 10) but beyond human intellectual capacity. Even this resignation was not enough as chaos theory would later show that systems are highly unpredictable (deterministic chaos) while complex systems were both unpredictable *and* indeterministic. Complex systems are biological, ecological, and even chemical. The problem with complexity is that *it forces us to change our perception, change the way we think, and change the way we conceptualise systems including education.*¹³⁷

In that vein, a complexivist interprets a *learning system* entirely different from input-output rhetoric. Learning systems are non-anthropomorphic as cellular activity to planetary motions all involve intelligence; thus, intelligence is no longer conferred solely to humans, but to all qualitative life.¹³⁸ Anthropomorphically, learning is not modifications of behaviour (*linear causality*), nor seen in terms of positivism or constructivism

(*reductionistic*); rather, learning becomes a “matter of transformations¹³⁹ [translations] in the learner that are simultaneously physical and behavioural” (p. 13). Learning is structurally determined by our “own complex biological-and-experiential [outer-inner] structure,¹⁴⁰ not [by] an external stimulus” (p. 13). Similarly, a *learner* becomes “a structuring structured structure [...] a complex unity that is capable of adapting itself to the sorts of new and diverse circumstances that an active agent is likely to encounter in a dynamic world” (Davis & Sumara, 2006, p. 14). Alternatively, “unlike modern conceptions of identity whereby one’s *self* is regarded as a product, then, one’s structure is product, producer, and process¹⁴¹” (Davis, 1996, p. 9).

Overview of Terminology Classifying Complex Systems and Their Applicable Context

In order to discern between *complex* and *non-complex* systems the following (non-exhaustive) list has been identified by researchers: *self-organisation*, (bottom-up) *emergence*, *local relationships* (to global coherences), *nested structures*, *ambiguous (open) boundaries*, *organisational closure*, *structural determinism*, and *far-from-equilibrium* (Davis & Sumara, 2006). Furthermore, non-complex and complex systems are not synonymous with non-living and living systems, respectively. Deriving from these terminologies are *redundancy*, *diversity*, *interrelationships*, and *existence*. A complex system, in order to perform adequately, especially in areas of ecological restoration (or classroom management), “must have considerable redundancy¹⁴² among agents (to enable interactivity), some level of diversity (to enable novel responses), a means by which agents can affect one another, and a distributed, decentralized control structure” (p. 153). Permaculture, for instance, operates on these sensibilities. Moreover, complex systems must neither be fixed nor dissolved, but remain at *the edge of chaos*, that is, far-from-equilibrium. Work by Stuart Kauffman on networked binary models has shown the mathematical equivalence stating that complex systems subsist between frozen (*ordered regime*) point attractors that have crystallised as

islands and non-frozen components (*chaotic regime*) overly sensitive to initial conditions and perturbations; thus, complex systems must reside at the “boundary region between order and chaos where frozen components just begin to ‘melt’” (Capra, 1997, pp. 203-204). So a complex systems does not operate in balance; “indeed a stable equilibrium implies death for a complex system” (Davis & Sumara, 2006, p. 6). For instance, a pond is *not stable at equilibrium*, but stable *far-from-equilibrium*. When I built a pond, suddenly a frog appeared! The entire pond underwent a recursive change and my permaculture vegetable patch was much healthier for it. Similarly, the entire biosphere shows the nonlinear feedback loops operating at far-from-equilibrium.¹⁴³ *Such a premise caused great turmoil in the so-called educated community—in other words, their belief systems (true colours) shone through (expanding cup); non-linearity is counter-intuitive!*

Let us try to understand such a mentality, for it was once my own. The Earth is not an independent spherical object that is unchanging. The biosphere has regenerative properties built into its complexity but these negative feedback loops cannot keep up with our stresses. In other words, we are taking from Earth faster than it can regenerate. Many (if not most) of these stresses come from a mechanisation paradigm that emphasises uniformity, linearity, and maximisation. Resonating with my own jump and modeling from a Model I to a Model II perspective, Shiva (1997) strongly asserts “uniformity and diversity *are not just patterns of land use, they are ways of thinking and ways of living* [emphasis added]” (p. 6). In ecological forestry, for instance, we have life-enhancing systems based on sustainable and renewable¹⁴⁴ management practices that aim to maintain (*optimise*) the conditions for these principles. In (analytic) scientific forestry,¹⁴⁵ we have life-destroying systems based on separation, extraction, market,¹⁴⁶ and maximisation; “these two paradigms are *cognitively and ecologically incommensurate* [emphases added]” (p. 20). Our crisis in perception is not only a lack of diversity, *but also a lack of interrelationships between diverse things*. Today,

human cycles of the social order are antagonistic (hierarchical pathology) to the natural laws of the ecological order. Since the former depends upon the latter we have a problem, an ecological crisis (of perception) to be exact. But, our social order cannot be reduced down to the natural order either (*reductionism*) as the social order has a complexity higher than the natural order which entails that it operates on different cycles and conditions while still embracing natural laws; after all, our bodies are made of Nature, right? The problem is not that we have *left* (differentiated) the biosphere, but that we stand *separated* (dissociated) from the natural system.¹⁴⁷

Suppose I were to give a person a list of various items to place on a farm, say, a barn, pond, orchard, feedlot, house, chicken coop, and so on (go ahead and do this before reading onward). Many people (as far as I have seen and tested with) end up drawing boxes (*uniformity, linearity*). A chicken coop on one corner, an orchard system on another corner, the pond can go here, the house there, and so on (*isolation*). To a permaculturist, all these things have interrelationships and design becomes integral. Where water accumulates naturally in the land, that is where the pond will go. In a uniform plot, the pond can go wherever! The vegetable system can connect (*nonlinearly*) to the pond (*chinampa*) or to the orchard (*integrated food forest*). *In short, creativity is at the heart of permaculture design.*

Simple and complicated systems with small initial conditions (*perturbations*) will return to equilibrium with minimal effects. As a corollary, large perturbations will produce large effects. The dynamics of complex systems, however, are nonlinear; thus, small changes produce large-scale (*butterfly*) effects over short (or long: cycles in cycles) periods of times. Our actions today have devastating consequences for future generations ... or wondrous benefits! For this reason—without the mathematical knowledge of deterministic chaos, I would imagine—the indigenous of North America (and elsewhere) operate on a 7-year law. Their actions (ought to¹⁴⁸) reflect seven generations into the future. Two points are clear: we

(a) disregard long-term planning for short-term benefits and (b) are taught primarily to study phenomena (such as studying the mathematics behind chaos theory) instead of making these findings applicable to our everyday pragmatic, philosophical, and moral (*virtuous*) lives. *If I may be so bold to state: the thinking acquired today is better equipped to study these (dying) systems rather than recognise our inherent (participatory) roles in their decline!*

Furthermore, a nonlinear view understands that our *existence* is meaningful—in more ways than spiritual. Lovelock’s greatest insight saw that our¹⁴⁹ very *existence* “not only made the atmosphere, but also regulated it—keeping it at a constant composition, and a level favorable for organisms¹⁵⁰” (as cited in Capra, 1997, p. 102). *That our very existence sustains the atmospheric conditions for our ability to live and potentially thrive showcases (again) the limitation of the reductionist mentality.* To take a second permaculture example, once we plant a tree in a meadow, the very existence of the tree will create micro-climates of cooler, northern shade and warmer, southern sun (Northern Hemisphere). These micro-effects are dynamic over time (a tree grows, after all) and are important considerations in mimicking ecological succession for co-extensive human (food) systems. To give a simple example, I cannot grow parsley in an unbearably hot climate with full sun in a meadow. However, the very existence of the tree lets me grow parsley. In the desert, once I get a tree growing it will change the soil conditions (less salt, more water-retention, fungi, and so on) so that further trees will find the ecological niche hospitable. Again, the possibilities are endless in our co-creative design process. *Not all existences are good either.* As I detail later on, *existences of mechanical systems self-perpetuate their own existence as they re-enforce the very mechanisation process they depend upon.*¹⁵¹

Complex systems are also ecologically *nested*. So are we: nested in complex unities in further nested unities (in further nested unities) such as the atom in the cell in the organ in the body, and so on.¹⁵² Thus, the *existence* of the school—an important consideration as it

has a mechanical foundation—is nested and contributes its own perturbations—good or bad—in the greater nest it is within (*Gaia*). Many nested systems are scale-free (*fractal*) such as a fern leaf or a tree (branches are miniature trees, twigs are miniature branches). Since complex systems are nested, they are both autonomous (*agency*) and grouped (*communion*) with the more of one, the less of another. Most critical theorists emphasise agency (Bowers, 2010) while *eco-feminists* and *eco-masculinists* (*deep ecologists*) generally favour communion.¹⁵³ Naturally, we are both *natured* and *nurtured* though our co-implicated enaction based on our structure (Davis & Sumara, 2006); “this part-in-whole sensibility is one that has proven elusive within discussions of education [emphasis added]” (p. 140). Such a non-demarcated view requires that we reverse how we view boundaries in both *self-organism* and *organism-environment*.¹⁵⁴ In complex systems we have ambiguous boundaries—mathematically we have the coastline paradox. We tend to see ourselves as materialistic and rationally (mentally) closed. Both are wrong. We are organisationally closed “in the sense that we are inherently stable—that is, [our] behavioral patterns or internal organizations endure, even while they exchange energy and matter with their dynamic contexts” (p. 6). *It is lamentable that we feel we are materially isolated from our environment when it is the reverse: we are organisationally closed¹⁵⁵ and environmentally open (ambiguously bounded)!! In spiritual contexts we are even more open than we would like to (falsely) believe!!*

The last point concerns our biological *structure*¹⁵⁶ and learning systems as *structure determined*. A structure determined organism is not deterministic,¹⁵⁷ rather, it embodies its history and “can change *its own* structure as it adapts to maintain its viability within dynamic contexts” (Davis & Sumara, 2006, p. 6); our structure is both determined and free (Capra, 1997). Such a capacity to self-replicate is called *autopoietic*.¹⁵⁸ In the Santiago Theory of Cognition, our structure “does not react to environmental stimuli through a linear chain of

cause and effect, but responds with structural changes in its nonlinear, organizationally closed, autopoietic network” (p. 269). Even the Earth is seen to be autopoietic!¹⁵⁹ So all these terminologies, such as non-linearity, self-organisation, far-from-equilibrium, and so on, properly belong to Model II. *And even though Model I does not take these terminologies into consideration—nor taught them—does not mean they are not happening!!*

A Brief History of Cybernetics Alongside the Inherent Reductionism Toward the Mathematical Order as Applicable to Contextualising the Educational Theory of Learning Systems

To contextualise Humberto Maturana’s (1928–present) and Varela’s *post*-cybernetic insights it would be prudent to understand what *cybernetics* is, how it developed, why, and in what *context*. My aim is to show the collapse to the mathematical order since early cyberneticists were *mathematicians* concerned with “concepts of feedback and self-regulation and then, later on, to self-organization” (Capra, 1997, p. 52); they wanted to discover “the neural mechanisms underlying *mental phenomena* and [express] them *in explicit mathematical language* [emphases added]” (p. 52) which to Guénon is both absurd and expected as collapsing all qualitative orders down to quantity is precisely the “reign of quantity” he emphasised throughout his life works. Cyberneticists, like John Von Neumann (1903–1957), were highly influenced, *intersubjectively*, in the context that paralleled the *mind* to a *computer*—a context we are still burdened with today! Akin to Descartes’s metaphor of a *clock* to describe a body, computation is the dominant metaphor in education for the acquisition of information:

The computer model of mental activity became the prevalent view of cognitive science and dominated all brain research *for the next thirty [even fifty] years*. The basic idea was that human intelligence *resembles that of a computer* to such an extent that cognition—the process of knowing—can be defined as *information processing*—

in other words, as manipulation of symbols based on a set of rules. (p. 67)

While computational cognitivism extended previous limitations (Kuhnian paradigm), it “had *hardened into a dogma, as so often happens in science. ... [U]nderlying assumptions were hardly even questioned anymore [emphases added]*” (Capra, 1997, p. 67)!! In a similar way, “computers and the many other ‘information technologies’ developed ... are rapidly becoming autonomous and totalitarian, redefining our basic concepts and *eliminating alternative worldviews [emphasis added]*” (p. 69). Educationally, *metatechnologies*, as Neil Postman (1931–2003) expressed, “have come to dominate industrial societies around the world. ... Increasingly, all forms of culture are being *subordinated [infra-human]* to technology and technological innovation, rather than the increase in human well-being, has become synonymous with *progress*¹⁶⁰ [emphases added]” (p. 70). Thus, a “spiritual impoverishment and loss of cultural diversity through excessive use of computers is especially serious in education” (p. 70). On a positive note, cyberneticists did successfully abandon the Cartesian notion of linearity as feedback structures are *nonlinear*. Also, theorists like Norbert Wiener (1894–1964) “made a clear distinction between a mechanistic *model* and the *non-mechanistic living system* it represented [emphases added]” (p. 65). And the pattern of circular causality of feedback (loops) introduced by the cyberneticists “led to *new perceptions* of the many self-regulatory processes characteristic of life. Today we understand that feedback loops *are ubiquitous in the living world [emphases added]*” (p. 59). In Nature, there are two kinds of feedback loops: self-balancing (or “negative”) and self-reinforcing (or “positive”). The positive (or “run-away”) feedback loops were considered detrimental (“vicious circles”) to cyberneticists.¹⁶¹ Thus, they focused on “self-regulatory, homeostatic processes in living organisms. Indeed, purely self-reinforcing feedback phenomena are rare in nature, as they are usually balanced by [larger] negative feedback loops” (p. 63). Such discoveries are historically significant scientifically as “cyberneticists clearly distinguished

the pattern of organization of a system from its physical structure—a distinction that is crucial in the contemporary theory of living systems [emphases added]” (p. 64).

Coincidentally, “the study of structure has been the principal approach in Western science and philosophy and as such has *again and again eclipsed the study of pattern* [emphasis added]” (p. 158). Therefore, we have the cup → plate:

$$\{\text{substance/structure}\} \rightarrow \{\text{substance/structure, form/pattern}\}$$

While structure involves measurable quantities, form involves *qualities*—a configuration or map of relationships. The study of pattern is crucial in understanding living systems because systemic properties—which are properties of patterns, hence my emphasis on recognising patterns—arise from networks of (dis)ordered relationships. A critique against reductionism is obvious, since “what is destroyed when a living organism is dissected *is its pattern*. The *components are still there*, but the configuration of relationships among them—the pattern—*is destroyed*, and thus the organism dies” (Capra, 1997, p. 81). Therefore, commensurable to *pathologos* (belief pattern)¹⁶² most “reductionist scientists *cannot appreciate critiques of reductionism, because they fail to grasp the importance of pattern* [emphasis added]. They affirm that all living organisms are ultimately made of the same atoms and molecules that are the components of inorganic matter” (p. 81) such that the laws of biology are “reduced to those of physics and chemistry.¹⁶³ While it is true that all living organisms [have] atoms and molecules, they are not ‘nothing but’ atoms and molecules [expanding cup]. There is something else to life, something nonmaterial and irreducible—a pattern of organization” (p. 81).

One breakthrough for cyberneticists was the discovery of the pattern of *self-organisation*, “perhaps *the* [emphasis his] central concept in the systems view of life” (Capra, 1997, p. 83). With the emergence of powerful processing computers, cyberneticists would soon encounter a second breakthrough from their mathematical approach: complexity

theory (nonlinear dynamics) and fractal geometry. Maturana, though highly influenced by the cyberneticists at MIT, led himself away by asking two seemingly different yet surprisingly reconcilable questions: “‘What is the organization of the living?’ and ‘What takes place in the phenomenon of perception?’” (p. 95). In other words, he unified two formerly separate camps of system thinkers: those concerned with the *mind* (cyberneticists) and those concerned with the *body* (biologists). The key to both questions was understanding what constitutes *the organisation of the living*. To Maturana, it was “the ‘circular organization’ of the nervous system¹⁶⁴ ... that allows for evolutionary change in the way the circularity is maintained, but not for the loss of the circularity itself” (p. 96). In other words, the network pattern both *produces* and *transforms (translates)* other components while maintaining its own circular networked structure (*autopoietic*). Therefore, “the nervous system is not only self-organizing, but also continually self-referring, so that perception *cannot be viewed as the representation of an external reality* [emphasis added] but must be understood as the continual creation of new relationships within the neural network” (p. 96). Even more radically, Maturana announced that “living systems *are cognitive systems [learning systems]*, and living as a process is a process of cognition. This statement is valid for all organisms, with and without a nervous system [emphasis added]” (as cited in Capra, 1997, p. 97). Cognition—the process of life—creates and maintains its own pattern in a process called *autopoiesis*. Such organisational closure implies the order and behaviour of a self-organising living system “are not imposed by the environment but are established by the system itself. In other words, living systems are *autonomous. This does not mean that they are isolated from their environment* [emphases added]” (p. 167). The idea that the process of life is equivalent to cognition (*res cogitans*) is not reductionistic (read: mechanical) but it does suffer from subtle reductionism—a point that will have to wait until Model III.¹⁶⁵

The pattern of life both produces and preserves itself by a boundary (*membrane*)

such that the product of a living systems operations is its own organisation. As Capra (1997) stated, “the *structure* of a system is the physical embodiment of its pattern of organization” (p. 159). In a machine, components are fixed, but in a living system, all components continually undergo change since there is a ceaseless flux of matter and energy.¹⁶⁶ The Santiago Theory of Cognition, the brainchild of Maturana, “promises finally to overcome the Cartesian division between mind and matter”¹⁶⁷ (p. 172). In Descartes’ view the mind was *the thinking thing (res cogitans)*¹⁶⁸ but in the Santiago Theory mind is a process of life, not a ‘thing;’ such a conceptual advance, according to Capra (1997), represents a unified view of mind, matter, and life. Varela himself, prior to his early death, would attempt to bridge enactivism with Buddhism and began the discipline of *neuro-phenomenology* to bridge interior and subjective states with exterior and objective states with a focus on mindfulness (Varela, Thompson, & Rosch, 1993).

To return to structural coupling and *learning systems*, far from a demarcated conception (Model I) of learner, learning, and learned—or student, information, teacher—we have instead a concept of co-evolution (Model II) since all living (and nonliving) things are in constant interaction. There are two forms of environmental changes: developmental (new structures) and cyclical (*renewed structures*). These *actions* and *en-actions* as influenced—but not directed¹⁶⁹—by our environment is what is known scientifically as *structural coupling*; “as a living organism responds to environmental influences with structural changes, these changes will in turn alter its future behaviour. In other words, *a structurally coupled system is a learning system* [emphasis added] ... a living organism will couple structurally to its environment” (p. 219). Over time, the organism’s structure “is a record of previous structural changes and thus of previous interactions. Living structure is always a record of previous development, and ontogeny—the course of development of an individual organism—is the organism’s history of structural changes” (p. 220)! *Think: Does the*

(atmosphere of) the school embody its mechanical (or ecological) history? In Model I the school is independent of such notions!

An Overview of Ecological Theory in Educational Theory

Ecological theory and complexity theory have as their common root (or bifurcation point) interobjective sensibilities; both are attentive to the interrelationships and interdependences of phenomena in an unfolding and enfolding universe. Davis (2004) noted that “the concept of interobjectivity is presented as a direct challenge to the metaphysician’s desire for objective or observerless observations” (p. 145). Again, Davis errs completely in mistaking what metaphysics is, taking a Model II perspective and not a Model III perspective. No matter.¹⁷⁰ Most ecological theories stem from ecofeminism, deep ecology, ecopsychology, and ecospirituality (*nature mysticism*¹⁷¹). Emphasis is placed on a return to nature, thus a return to the Earth, the feminine principle, Gaia, and our *bodies*. Our enchanting (presumably *pagan*) world had become disenchanted: an “objectified world dominated by an ‘instrumental’ or ‘technical’ rationality”¹⁷² (Wilber, 2000b, p. 427). Mechanically, the summation of parts described the whole; *ecologically, the whole is more than the sum of its parts. When emphasis shifts from parts to their interrelationships, higher orders of complexity emerge from their interactions. We cannot explain higher orders of complexity from lower or abstracted parts alone.*

For ecofeminists, our world is not *anthropocentric* (human-centred), but *androcentric* (male-centred) and *phallogentric* (male-privileged). Ecologists advocate *heterarchy* (network-logic) as opposed to *hierarchy* (presumably seen as *patriarchal*) and interrupt discriminations between complex and non-complex (by virtue of a consciousness and the human brain), human and nonhuman (by virtue of a soul), humans and animals (by virtue of reason), and so on. However, these discourses diverge since complexity thinking “described itself in the *detached rhetoric* of modern science and concerns itself more with

the workings than with the *meanings* of things [emphases added]” (Davis, 2004, p. 161). By stressing meaning and *communion* (over agency), deep ecologists also stress *participation* and *ethical* action (over *practical* action). In participatory epistemology, all sentient life-forms (and non-sentient) are inherently valuable and action is *consciously* mediated through moral growth, mindful participation, and spiritual entanglement (Davis, 2004). Without interobjectivity, matters of meaning, value, and conduct are dismissed for (objective) logic—including preservice teacher education; such dismissal “seems to fit the increasingly *anachronistic* phenomenon of the public school—an *artifact of modernism* that in some ways persists in its centuries-old emphasis on equipping learners with the attitudes and knowledge appropriate to 16th-century¹⁷³ society” (p. 176).

知人者智，	
自知者明。	<i>Knowing others is wisdom, but knowing oneself is superior wisdom,</i>
勝人者有力，	<i>(one's own nature being most hidden and profound).</i>
自勝者強。	<i>Imposing one's will on others is strength; but imposing it on oneself is superior strength,</i>
知足者富，	<i>(one's own passions being the most difficult to subdue).</i>
強行者有志，	<i>Being satisfied (being content with what destiny have given) is true wealth;</i>
不失其所者久，	<i>being master of oneself (bending oneself to the dispositions of destiny) is true character.</i>
死而不亡者壽。	<i>Staying in one's (natural) place, (that which destiny has given), makes for a long life.</i>
	<i>After death, not ceasing to be, is true longevity.</i>
	<i>Dào Dé Jīng, 33, Derek Bryce and Léon Wiegler Translation</i>

CHAPTER TWO: DECONSTRUCTING EDUCATION

I am struck by the fact that the more slowly trees grow at first, the sounder they are at the core, and I think that the same is true of human beings. We do not wish to see children precocious, making great strides in their early years like sprouts, producing a soft and perishable timber, but better if they expand slowly at first, as if contending with difficulties, and so are solidified and perfected. Such trees continue to expand with nearly equal rapidity to extreme old age.

— Henry David Thoreau

From a biological understanding, every human being is equally powerful in their creative ability to shape the planet.

— Bruce Lipton

The best education consists in immunizing people against systematic attempts at education.

— Paul Karl Feyerabend

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.

— Alvin Toffler

Science is not sacrosanct. The mere fact that it exists, is admired, has results is not sufficient for making it a measure of excellence. Modern science arose from global objections against earlier views and rationalism itself, the idea that there are general rules and standards for conducting our affairs, affairs of knowledge included, arose from global objections to common sense.

— Paul Karl Feyerabend

It is an interesting phenomenon that we are beginning to see two trends approach educational philosophy. The first is Mindfulness deriving mainly from the qualitative East and the second is complexity which is predominantly quantitative and Western.¹⁷⁴ Whereas complexity, with much coincidence, is itself an emergent property of what is colloquially termed *the new sciences*, Mindfulness itself is extremely old, dating far beyond when written language became standard. While mindfulness research gone into education is mounting, I will explore exactly *how* mindfulness fits into different frameworks of education based on historical and scientific considerations; specifically, mindfulness will take on different roles depending on the framework itself! Although mindfulness can be successfully applied to any model, I showcase how Model II allows mindfulness to take on an *organic* role, whereas Model III sees mindfulness as *organic* and *central* to educational reform. For instance, in

Model II, post-Modern concepts aim to *correct* prevalent trends toward mind-body duality and linearity respectively, and would thus see mindfulness as useful (read: pragmatic) for participatory awareness to connect mind, body, life, and environment—all reasons I am in favour of, of course.

These trends are indicative of a systemic failure in our current conceptualisation of Westernised education. Otherwise, why would we see the necessity, matched only by the speed of its urgency, of educational reform? Educational philosopher and theorist Sir Ken Robinson (1950–present) stated recently that we cannot *reform* a broken system; we need to *revolutionise* education—that is, discuss and adopt a new (Kuhnian) paradigm. Like the word sustainability, *paradigm* has fallen into disarray:

Kuhn, in one of the great misunderstood concepts of our era, pointed out that normal science proceeds by way of exemplary injunctions—that is, shared practices and methods that scientists agree disclose and address the important issues of their field.

Kuhn called such an agreed-upon injunction an “exemplar” or a “paradigm.” (Wilber, 2000b, p. 282)

According to Wilber (2000b), the three stages of *knowledge* are injunction, illumination (or apprehension/experience), and communal confirmation (or refutation). These injunctions may relate to any monological, dialogical, or translogical explanation for emotional, mental, or spiritual experiences. These *paradigms* are not necessarily anti-scientific, though they tend to appear that way by debasing previous theories as partial, (mis)interpretative, *old*, *anachronistic*, and so on. Therefore, an educational *revolution* allows a paradigmatic investigation into current educational conceptualisations. The first model stems from the inauguration of public school. To present day, the school stands reminiscent of Modernity which formed our mechanistic and parts-based approach to systematic education. The second model, or first alternative, connects the philosophy of

post-Modernity in lieu of the new sciences regarding naturalism, ecology, context, and *systemic thinking*. The third model, or second alternative, casts a net slightly more comprehensive than critical, post-Modernity musings, returning all the way to Platonic metaphysics and our presupposed educational roots. Since mindfulness is absent in modern education, *too often is it simply absorbed into a Model I approach*. Now if the previous pages have left the reader confused (good!), then let us together take a smaller step from the mechanical (Model I) to the ecological (Model II), as opposed to the mechanical to the spiritual (Model III). The interpretive context will be the following cup → plate:

$$\{\text{mechanical}\} \rightarrow \{\text{ecological}\}^{175}$$

In other words, a world that is not Cartesian-Newtonian, but interconnected, organic, and emergent. We can also see such a plate manifest as {uniformity} → {diversity} or {product} → {process, product} and so on. Another cup → plate consideration for our quantitative crisis is:

$$\{\text{systematic}\} \rightarrow \{\text{systematic, systemic}\}$$

Quantitative Crisis

Education reform as a social force concerns environmentally-sensitive issues. The world as it stands is suffering calamity. Climate change (Lovelock, 2007, 2009) has now entered into the consciousness of humanity. We are creating a global water crisis (Barlow, 2007) through the privatisation and continued use of bottled water. Our mechanised agriculture has created a soil crisis as regards fertility (Mollison, 1988). Scientific agriculture has led to “biotechnology and the gene revolution in agriculture and forestry [that] threaten to worsen the trends towards erosion of diversity and centralisation that began with the Green Revolution” (Shiva, 1997, p. 6). And most astonishing is our eating habits where we *manufacture* food instead of *grow* food. Our disconnection from the very life that nourishes us has spawned one of the most inhumane and negligent abuses in the

history of our gastronomical (or lack thereof) society: the abuse of animals and abandonment of heirloom crops. The lack of connection to Earth ties into radical feminism as well, and all these crises of disconnection *spawn other crises as the Earth co-adapts with our increasing stresses upon her*, such as fossil fuel depletion, pollution, biodiversity loss (and subsequent extinction), energy, and so on. At the human¹⁷⁶ level we suffer our own crises: with proclivity toward existentialism, infirmity, hatred, apathy, lethargy, violence, disconnection, fear, and so on, all of which are products of the mind and, perhaps, *symptoms of our framework of education*. I will show mathematically that quantity itself is a crisis later on.

Vandana Shiva¹⁷⁷ (1997) places the calamity in context: stated simply the abuse of the Earth *is* the ecological crisis. David Orr (1944–present) stated that “the disorder of ecosystems reflects a prior disorder of mind, making it a central concern to those institutions that purport to improve minds. In other words, *the ecological crisis is in every way a crisis of education* [emphasis added]” (2005, p. x). Such a view requires (and taught) ecological literacy; the best hope is not in technological cleverness, but in the “possibility that in the long gestation of humankind we acquired an affinity for life, earth, forests, water, soils, and place, what E. O. Wilson calls ‘biophilia’ [and the] possibility of affection [as] part of our evolutionary heritage”¹⁷⁸ (p. ix). Etymologically, crisis derives from the Greek word *krinein* (Greek: *κρίνω*), meaning *to separate* and *decide*. Our crisis is a consequence of our *separation*, or dissociation, from the proverbial Other: whether (angelic,) animal, plant, or mineral. It is also a time for a bifurcation point whereupon we *decide* our path. For me, we need to place spirituality in modern education, for Krishnamurti it is a *crisis of consciousness*, and for Capra (1983), complexity, chaos, and ecological sciences allow us to backtrack our multi-faceted crises to one crisis: a *crisis in perception*:

These [the crises] are all different facets of one and the same crisis, and that this

crisis is essentially a crisis of perception. ... [It] derives from the fact that we are trying to apply the concepts of an outdated world view—the mechanistic world view of Cartesian-Newtonian science—to a reality that can no longer be understood in terms of these concepts. We live today in a globally interconnected world, in which biological, psychological, social, and environmental phenomenon are all interdependent. (pp. 15-16)

The relationship held between educational reform and crises is nothing new. Dr. Rudolf Steiner (1907/1996) talked about educational reform amidst the crises of early 20th-century life. He felt the impression his contemporaries on educational reform were “in the position of trying to meet the demands of modern life with completely inadequate methods. Many try to reform life without really recognizing life’s foundations” (p. 2). He often cited the educational growth of a child as analogous to a plant which “contains within it the seeds of its own future; ... we must penetrate the hidden nature of the human being. Our age is little included to do this” (p. 2). Unlike a plant, however, “human life is present only once ... the flowers it will bear in the future have never been there before” (p. 2). He argues reformers of “the present age can become fruitful and practical only when fertilized by [a spiritual¹⁷⁹] penetration into human life” (pp. 2-3). I could potentially go much further back on the topic of crisis and reform, but only point toward the subject matter at present without dwelling further on it.



Figure 6. A comparison between systematic and systemic approaches. The left figure illustrates the compartmentalised and *linear* way we approach crises. The pattern exemplifies *reductionism*. We *categorise* and *systematically* attempt to resolve each category. The right figure illustrates, through complexity to use Capra’s (2007) example, where or how we can backtrace these crises to a single crisis of perception, thereby apply solutions *systemically* toward a single crisis which spawn other crises. An example would be

Chinese medicine and permaculture. To make the right figure more accurate would entail linking many paths prior to their eventual collapse. The simplicity is for convenience alone.

The crisis of perception has as its symptom *the general ignorance of its existence!!* And “if the Earth is indeed our body and blood, then in destroying it we are committing a slow and gruesome suicide,” (Wilber, 2000b, p. 12) seemingly unaware of—and desensitised to—our participatory nature. Similar views include astrophysicist Carl Sagan¹⁸⁰ (1980), anti-reduction physicist David Bohm¹⁸¹ (2002), and *transpersonal* psychologist Stanislav Grof (1998), who touches on the inner dimension:

In the last few decades, it has become increasingly clear that humanity is facing a crisis of unprecedented proportions. ... The problems that stand in the way are not of economical or technological¹⁸² nature. The deepest sources of the global crisis lie inside the human personality and reflect the level of consciousness evolution of our species. (p. 219)

We are at a historical anomaly which education must address. If we concern ourselves with holistic education, then we must necessarily combine *everything*—such is the meaning of *(w)holism*—in our reconceptualisation of education. Therefore our ecological crisis must be addressed, a calculation I interpret as the *ecological equation of education*. Model I would counteract these measures by simply teaching different (or more) topics based on environmentalism (through epistemic accumulation, no less); perhaps Model I would go so far as to “teach the *whole* child.” But Model II would ask: *where does the school itself fit into the web of life?! How does ecological decay, mindlessness, contemplation, diet, stress, addiction, scientific belief patterns, consciousness, spirituality, diseases, processes, virtue, knowledge, morality, ecology, forests, water, religion, yoga, perception, creativity, and so on, enter into the equation we call schooling?* In a Model I institution we teach facts, and, if these basic demands cannot be met, we systematically

create sub-categories (guidance, tutoring, and so on) to supplement the primary epistemic objective toward *becoming*¹⁸³ *an educated person* ... whatever that means!¹⁸⁴

Model I: An Industrial Approach to Education and Its Historical Context

It cannot be denied that we live in a very *mechanised* culture. One that aims toward indefinite growth, rationalised within the terminology of *progress*. One can trace these conceptualisations to Descartes who attempted to bring the divine down to nature.

Subsequent pedagogical theory arose from his rationalism and Francis Bacon's (1561–1626) empiricism. What came to be known as public education derived from their epistemic and analytic ways of logic. Their efforts, however, set in motion an impetus toward a linear(ised) and uniform(ing) worldview: a mechanical clockwork running down in direct opposition to a biological worldview¹⁸⁵ of creative unfoldment (Prigogine, 1997). These theories arose in the religious crises of seventeenth-century Modernity which saw the emergence of rationality (Toulmin, 1990) overshadowing any form of *theiosis*¹⁸⁶ or *gnosis* (Wilber, 2000b). Furthermore, their attempt at a *metaphysis* (beyond-Nature), inherited from a Scholasticism they hardly understood, into the realm of *physis* (Nature) has led to four centuries of scientific thinking *sub specie æternitatis*. In other words, decontextualised thinking by way of a *uniformisation* of the world.

An inheritance from the consequences of 17th century Modernity was that *certainty* replaced *humanism*, *formal logic* replaced *rhetoric*, and *permanence* replaced the *transitory* (Toulmin, 1990). As Toulmin stated, “One aim of 17th-century philosophers [Descartes and contemporaries] was to frame all their questions in terms that rendered them *independent of context* [emphasis added]” (p. 21). To Shiva (1989), *subject-less knowledge* has created a *dichotomy* and (to me) a blind pattern we exist in—specifically, the “fact-value dichotomy is a creation of modern reductionist science, while being an epistemic response to a particular set of values, *posits itself as independent of values* [emphasis added]” (pp. 26-27). Thus,

(epistemic) truth became independent on who presents it and to whom. “For Descartes and his successors, timely questions were no concern of philosophy: instead, their aim was to bring to light permanent structures underlying all the changeable phenomena of Nature” (Toulmin, 1990, p. 34). A contradictory statement as the aim was to bring immutability to mutable structures. To me, *the end result—Cartesian mechanism—was bound to be the conceptualisation of closed systems:¹⁸⁷ predictable and determinable, therefore controllable!*

To the 16th century humanists, *who also provided a basis for modernity*, “it was best to suspend judgment about matters of general theory, and to concentrate on accumulating a rich perspective, both on the natural world and on human affairs, as we encounter them in our actual experience” (Toulmin, 1990, p. 27). By “carrying Modernity back to a time before Galileo and Descartes, and giving the Renaissance humanists credit for originality ... we open up all kinds of possibilities” (p. 43). Thus, “the opening gambit of modern philosophy becomes, not the decontextualised rationalism of Descartes’ *Discourse* and *Meditations*, but Montaigne’s restatement of classical skepticism in the *Apology*” (p. 42). Applying (our new arsenal of) complexity and emergence to socio-ecological patterns, we can imagine how humanism was suppressed, but never lost (Figure 7); today we can regain *the lost basis of modernity (as I name it); to regain a humanistic quality lost in Cartesian mechanism; yet there is no (conception of) emergence in a complicated, uniforming worldview (Model I)!*

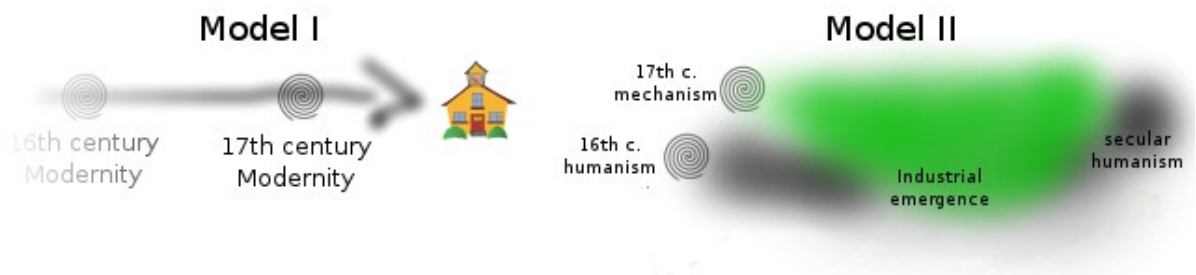


Figure 7. Interplay between mechanism and humanism and their historical embodiment in the schooling framework. The path education has derived from is the continuation of 17th century Modernity, not only in its mechanical formation, but in worldview which gives an impression of a linear progression of knowledge.¹⁸⁸ In such a worldview (Model I) the basis of Modernity can only be 17th century while humanism (as a basis) is slowly lost to view.

The desperation of the times amidst political and religious turmoil provided the conditions in which rationalism and the Quest for Certainty could *emerge* in the socio-cultural correlate of a rational-industrial consciousness (Wilber, 2000b). The notion of two bases of Modernity is quite exciting and only goes to show how life and its history are subject to complexity and emergence; a *sub specie aeternitatis* approach *glosses over such complexity*. Notice how Model II represents a *plate* as it contains Model I while adding complexity and emergence for a higher perspective.

Capra (1997), in discussing the history and flow of scientific ideas, has shown *why* such mechanism exists in our environment today: in short, reductionism and deterministic closed systems that pertain to an outdated Newtonian-Cartesian (billiard ball) universe.

While science itself is moving more toward what Capra calls *systems theory*, subsequent specialisation¹⁸⁹ (read: reductionism) and its inherent mechanical nature fragment our world. The patterns of linearity and uniformity formed the basis of modern philosophy and science (Capra, 1997). The Westernised school aligns with these patterns of an industrial age in what may be referred to as a *conveyor-belt mentality*. Rather than see the school and curriculum as scientifically finely-tuned, ecological complexity, and (true) metaphysical considerations showcase, to me, something quite different: that we have instead *mechanised ourselves into certainty* through the neglect of nonlinear phenomena and mistaken absolutism!¹⁹⁰



Figure 8. Perceptual differences as regards Nature as beautiful from my (Northern) European roots. In a Model I (mechanical) perspective, the left pictures Nature (lawn) as supposedly *ordered* in that it is *managed* and looks *beautiful* since it is *free from weeds*. On the right weeds have flourished and thus the system is *unmanaged* and represents a *chaotic mess*. In a Model II (ecological) perspective, the dandelions, clovers, plantains, and so on, are no longer considered *weeds* but *pioneer plants*. Permaculture shows that their ecological function is to be the first (hence the name *pioneer*) plant to establish itself in disturbed (or non-disturbed healthy) soils for regeneration and protection (from sun). It is indeed chaotic

but there is *order behind the chaos* as each plant maintains micro-nutrient balances within the interrelationships of the soil ecology. For instance, clovers fix nitrogen, dandelions bring up minerals from taproots, and so on. Therefore, when these interrelationships are removed (dissected) the soil has to undergo *re-ordering* to maintain soil integrity. So it is the *manicured* lawn that is truly *disordered*—yet perceived as *orderly*!! Nature speaks in terms of *poly*-cultures (diversity) and redundancy, not *mono*-cultures. It is grass that is truly the weed! We then have to amend the soil ourselves with the very minerals that we took away.

No longer is chaos seen as random, but *ordered*. It is the linear, uniform, and complicated (multi-linear) systems from monoculture agriculture (and lawns) to education that are, in fact, *disorderly*. Yet these trends toward disorder (seen as orderly) are merely perceptual; *has not a mechanical education built the very aesthetic of uniformity as regular, natural, controlled?*

Curriculum: A Sophistication or the End Result of the Mechanisation Process?

Let us explore the consequences of such a pattern (toward uniformity) that relates to the relationship between certainty and the formulation of Westernised education; thankfully we sit at a convenient vantage point to trace back our history of modern science, philosophy, and public education to Descartes, a notable figure of criticism in science and education despite his genius. Since our history is embedded structurally in the past, an important consideration is to see *how* rationalism and natural philosophy has created our world, our perceptions, and (continue to) shape our reality. *A point lost on a rational (Model I) worldview which lends itself to a philosophy of the blind leading the blind or worse: chaining ourselves to see the Platonic shadows as reality!*

René Descartes, the prince of certainty. Why does the phrase *sub species aeternitatis*, designating the domain of *metaphysis* (meta-Nature) and *religion*—that is, *eternity, timelessness*, and so on—find itself in the domain of science or *physis* (Nature) which can admit, at best, a *perpetuity* (Guénon, 1946/1991)? It was Descartes, and the closed physical systems of Newton, that attempted to bring the immutable to the domain of the

mutable—a longing for certainty in uncertain, historical turmoil. These reasons alongside the mind-body split of his *Meditations* has led to the terminology *Cartesian anxiety*:

The nervousness that we feel is rooted in what, following Richard Bernstein, we call the “Cartesian anxiety.” ... The anxiety is best put as a dilemma: either we have a fixed and stable foundation for knowledge, a point where knowledge starts, is grounded, and rests, or we cannot escape some sort of darkness, chaos, and confusion. ... This feeling of anxiety arises from the craving for an absolute ground. When this craving cannot be satisfied, the only other possibility seems to be nihilism or anarchy. (Varela et al., 1993, pp. 140-141)

The attempt toward absolutism *in* naturalism has been historically conceptualised in predictable and deterministic models of closed systems. While Descartes’ *cogito* placed immutability in the mind, Varela et al. regard the ideal of mind acting as a mirror of nature inherently flawed. They rebuke the idea of a pre-given and independent world, stating it as the very cause of the anxiety:

Given the basic logic of representationism, the tendency is to search either for an outer ground in the world [body-organism-environment] or an inner ground in the mind. By treating mind and world as opposed subjective and objective poles, the Cartesian anxiety oscillates endlessly between the two in search of a ground. (p. 141)

It would be unproductive to identify *all* the prejudices of our times (and prior) that influence scientific theorising; *the idea itself is already profound* as science is generally divorced from our mental and socio-cultural spheres of influence (including our own). Yet, the history of cognition bears intrigue.

A brief history of cognition. The study of the mind has historically been the domain of philosophers and psychologists. The height of philosophical materialism—embedded in the materialistic culture that gave birth to many quantitative conceptions—saw cyberneticists

attempt to quantify the mechanisms of the mind. Thus, the first (and still dominant¹⁹¹) branch of what would be termed cognitive science was intimately linked to *computation*¹⁹² and *mathematical logic* (Varela et al., 1993). The school of thought was termed *cognitivism*. In short, cognitivists were interested in symbols and “cognitivism introduced symbols as a way of bridging the need for a semantic or *representational level with the constraint that this level be ultimately physical* [emphasis added]” (p. 99). Thus, a computer connects symbols with their mapped meaning *while operating only on their physical form*; “the separation between form and meaning was the masterstroke that created the cognitivist approach—indeed, it was the same one that had created modern logic” (p. 99). The strength of the *array* which led to numerable (*predictive*) triumphs in modeling human systems was also its greatest weakness, for how do the symbols acquire their meaning? By presupposing a map (generally 1:1) between form and meaning, which largely depends upon experience no less, “the form of the symbols is all that is left, and meaning becomes a *ghost*¹⁹³ [emphasis added]” (p. 100). In short, the underlying assumptions of cognitivism are (a) that intelligence presupposes an ability to situationally represent the world (not argued), and (b) “that cognition consists of acting on the basis of representations that are physically realized in the forms of a symbolic code in the brain or a machine” (p. 40) which is controversial,¹⁹⁴ if not an overtly oversimplified approximation limited to high-end cognitive processing (Varela et al., 1993) or computers at best. Unfortunately, such *linear* “cognitive science offers us a purely theoretical discovery, which remains remote from actual human experience, of mind without self” (p. 125).

Biologically, our brains showcase “no rules, no central logical processor, nor does information appear to be stored in precise addresses” (Varela et al., 1993, p. 85) since “brains can be seen to operate on the basis of massive *interconnections* in a distributed form, so that the actual connections among ensembles of neurons *change as a result of experience*

[emphases added]” (p. 85). The self-organising capacity in neural ensembles “is nowhere to be found in the paradigm for symbol manipulation” (p. 85). The inflexibility of computational logic contradicts the flexibility and resiliency of our biological nature—usually without compromise of intelligence. Thus, in the model of cognitivism, “the mind was divided into two radically different regions, with an unbridgeable chasm between them—the subjective mental states of the person and the subpersonal cognitive routines [cyberneticist approach] implemented in the brain” (Thompson, 2007, p. 6). Cognitivism could offer no account of subjective experience and perpetuated cognition in a materialist form. Worse, rather than solve the mind-body problem, it created “a new problem, the *mind-mind problem*. This problem is a version of what is known as the ‘hard problem of consciousness’” (p. 7). Now there were *two* minds: a computational mind dealing with subpersonal, symbolic, and unconscious processes and a phenomenological mind dealing with personal, conscious experience. Cognitivist and linguist Ray Jackendoff attempted to theoretically remedy such an abysmal situation by postulating that conscious awareness *can be reduced to an externalisation or projection of the computational mind!* A consequence of “his theory reveals the disunity of the cognizing subject [and pairs] cognitive science *with a pragmatic, mindful, open-ended approach to human experience, such as we find in the [Eastern] mindfulness/awareness tradition* [emphasis added]” (p. 53)! But Varela et al. are not so easily deceived, as Jackendoff

assumes that everyday—largely *mindless*¹⁹⁵—experience provides access to all the relevant phenomenological evidence and that the phenomenological quest is limited to just that largely mindless state. *He considers neither the possibility that conscious awareness can be progressively developed beyond its everyday form*¹⁹⁶ *nor that such development can be used to provide direct insight into the structure and constitution of experience* [emphasis added]. (p. 54)

Connectionism, arising in the early 1980s (Thompson, 2007), was the second model of cognitive science to remedy the deficiencies of cognitivism. Connectionism started a cognate system “with simple components that would dynamically connect to each other in dense ways. ... Each component operates only in its local environment, [and alongside] the system’s network constitution, there is a global cooperation that spontaneously emerges”¹⁹⁷ (Varela et al., 1993, p. 88). Thus, no central processing unit is required as the passage from *local rules* to *global coherence* represents emergence, network dynamics, nonlinear networks, or complex systems. Moreover, *symbolic computations* were replaced by *numerical operations*; “a single, discrete symbolic computation would, in a connectionist model, be performed as a result of a large number of numerical operations that govern a network of simple units” (p. 99). Consequently, connectionism was *nonsymbolic* in its approach as “meaningful items are not symbols; they are complex patterns of activity among the numerous units that make up the network” (p. 99). The shift from cognitivism to connectionism implied the shift from the “idea of mind as an input-output device that processes information toward the idea of mind as an emergent and autonomous network” (p. 151). The central metaphor was no longer the computer, but the neural network. While the cognitivist model in many ways abstracted mind (mathematically) away from the body, the connectionist model was a return to biological roots—but connectionism went too far, collapsing the mind to the brain! While connectionism dealt with nonlinear emergent networks (Model II) over the linear arrays of cognitivism (Model I), we end up in the context of a *mind-in-brain* error.¹⁹⁸

In (psuedo-)metaphysics,¹⁹⁹ contemporary cognitive science did not distinguish between the idea or representation of a Self and the actual basis of that representation; it even challenged the idea that there is an unchanging Self! Despite their overtly physical stance, “cognitive science does not yet take seriously its own findings of the lack of a Self”

(Varela et al., 1993, p. 124) either! I believe the root error is deriving the greater from the lesser, the metaphysical from the physical, the mind from the brain (Guénon, 1945/2004). The context for these worldviews is materialism (read: corporeality) that prevails today; not a mere theoretical dilemma but an endemic worldview in Westernised culture! Nonetheless, both “cognitivism and connectionism left unquestioned the relation between cognitive processes and the real world. As a result, their models of cognition were disembodied and abstract” (Thompson, 2007, p. 10). Cognitive processes were either instantiated in the brain abstracted from biology or represented mentally in symbolic (or subsymbolic) processes abstracted from environment.

As Varela explained, “the ‘old biology’ was based on ‘heteronomous units operating by a logic of correspondence,’ whereas the entire essence of the new biology is ‘autonomous units operating by a logic of coherence’” (as cited in Wilber, 2000b, p. 48). From such sensibilities arose the third cognitive model, *embodied dynamicism*, which attempted to remedy such abstractions; from self-organising dynamic systems (*connectionism*) it added “that cognitive processes emerge from the nonlinear and circular causality of continuous sensorimotor interactions involving the brain, body, and environment” (Thompson, 2007, pp. 10-11). The central metaphor became “the mind as embodied dynamic system in the world” (p. 11) and emphasised “that cognition is an intrinsically temporal phenomenon and accordingly needs to be understood from the perspective of dynamic systems theory” (p. 11).

From embodied dynamicism came the fourth (and to date, final) cognitive model: *enactivism*.²⁰⁰ In short,²⁰¹ the enactive approach “aimed to build bridges between embodied dynamicist accounts of the mind and phenomenological accounts of human subjectivist and experience” (Thompson, 2007, p. 13). In the words of Varela: “*Wanderer the road is your footsteps, nothing else; you lay down a path in walking* [emphasis added]” (as cited in Thompson, 2007, p. 13). An enactive system is a complex learning system that is

autonomous yet structurally and historically coupled to its environment. Rather than a static, *performed* world, it becomes a dynamically *performed* world (Davis, 1996). Similarly, Capra (1997) stated that “cognition is not a representation of an independent, pregiven world. What is brought forth by a particular organism in the process of living is not *the* world but *a* world, one that is always dependent upon the organism’s structure” (p. 270). *Thus, neither biologically nor mentally are we uniform! Yet, Westernised education remains uniform since it is complicated (or simple).*

Nonetheless, to reconcile our *worldly malaise* of uncertainty, anarchy, or nihilism, Varela et al. (1993) speak influentially on the Middle Way of Buddhism; in particular, the Abhidharma doctrine of *Hīnayāna* mindfulness as it relates to their enactive paradigm of cognition and the Eastern concept of *pratītyasamutpāda*. While enactivism is the first scientific paradigm to utilise meditative/mindfulness to bridge interior states of lived experience with exterior cognitive science, it does so monologically (Wilber, 2000b)! As Wilber stated, these theorists do not go far enough in their theorising and in turn focus on a reductive and partial—if not downright inaccurate—Eastern Buddhist doctrine of *no-self* and *selfless minds* and connect it with a hyperreductive Western cognitive framework of *mindless minds* (*seen as selfless minds [false paradox²⁰²]*)! Therefore, “it builds bridges precisely to the aspects of various theories [*Hīnayāna* psychology and cognitive science] that ought to be rejected, not integrated” (p. 737). Nevertheless, the point of connecting mindfulness and awareness training in *enacted*—as opposed to *computational* (Jackenoff) or *numerical*—lived experience is a paradigmatic step in the right direction. *None of the aforementioned mindless cognitive models (before enactivism) can include mindfulness, making these theories (and theorists) quite advanced; so much so that professional spheres still conceptualise in the cognitivist or connectionist framework!*²⁰³

René Descartes, cogito ergo sum. While our search for certainty is perhaps ingrained

in a fear of under-providing shelter and food, our (*gross*) mind itself is not immutable²⁰⁴—an error having only occurred in absence of any transcendental Self in the *spirit* (or lack thereof) of a Modernised mentality:

$$\{\text{body, mind}\} \rightarrow \{\text{body, mind, ...}\}$$

In a {body, mind} context, mind must be independent as no other part of our constitution exists. Yet as we have just seen, the mind (through cognition) is recursive (a process of living) or discursive (*dialectical*), neither of which are immutable. An idea immediately obvious in Hinduism where the mind (*manas*) is transcended by the intellect (*Buddhi*). Regarding *sub specie aeternitatis*—whether of the mind or any structure that exists—many post-Modernists recognise the problem of timelessness and critique metaphysics harshly, abandoning it completely.²⁰⁵ Context-free thinking has led to *mindlessness* (Langer, 1989) and the curious notion that our ability to think and perceive is seen as independent of time; yet these uniform assumptions are in contradiction to the evolutionary premise that developed them!²⁰⁶ Moreover, the (non-linear) emergence of rationality and Modernity *were not a consequence of a linear, Darwinian process of scientific speculation arising autonomously through internal argumentation.*

Rationality came to fruition through the political and religious crises of 17th century European life. Ironically we find ourselves on the opposite side of the coin. While Descartes' *Meditations* and denigrated phrase *cogito ergo sum* ("I think, therefore I am"), brought scientific times in search for certainty ... chaos and complexity science acknowledges *uncertainty* as the new laws of science (Prigogine, 1997). So for a post-Modern context (Model II)—an over-stimulating, propagandist environment—better the Eastern phrase I think therefore I am not, only when the mind is silent, I am.²⁰⁷ To Coomaraswamy (1987), the "Cartesian *cogito ergo sum* is an absolute *non sequitur* and argument in a circle. For I cannot say *cogito* truly, but only *cogitatur*. 'I' neither think nor see, but there is Another who

alone sees, hears, thinks in me” (pp. 427-428). Perennially,

rationalism is the thought of the Cartesian “therefore,” which signals a proof; this has nothing to do with the “therefore” that language demands when we intend to express a logico-ontological relationship. Instead of *cogito ergo sum*, one ought to say: *sum quia est esse*, “I am because Being is”; “because” and not “therefore.” The certitude that we exist would be impossible without absolute, hence necessary, Being, which inspires both our existence and our certitude.²⁰⁸ (Schuon, 1991, p. vii)

We shall continue our story on rationality in section *Rationalism revisited*. For now, let us investigate why placing uniformity or linearity upon non-linear frameworks is cause for concern.

From parts to wholes. Education conforms to the linear and uniform patterns that built the industrial revolution, heralding linear efficiency²⁰⁹ and maximised output over ecological, spiritual, or otherwise *conscience* concerns. Modern schooling has also sustained these mechanical, linear, and causal (horizontal) beliefs that filter into our thinking (systematically as opposed to systemically, mindlessness versus mindfulness, complicated versus complex), acting (*non-unified* action versus participatory action), and perceiving (*uniform order* as opposed to *non-uniform order*). Context-free thinking, for example, can never show our socio-cultural (historical, political, and so on) embodiment, thereby falsely divorcing us from our collective, embodied past! *A point to over-emphasise—relating to our intersubjectivity—is that we are all experts in reductionism à la Descartes.*

Etymologically, the word physics derives from *physis* which means *Nature*. However, due to the compartmentalisation of science (and education) we now see nature as comprising physics alongside chemistry, biology, ecology, and psychology. So the etymological meaning has been lost, as has its predecessor metaphysics, for all intent and purpose. Yet anything not in the domain of physics is seen as becoming more subjective. Or,

in a hyper-reductive perspective, physics can explain all natural phenomenon including those domains of chemistry, biology, ecology, and psychology. So certainty has generally been sought out in terms of parts and control parameters. Yet, if truth resides in physics, where does that leave other subjects? An underlying assumption inherited through a particular education is the idea that examining the parts leads to understanding the whole.²¹⁰ With reductionism in mind, the smallest (sub)particles seem to offer us the greatest quantitative (mathematical) certainty.

One term already discussed is *emergence*. Consider the example of salt. According to reductionism, if we take all the information we know about sodium (subset A) and chlorine (subset B) and place them together we should find salt in set $(A \cup B)$. However, analysing $A \cup B$ does not contain information on salt at all! The formation of salt occurs as an *emergent property*. Although salt (NaCl) *preserves* Na and Cl, it has a greater complexity chemically than simply Na and Cl studied from an atomic analysis. In general, Capra noted that chemistry has a *greater complexity* than physics, and likewise biology has a greater complexity than chemistry and physics. Thus, all ecological movements would proclaim: *the whole is greater than the sum of its parts*. And for the past several decades, such a systemic mentality has taken hold in scientific thought and literature²¹¹ (Model II). As Wilber (2000b) noted, those domains that offer greater complexity are not more subjective, rather, they are more *significant*. So chemistry is less fundamental than physics yet more significant. And psychology, as a corollary, would be the most significant and the least fundamental. As Capra (1997) concluded, when we study *life*, science is shifting more toward the domain of biology and away from physics.²¹²

Uniformity and diversity. Still within our original {mechanical \rightarrow ecological} interpretative set, a perception of *uniformity* as *orderliness* is a consequence of our reductive or atomistic roots. Recalling Figure 4, the elaborated set is {mechanical: {uniformity}},

ecological: {diversity}} to overcome Capra's *crisis in perception*.²¹³ In the context of agriculture, once we have a uniform system devoid of its original interrelationships,²¹⁴ we then have to centrally manage and maintain those relationships (water, fertiliser, integrated pest management, and so on) in order to maximise yield and diminish *irregularities* such as pest and fauna damage. Under a *closed* system analysis these irregularities are conceptualised *outside* the system and are detrimental to it. Pursuing systematic rectifications require high amounts of *energy*;²¹⁵ often these interventions only stress the ecosystem further.²¹⁶ *But no one waters a forest*. In a forest, symbiotic relationships are ubiquitous.²¹⁷ As Zen practitioner and agriculturist extraordinaire Masanobu Fukuoka (1978) pointed out in his *One Straw Revolution*,²¹⁸ nature provides everything for the wild grain to grow healthy and strong without human intervention.²¹⁹ But the greater we restrict the natural system to serve *only* human needs, the greater the *emergence* of problems arise, such as animals eating the bark as opposed to the fruit, or pests accumulating due to the loss of natural predator habitat. Spraying occurs, offsetting further control mechanisms. Damage and disease result offsetting even greater control mechanisms. Crop specific products are used, further segregating crops into monocultures. All these are systematic solutions to systemic responses (*linear bootstrap process*). Fukuoka²²⁰ uses the example of pruning: once you start pruning you have to keep pruning (watershoots and other branches) and use sprays to offset the diminished immune system of the tree. *The very existence of pruning and spraying self-perpetuate their use—all in the name of certainty*.

When contrasting Fukuoka's grain field to a modern (Japanese) farm, he did not necessarily have less certainty as regards grain production. Instead, during his life-time, his annual grain yields matched "the top yields in Ehime Prefecture ... one of the prime agricultural areas in Japan. And yet [his] fields [had] not been plowed for twenty-five years" (1978, p. 1). The uncertainty in his farm was the resilient and optimised ecosystem that

supported these yields. Each year saw similar grain yields among different predators: contingent on the interdependencies between them, their predation, and the environment that circumstanced the farm. In short, it was “a balanced rice field ecosystem. Insect and plant communities maintain a stable relationship here. It is not uncommon for a plant disease to sweep through this area, leaving the crops in these fields unaffected” (p. 33). By slowly removing all inter-dependencies to gain access to the parts, we begin to establish a pattern toward mechanical systems (Figure 4). The ecosystems, never truly closed, acts in accordance with their deficiencies. These deficiencies are then reversed by building back up to the whole, albeit in absence of the original interrelationships. These interrelationships were long destroyed by the theoretical analysis and physical dissection of the whole into (isolated) parts. *Often these efforts degrade creativity by mechanising into one way of doing things, from chemically sophisticated horticulture to curriculum, lesson, and grades.*

For Shiva (1997), uniformity has flowed beyond agriculture and into the psychological domain. Educationally, we are creating *monocultures of the mind*; worse, “the universal/local dichotomy²²¹ is misplaced when applied to the western and indigenous traditions of knowledge, because the western is a local tradition which has been spread world wide through intellectual colonisation” (p. 10). Local knowledge is made to disappear through modernisation by violently “denying it the status of a systematic knowledge, and assigning it the adjectives ‘primitive’ and ‘unscientific.’ Correspondingly, the western system is assumed to be uniquely ‘scientific’ and universal” (p. 10). These trends have less to do with knowledge and more with *power masquerading as knowledge, one blind to alternatives* (Shiva, 1997). Similar to pruning (and complexities of *existence*), “dominant knowledge also destroys the very *conditions* for alternatives to exist, very much like the introduction of monocultures destroying the very conditions for diverse species to exist” (p. 12). In the meta-schema of critical (agentic) theories, a loss of intergenerational knowledge is inevitable

as supporting cultural, ecological, and communal sustainability blocks universal emancipation (read: agency). The result is an industrial model for provisions—the same model critical theorists are against (Bowers, 2010)! Another application is *redundancy*. As Davis and Sumara (2006) bemoan, “the word *redundancy* tends to be associated with aspects that are unnecessary or superfluous and that contribute to inefficiencies—a usage that is appropriate to descriptions of complicated systems, but that is not suitable for descriptions of complex²²² unities” (p. 138). Logically, minimising redundancy develops high specialisation context-appropriate for stable systems (agency) while maximising redundancy develops low specialisation (communion) for unstable systems. Therefore, *specialisation*, defined as “the dynamic combination of diversity and redundancy [must] consider *simultaneously* the individual agents and the collective system” (p. 138). In critique of co-operative or collaborate group-based learning, which would at first glance emphasise diversity among agents, “one cannot impose diversity from the top down by naming one person a facilitator, another a recorder, and so on. Diversity cannot be assigned or legislated; *it must be assumed to be present* [emphases added]” (p. 138). Similar goals are unneeded as “the vibrancy of complex unities arises in the mix of its redundant and its diverse elements” (p. 139).

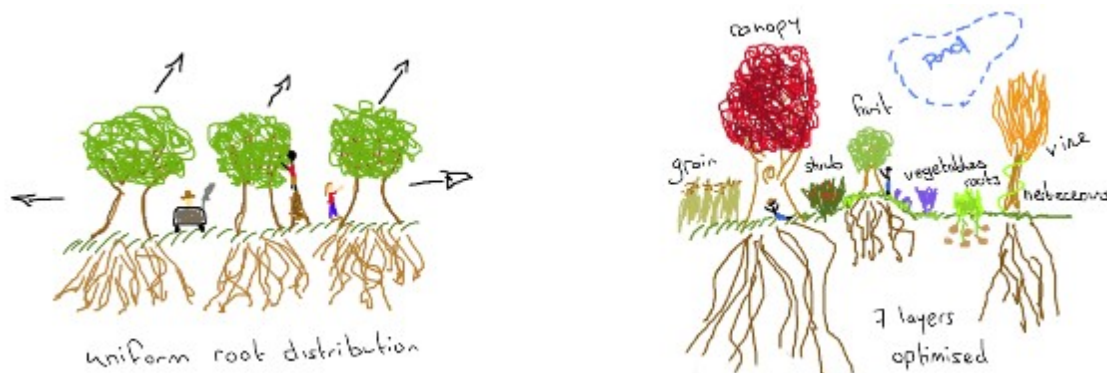


Figure 9. A modern orchard in contrast with a permaculture food forest. In the modern orchard system we see only monocultures. From these monocultures we must regulate the rest of the interdependencies ourselves. Uniformity is simply a scientific convenience. Moreover, the necessity to apply various sprays and harvesting procedures in the form of

mechanical equipment *further re-enforce the need for rows!!* In the permaculture food forest we see seven co-existing and interdependent layers. They are from top to bottom: vertical (vine), canopy, tree, shrub, grain, herbaceous, and root. Rather than the ideal to get rid pests (and predators), they are properly balanced leading to very little damage. By altering relationships damage increase, which further necessitates control mechanisms.

Linearity and non-linearity. We inherited two mathematical tools from the late nineteenth century mathematicians. The first were “exact, deterministic equations of motion ... and the equations of thermodynamics, based on statistical analysis for [complicated] systems” (Capra, 1997, p. 122). Both techniques featured *linear* or *linearised* equations for a 20th century clockwork worldview. Of course, science is continually evolving in paradigmatic (discontinuous) leaps—but can we also isolate science from our general and acquired perception into nature? *Think: has not the continual implementation of linear modeling led to a linearised and uniforming worldview? Yes!*

The clockwork worldview, one that was running down toward greater entropic disorder, was in direct conflict with the biological worldview which saw an *irreversible* evolution unfolding toward greater order and complexity. In “Laplacian determinism, there is no difference between the past and the future. Both are implicit ... in Newtonian equations of motions. All processes are strictly *reversible* [emphasis added]” (Capra, 1997, p. 184). In order to remedy the great paradox, Prigogine introduced irreversibility and nonlinearity into open-system thermodynamics—mechanisms that bring *order out of chaos*. “In the deterministic world of Newton there is *no history and no creativity*. In the living world of dissipative *structures* history plays an important role, the future is *uncertain*, and this uncertainty is at the heart of *creativity* [emphases added]” (p. 193). Statistical thermodynamics in *closed* systems tend toward equilibrium. In *open* systems they are stable far-from-equilibrium! As Capra noted, amplifying (“runaway”) feedback loops, detrimental to closed cybernetic models, are a source of higher-ordered complexity in dissipative

structures. The mathematical geometry supporting these findings is fractals.²²³

Chaos and order. According to the second law of thermodynamics, “there is a trend in physical phenomena from order to disorder. Any isolated, or ‘closed’ physical system will proceed spontaneously in the direction of ever-increasing disorder” (Capra, 1997, 47).

Entropy is a measure of disorder in conjunction with irreversibility generally conceptualised under closed systems. In open systems far-from-equilibrium the situation is reversed. From iterative (*self-amplifying*) instabilities *emerge new structures* of increasing complexity at successive bifurcation points. Deterministic chaos is scientifically *ordered*, not *random*. For Prigogine (1997), complexity implies that time symmetry has broken so that these processes are irreversible at bifurcated points: “by incorporating irreversibility they [the laws of dynamics²²⁴] express not certitudes but possibilities” (p. 126). In summary,

the radical nature of Prigone’s vision is apparent from the fact that these fundamental ideas were rarely addressed in traditional science and were often given negative connotations. This is evident in the very language used to express them.

Nonequilibrium, nonlinearity, instability, indeterminacy, and so on, are all negative formulations. (Capra, 1997, p. 192)

In complex systems (Model II) we no longer have time-reversible trajectories with scientific foresight; rather, irreversibility and probabilistic ensembles alongside scientific hindsight by way of *becoming* or *evolutionism*. As Prigogine (1997) stated, “Classical mechanics is the science upon which our *belief* [emphasis added] in a deterministic, time-reversible description of nature is based” (p. 107). These new laws of nature offer poetic advice as well: “Figurative speaking, matter at equilibrium, with no arrow of time, is ‘blind,’ but with the arrow of time, it begins to ‘see.’ ... *We are actually the children of the arrow of time, of evolution, not its progenitors* [emphasis added]” (p. 3). In the social domain, as an extension to *classroom management* in education, we have the familiar notion

of *proximity control* where a teacher walks around in a strategic manner to maintain ‘order’ in a classroom where students are engaging in dialogue not pertaining to the lesson at hand.

A story of dandelions. In order to tie these ideas together I share this insight: When I was young I picked dandelions from our European front lawn. Picking dandelions was a chore that I utilised for mindfulness meditations. The result showed a beautiful lawn absent dandelions, pigweed, and plantains. One could call it ordered as opposed to chaotic. The fact that it was perceived to be beautiful resulted in continual weeding. These so-called weeds are actually pioneer plants (perceptual change). Ecosystemically, when I took away the dandelion source, the soil had to simply grow more dandelions. My attempt to maintain order required constant attention to pulling out newly emerged dandelions. The linear and uniform management was simply causing further non-linear and systemic responses. On a macro-scale, the continual deforestation may lead to complete desertification, for instance.

If a meadow is overgrazed you often see indigenous (leguminous) *acacias* that counteract nitrogen depletion. Eventually a meadow turns to thickets and eventually a full grown forest depending on the ecological niche. To the permaculturist it is imperative to understand these relationships so that we work with (or accelerate) Nature as opposed to continually suppressing her. The time it takes for nature to grow from a meadow to a rich forest may take *centuries*, but a permaculturist could follow the same patterns and realise a food forest within a *decade* (Mollison, 1988). When seen through permaculture eyes the lawn filled with chaotic weeds was simply surface appearances. *Below the chaos was order.* Once I perceived that I touched upon a beauty far deeper than my original linear aesthetic.²²⁵ Hours of time spent pulling weeds were saved enabling my mindfulness practice to focus instead on the order behind chaos: *Nature just as she is.* We could go a step further and harvest a small amount of dandelions for root teas, thereby creating a sustainable balance between humans and their ecosystems.

Driving the mechanisation process. One final point is the ramifications of applying linear, linearised, uniform, or uniforming conceptions to nonlinear phenomena. If we were to take an ounce pond water and place a drop of chemical fertiliser into it, the entire ecosystem will either die outright or exhibit severe systemic failure and response mechanisms. *What can we learn from this example?* It is well known that plants intake certain nutrients and these nutrients have been calculated under a number of atmospheric conditions such as humidity and light, water conditions such as pH and EC, and other details calculated under *laboratory* conditions. These conditions are first and foremost closed; they are chemical, pertain to parts, and reductive *in toto*. If we are to take these truths at the chemical level—ignoring for the moment where the raw material originates and how much oil the manufacturing of the synthetic chemicals depend on (*tunnel vision*)—and apply it to a farm we end up with: *a horticulture*.

In the Green Revolution chemical fertiliser was used to bring a scientific perspective to agriculture and an end to world hunger.²²⁶ However, the application of chemical fertiliser on soil created less fertility the following year which then required greater amounts of fertiliser and greater water to distribute it. The initial increases in crop production and accompanied monetary gain were short term if the same intensity of labour, water, and fertiliser were applied. Due to the nature of specific fertiliser use, polycultures turned into monocultures. Pest and disease flourished requiring disease prevention programs, specifically in the form of pesticides. These pesticides harm both predators and pests, leading toward a mentality of removing all *bugs* indiscriminately. Greater fertiliser use—for those farmers that could expand their land to offset the increase in production cost—led to further soil decay. Finally, use of *labour-saving* machinery for the distribution of seeds, fertiliser, and pesticides led to soil compaction. After decades of petro-chemical usage the soil is, for all intent and purpose, *dead*. After *millennia* of cultivation it can no longer sustain

a single crop without fertiliser.

A reductionist examination of plant nutrition simply cannot take into consideration, at the chemical level, the domain of ecology. These open, nonlinear systems were in systemic decline. With soil no longer effective, *it was time to simply raise the food above the ground into pots and remove soil as an ecological variable in regulating plant growth altogether*. For millennia we *grew* food; within a few decades of the Green Revolution we *manufactured* it. With a heated greenhouse system we could control temperature fluctuations and humidity and with a computer we could automate the entire process. A gastronomical society became an industrialised one, one solely dependent on *oil (tunnel vision)*. A complex, nonlinear web of life now disseminated into a complicated, closed machine, devoid of interrelationships. Horticulture represents *an effective transformation into a closed system*.²²⁷

Can we come to the conclusion that systemic decline came about when we attempted to implement *lower truths* at a higher order of complexity (*expanding cup*) like the drop of fertiliser in pond water? It is clear that *systematic* buttressing (*linear bootstrap process*) of linear systems in order to offset nonlinear *systemic* reactions have effectively linearised an agricultural (*open*) system into a horticulture (*closed*) glasshouse to reach certainty. What permaculture attempts to accomplish derives from the idea that solutions never come at the level of the problem. For Fukuoka (1978) his natural farming was “modest solution to a difficult problem” (p. 82). Attempting to fix pest problems that arise from monoculture agriculture with techniques such as DNA modification and poison(s) only impose greater problems on the system. For Fukuoka, “If farmers would stop using weak, ‘improved’ seed varieties, stop adding too much nitrogen to the soil, and reduce the amount of irrigation water so that strong roots could develop, these diseases would all but disappear” (p. 70).

Uniforming diversity. Apart from implementing certainty at *lower* domains of comprehension (reductive) to *higher* domains, a second consideration is when we develop

uniformity at the *same* domain. By simplifying (read: linearising) the complexity of diversity, we end up with a statistical bell curve as regards a certain *measurable*, thereby *instrumental*, variable. From a quantitative premise we can justify whether or not intervention has proven *statistically significant* or not. We see such patterns especially in terms of diet and pharmaceuticals where *one size fits all*. In an attempt to improve upon such a methodology steps are taken *afterwards* to further minimise nonlinear, malefic effects. Too often these measurable variables are abstracted parts from the whole and only aim to maximise certain components (*gears*) as it relates to an applied field. As regards the field of education, we can easily end up with a mentality to maximise these gears simply because the math shows a significance in a cause-and-effect relationship. A *tunnel vision* (Figure 10) occurs as regards a comprehensive overview of student achievement such as pushing reading further and further back to maximise (the average) reading comprehension at specific age groups. These measurements, furthermore, are completely subjective as one could simply replace *reading comprehension* with *chess skills* or *athleticism* and implement earlier and earlier strategies to maximise the desired result. *In the end, we have a scientifically orchestrated educational system that is completely developed through analysis on abstracted parts. This should come as no surprise when the framework of education is the means to a socio-cultural sanctioned end.*

In our attempt to maximise all these gears—at the expense of the student—one can imagine a many-armed Shiva desperately attempt to hold these linear gears, *sub specie æternitatis*, precariously in place as we have buttressed the linear framework considerably since the inception of public education. We have transformed education into a machine as the school represents a complicated combination of parts. New parts are bootstrapped to control emergent and erratic behaviour to follow a *preordained* curricula—leading down a very narrow path. Indeed, such a *false middle way* is a gross counterfeit to the Eastern doctrine of the Middle Path concerning the whole student: physical, emotional, mental, and spiritual.

Unfortunately, the result of a statistical representation (bell curve) over diversity has established an average curriculum for an average student that does not even exist!!

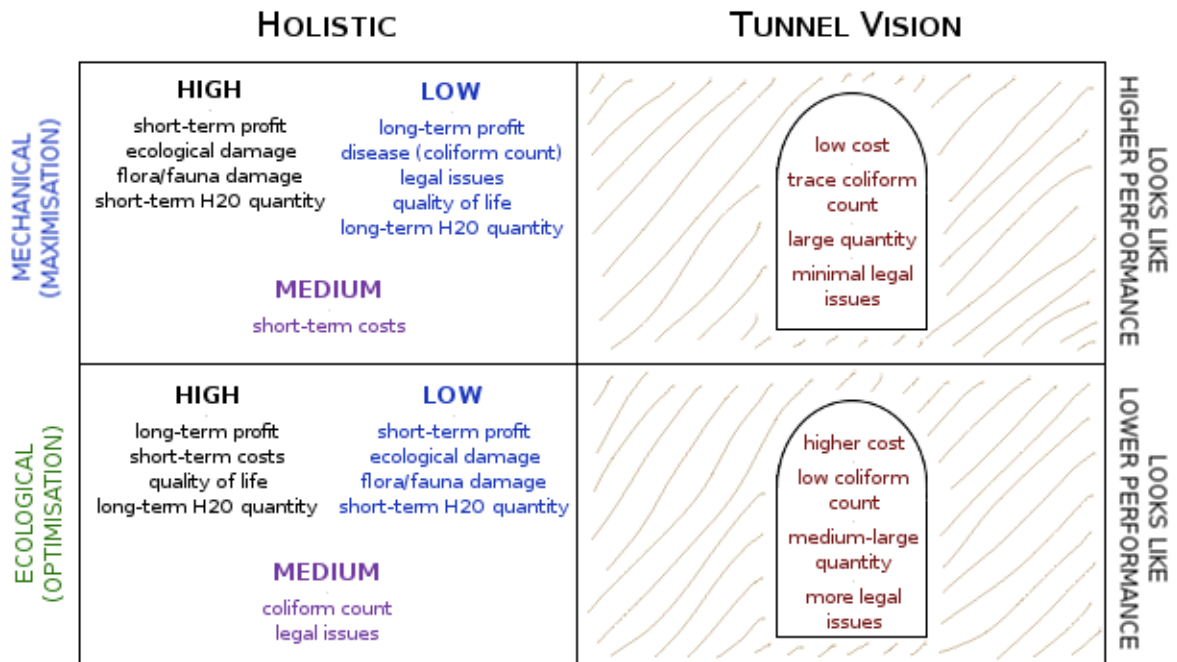


Figure 10. A provisional diagram showcasing the phenomenon of tunnel vision in water. When structures, such as a horticulture or a school (see Figure 27), stand as a closed (read: isolated) system within an open system, the interrelationships and interdependencies are masked in what is known as *tunnel vision*. Tunnel vision occurs when we attempt to *maximise* any part or parts within a whole spectrum of qualitative and quantitative considerations. Equally, the subtle difference between a curriculum that is seen as a *refined system* versus that same system seen as the end process of mechanisation is that the latter view takes tunnel vision into consideration, whereas the former does not. Ecological theory embraces the notion of *optimisation*, a major factor concerning sustainability.

If we keep to the analogy of agriculture in mind (Figure 4), and further understand that humans represent two levels of complexity higher than plants, then by uniforming diversity we create only one way of growing a crop—and at this point in time it matters not whether one speaks of plants or humans.

Today, we have every minute²²⁸ accounted for in terms of *learning*. How mechanical (Figure 11)! Provincial testing only further paralyses creativity and enforces the mechanisation process *by its very existence*. Curricula is reverse-engineered then rebuilt—in

building blocks—toward standardisations *in the same way the existence of the tractor requires the linearity of orchards*. What is important to understand is that in permaculture, *no use of chemical truths are used at all*.²²⁹ There are no *cemented* greenhouse systems in an open environment, no chemical fertiliser to use, and no maximising light, humidity, or irrigation in a centralised fashion which will lead to maximising one (or a few) variable(s) neglecting the rest.²³⁰ There is a limited amount of ways to operate a greenhouse but in an open field there exists an indefinite amount of creative possibilities to choose how to arrange a *systemic* functioning food forest or garden. However, as soon as we implement a uniform framework we then build up *systematically*; each fixed gear isolated from the rest of a system becomes an impetus for the next gear to become fixed; a lack of creativity (read: monoculture) ensues. The very existence of the extracted part(s) will offset the environment in such a way as to self-perpetuate the need for more dependencies (and thus more control) which succumbs to greater mechanisation. In agriculture, what drives the mechanisation process is the initial (and continued) implementation of a lower order of complexity; what drives the mechanisation process in education is the implementation of a uniform curriculum. And once this curriculum is set, it co-evolves with further scientific analysis toward a complicated certainty. *Uniformity drives the mechanisation process until uniformity is finally reached*.

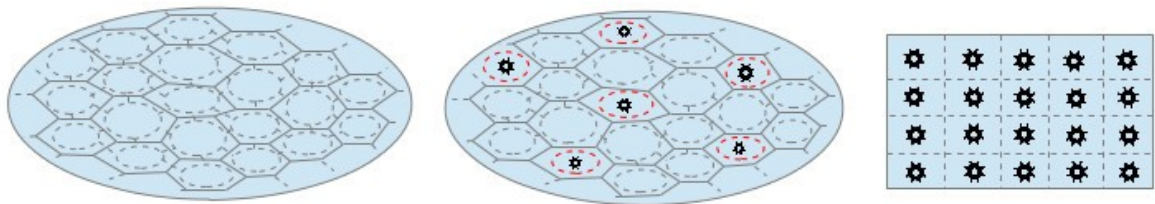


Figure 11. Mechanisation from an open, complex system to a closed, complicated one. Apart from horticulture, another good analogy can be made to walking. Our feet have co-evolved to meet a curvy terrain, not a flat one. Once we incorporated cars we needed to develop concrete. Once we had roads we needed to segment a safe place to walk. Because we have sidewalks, we needed proper shoes that allowed our feet to walk on a flat surface. Continued use of shoes—among other variables—often leads to a condition called flat feet or fallen

arches. The solution is generally to use foot orthotics to artificially create the arch. But the continued use of orthotics only leads further to muscle atrophy in the foot, so now we become *dependent* upon them. To transcend these problems one can simply walk barefooted (assuming the ability outside a city). *I have reversed my own fallen arches in this way.*

Uniformity misplaces permanence in transient nature (*metaphysis-in-physis*). We are always trying to cease Nature's flow and control it. We are no longer working with nature, but against her. Yet, is not the Laplacian Demon very much a part of the modern mentality? Are not the many formulations that exhibit uniformity evidence of a mechanical process at work toward certainty and perfection? Does not the very construction of education (and horticulture) presuppose a building block mentality inherent in linearity and reductionism *through* education? *From a Model I (cup) perspective, we have perfected the (educational or horticultural) system with only details remaining. However, in a Model II (plate) perspective, we have instead mechanised the system into (closed) certainty!!²³¹*

The False Middle Way

Whether or not the school is conceptualised as a closed system does not take away from the fact that it exists within an open, biospheric (Gaian) system. Specifically, it is situated within the socio-cultural, socio-political, and socio-economic niche it resides (and those are only the *human* elements). Rather than approach problems with *systemic* solutions, areas of concern are isolated and corrected using *systematic* approaches (see Figure 6).

When we recognise the curriculum as the end result of the process of mechanisation masked as a finely-tuned (read: complicated) structure, these solutions further solidify or deepen a linear framework (read: organisation of isolated gears) to offset physical, emotional, and psychological issues. Along with the conveyor-belt mentality, these gears have created what I call the *false middle-way* where students are expected to be pushed along a curriculum where any deviance requires expedient rectification. Rather than develop education alongside *positive*²³² psychological concerns that bring forth a world of inquiry, communal,

and agentic embrace (Wilber, 2000b), psychological and *e*-motive factors are *kept-in-line* such that the acquisition of knowledge may commence.²³³ These self-perpetuating mechanical constructs and processes can only satisfy a parts-based approach *geared* toward supplementing psychological issues into curriculum. *One such strategy is Western mindfulness. Foreshadowing Model III, “the path of contemplative inquiry in the four close applications of [Eastern] mindfulness is rigorous and demanding because the Buddha’s goal is far greater than the simple alleviation of stress” (Wallace, 2011, p. 65).*

Mindfulness as a Gear in Westernised Schooling in Model I

Mindfulness *is* a missing dimension in education, however, how we then interpret this in another matter. In a curriculum that accounts for every 15 minutes of every lesson of every day of every week of every month to culminate in the graduation of criterion for the year, mindfulness is a supplementary role (read: *gear*) amidst the schooling directive. In this regard, mindfulness aims for the psychological well-being of the student (and teacher), thereby linearising the nonlinear phenomena of psychological distress *in a framework that inevitably produces the latter*. In other words, mindfulness plays a *systematic* as opposed to a *systemic* consideration in educational reform.

The Mechanical, Parts-Based First Model

Our current model of education is conceptualised as independent parts. Herein lies the assumption that the school is independent from the very environment it is placed in. It is *schooling* as opposed to *education*. The school represents a *learning centre* for the acquisition of information regarding Nature whose lessons, offered (or imposed) through curriculum, become decontextualised and often end up as *scientific mythologies*. The school offers a linear pathway toward a *predetermined* goal of graduating from a curriculum that itself is the product of mechanisation end. Finally, the school represent the linear and uniform patterns of atomism, as each student represents a *unit* in the most quantitative order

of reality. Education represents the process of *being-in-the-world* (Heideggerian term). It recognizes growth is organic and nonlinear (read: recursive, never divorced from context) and that the world is not independently situated *out there* as student brings forth *a* world that continually co-evolves within their *phenomenological narrative* and enactive participation.

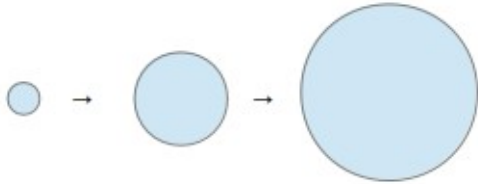


Figure 12. The first model conceptualising *schooling*. The left circle represents the student, the middle circle represents the school, and the right circle represents the Earth. In other words, the student goes to an independent school to study an independent world. The participatory en-action of each circle is clouded.

Model II: Ecological (W)holism and Complexification in Educational Reform

In recapitulating, the Cartesian-Newtonian paradigm (of rationality) was so successful in mechanical problematising that it was generally *believed* that all problems would generally yield to mechanical solutions²³⁴ (Capra, 1997). Our mechanisation (read: quantification) of education is a result of our past and in order to reform education “we must not underestimate the size of this task. It is not always obvious *how deeply our current ways of thinking*, notable about science and philosophy, *are still shaped by the assumptions of the rationalists* [emphases added]” (Toulmin, 1990, p. 45)!! For instance, “in the computer model of cognition, knowledge is seen as context and value *free*, based on *abstract* data. But all meaningful knowledge is *contextual* knowledge, and most of it is tacit and *experiential*²³⁵ [emphases added]” (Capra, 1997, p. 70).

The second model, or first alternative (*plate*), is situated (contextually) around interobjective (naturalism, ecology, and informational) and intersubjective (context, network-logic) philosophies of post-Modernity. Ecological (w)holism, as a scientific, philosophical, and social (justice) movement, attempts to overcome an emphasis placed on

parts; instead, these movements emphasise *networking* and *whole* systems (Capra, 1997). Since “systems thinking is ‘contextual’ thinking; and since explaining things in terms of their context means explaining them in terms of their environment, we can also say that all systems thinking is *environmental thinking* [emphasis added]” (Capra, 1997, p. 37).

Consistent across environmental and ecofeminist attitudes is the emphasise to re-enchant ourselves with the feminine principle (*yin*). Shiva (1989)—who argued that modern development is *maldevelopment*—stated that “activity,²³⁶ productivity, creativity which were associated with the feminine principle are expropriated as qualities of nature and women, and transformed into the exclusive qualities of man. Nature and woman are turned into passive object” (p. 6). In a similar vein is the *subjugated subjects (biopower)* of Michel Foucault (1926–1984) and the *dehumanising humanism* of Jürgen Habermas (1929–present). Both saw the collapse of *dialogical* subjects into *monological* objects as a *pseudo-science* based on “self-aggrandizing *power*” (Wilber, 2000b, p. 464). Like Shiva (1989), my interpretation does not see the world as *too masculine (yang)* which one would expect from a critical or feminist angle; rather, the problem lies more-so that *the male-oriented view has usurped the feminine principle*. The difference is subtle; rather than a worldview that is *too yang*, we have a worldview that is *too yang-in-yin* which coincides with an absolutism *in naturalism* or *metaphysis in physis*. Consequently, the Westernised worldview is *too yin!!*

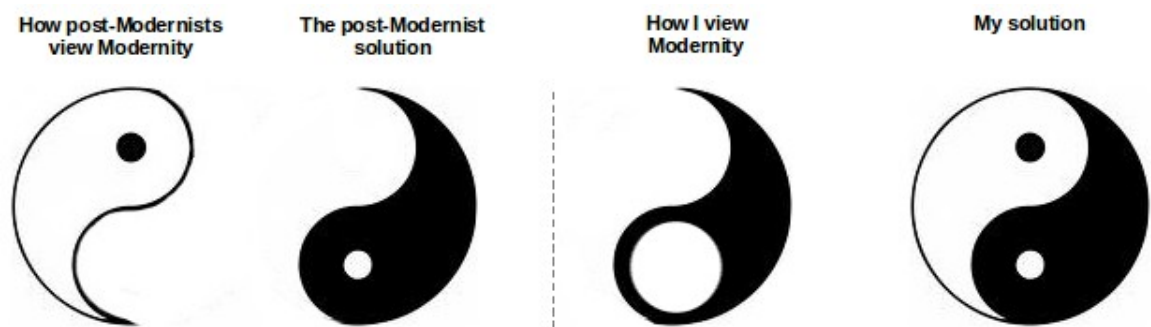


Figure 13. The subtlety in conceptualising unbalanced worldviews between post-Modernists and myself in Daoist imagery. The post-Modern view *en-visions* Modernity as *too yang* whereas I see it as *too yang-in-yin*. I naturally view post-Modernity’s solution as unbalanced

but clearly indicate it has regained balance within the yin aspect itself; unfortunately, the triumphant return of the feminine principle—at least academically—has been to the detriment and omission of its yang or masculine counterpart. In a theologically or metaphysical (Far-Eastern) context, we have left Heaven (*yang*) for Earth (*yin*). The post-Modern worldview naturally sees its rectification as balanced (they see my solution as their own).

Whereas the industrial age saw the world metaphorically as a *machine* devoid of life and “based on the assumption of separability and manipulability” (Shiva, 1989, p. 22), the information age *recovers* the world as a living organism (Capra, 1997; Shiva, 1989). The systems view understands that global properties of the organism do not necessarily exist within the parts, but emerge from their interactions and interrelationships. Model I stands as testament that rebuilding these broken parts back up to the whole yields a complicated machine as opposed to a complex living or non-living system. In regard to education at the biological level (a higher domain of complexity), for instance, “personal learning is not about acquisition, processing, or storing, but about emergent structuring” (Davis, 2004, p. 165). At the psychological level, mindless learning is generally *disembodied* learning in schooling (Langer, 1998) whereas ecological and complexity discourses emphasise an *embodied mind*. An identification with the body is a recovery of a humanistic and humanitarian (16th century) science and perspective. Finally, ecological sensitivity “is about *lateral* or *outward* relationships as opposed to forward or *upward* grasping [emphases added]” (p. 160). Therefore, horizontality²³⁷ and naturalism aim to *bridge dualities*²³⁸ through intersubjective and interobjective sensibilities (Davis, 2004). Similarly, naturalism (*physis*) etymologically implies *becoming*, which we see ubiquitously in theory: from the *time-independent* Schrödinger equation, $E\Psi(\mathbf{r}) = \hat{H}\Psi(\mathbf{r})$ to *time-irreversible* probability densities $\rho(\mathbf{r},t)$, Tarski and Godel’s incompleteness theorems, chaos, complexity, and so on. These all have an element of *indeterminacy* and *unpredictability*, *incompleteness* or *uncertainty*, and wholeness or partialness *at the*

fundamental level of math, which (theoretically) removes the *yang-in-yin* imbalance from four centuries of reductionism; but they are also the antithesis to metaphysical notions (*unchanging*) so that these considerations of pure becoming (*too much yin*) are strictly Westernised as an absence of Being can never satisfy any primordial tradition (East or West) as regards their sacred science.

Ecological theory, therefore, focuses on the interrelationships between all things.²³⁹ Yet under Model I, how many people consciously breathe in knowing the tree breathes out? Rather than simply *inform* (Model I), environmental education brings the set of interrelationship between student and nature into conscious thought and *mindful participation* (Model II). Instead, we see in trees *lifeless matter* which can simply be used for wood²⁴⁰ (Shiva, 1997). Rather than build systems that are self-sustaining, we tax all systems in an effort toward maximisation, efficient output, control, and so on.²⁴¹ Solutions to ecological problems are often in the form of *environmental reform* (Model I). Yet in the deep ecological movement, “the role of humanity is not understood in terms of [systematic] stewardship, but of [systemic] *mindfulness* and *ethical action*. A tenet of deep ecology is that humanity has the right to draw on planetary resources only to satisfy vital needs [emphases added]” (Davis, 2004, p. 156). Furthermore, ecological literacy²⁴² demands contextual sensitivity (Capra, 2007; Stone & Barlow, 2005); the “neglect is manifest, for example, in scientific technologies that are deployed in ignorance of their environmental consequences ... and in educational systems structured around age-appropriate (versus situation- or person-appropriate) standardized curricula” (Davis, 2004, p. 161).

The Ecological (W)holistic Second Model

The framework of Model II is a *living systems analysis*. In particular, the conceptualisation of *nested systems*. Consequently, anyone talking about *wholistic*

education are often referring to the *whole child*. But what does *(w)holism* really mean? It means *whole!* Our conceptualisations cannot disregard the Earth;²⁴³ we must take into account the *ecological equation of education*.²⁴⁴ Not only human (*social*), but natural laws too,²⁴⁵ so that our new model of education (*plate*) takes on another role entirely. The framework that built Model I utilised *mechanical principles* and simply placed rationality at the forefront, placating all other issues thereafter. The second model, on the other hand, uses ecological principles *in toto*. *Therefore, we cannot simply teach ecology (and complexity), but design the school with these principles in mind. This step is crucial in differentiating Model II from Model I.*

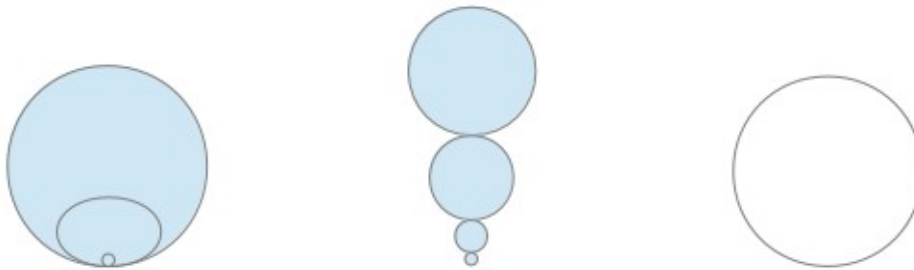
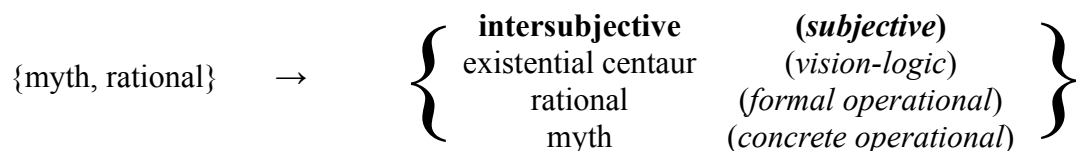


Figure 14. The second model conceptualising education. The left figure represents the *school as a subsystem of Gaia* (with a student in the school) in *nested form*. The middle figure shows the relationship between humans, the school, Gaia, and the cosmos in *expanded form* (not to scale). The right figure showcases the curriculum (to scale). Model II represents the systems perspective as opposed to the reductionist perspective (Model I). In Model II, we can see that the student does not fail school, the school fails the student. From a higher perspective (*plate*), if the school is the place we go to to learn about nature, *we can see how ecologically corrupt our school system is as it relates to the rest of Gaia. This perspective begets a nested relationship lost in Model I (cup).*

Many theorists think that complexity and ecological designs are to be implemented within the current framework itself (Davis & Sumara, 2006). Put another way, the curriculum is not necessarily problematic, it simply needs to have a healthy dose of complexity injected into it. That is like saying we need to apply permaculture principles within the rigidity of a greenhouse!! Only when we throw away the structure of curriculum (or greenhouse or shoes) can we then proceed to build in an ecologically-adept fashion that

recognises ecological succession, growth cycles, and so on, as part of our design.²⁴⁶ The ecological curriculum (Model II) acts as a foundation for learning understood in the context of Fukuoka’s grains: healthy yields with uncertain ecological balances. *Likewise, and similar to the food (permaculture) forest plot that can take on an indefinite variation, the open circle represents a well of potentiality, not a mechanical, maximised, and predetermined²⁴⁷ curriculum.*

Curriculum revisited. From a complexivist angle, modern curriculum—as a possibility to predetermine what is to be learned—is challenged (Davis, 1996); clearly, “human learning has proven itself to be tremendously adept (but wildly unpredictable) at adapting to the contingencies of existence” (p. 90); modern curriculum makers “have disregarded these commonplace understandings, electing to work from the *maxim* [read: dogma] that what is to be learned *can be controlled* [read: industrial paradigm] through careful articulation [emphases added]” (p. 90). Ecologically, curriculum is “not be conceived of in terms of distinct (but coherent) knowledge bits, *but as having to do with the existential qualities of life in schools* [emphasis added]” (p. 90). Thus, the heart of curriculum shifts from an instrumental *focus* to a *non-instrumental locus*—that is, past the *rational agent* to the *existential centaur* in a hierarchical development scheme shown by the cup → plate:



The etymology of *curriculum* (“course”) derives from the Latin *currō* (present active) or *currere* (present infinitive) which means *to run*. As Davis (2004) cleverly articulates, curriculum is *the running of the course* rather than the *course to be run*; impersonal goals that re-enforce *conventions* is in stark contrast to the original intent of curriculum as a “meaning-making process [and in] rendering experience meaningful... [F]ar

from popular conceptions—[curriculum] is conceived as the interpretation of lived experience, and is thus valued for its transformative rather than its transmissive potential” (p. 90). The rhetoric of Davis is in terms of Model II and not Model III as *transmission* is not antagonistic—and often a precursor to—*transformation* as regards spiritual development.²⁴⁸

What is considered good in Model I is considered bad in Model II. Let us investigate the notion that educational reform begets further reform (Krishnamurti, 1981) as it attempts to adjust to various socio-cultural and biospheric concerns or pressures (*ecological equation of education*). In Model I, when a problem arises—often seen as disjunct from the school—the school (administration, government, theorists, and so on) pursues remediation (in theory). Various, overarching educational trends (read: solutions) include critical theory, *political identity* (in the form of emancipation from power systems and *situated privilege*), agency, and complexity and ecology theory (my focus) to offset *intrapersonal* and *interpersonal* crises for the student and teacher. Social remediations include reform (obviously), student success, guidance, career counseling, and various *e-learning* and tutoring programs abroad. The premise is to remedy the Earth (or anything outside school walls) by remedying education, so that improving the school will improve detrimental crises and conditions. These reform measures seem justified, however, as we have seen in Figure 11, the school represents the end product(ion) of a mechanisation process. These forms of remediation are *linear bootstrap processes* aimed to maintain the internal integrity of the mechanical system. By their existence (as a byproduct, no less) they self-perpetuate and become *necessary*—in many ways continue the mechanisation further.²⁴⁹ When we see various learning centres (such as *Virtual Highschool* and *Oxford Learning Centres*) crop up, they are justified as supplementing (read: necessary) for the curriculum. However, in a Model II view, *are these not examples of something amiss in the curriculum itself? Is it not a pristine example of the systematic mechanisation process—much like urban*

sprawl—at work? Systemically, would not a genuine curriculum in its true (etymological) sense imply that none of these necessities would emerge?

Systematic solutions continue to isolate and remediate; in curriculum, a demand for more (or less) at earlier and earlier stages of development (perhaps to fit more and more curriculum demands later on) is one tactic (Model I). The school (and curriculum), therefore, are never critiqued—*nor can they ever be critiqued under Model I*. By continually making the school more mechanical through systematic rectifications, we unknowingly spawn greater and greater systemic crises—which then require more rectification, *ad indefinitum*. In other words, the school acts as the *generator* for the various crises.²⁵⁰ *So by improving the school—one based on mechanical beliefs—we are not necessarily improving the Earth, but contributing to its decline! A perspective gleaned (only) from a complexivist and ecological angle situated at Model II: a critique of the framework of schooling!*

So many of the ideas circulating (widely) today—such as teaching only facts in schooling, making testing more rigorous, increasing standardisations, developing rational denizens for a technocratic culture—are so *old* that they stem from the very basis of modern education! The *real* problem is that these ideas are contrived within an expanding cup and point to a mythic culture that is to blame; and in a *cup* {myth, rational} one is to expect as much. In a greater *plate* {myth, rational, centaur, ...}, *rationality as the God of Reason no longer sits on a mighty throne!*²⁵¹

Mindfulness as an inter-connected component of education in Model II. To the extent that such a curriculum may be conceptualised is beyond the scope of the paper—perhaps it is beyond conceptualisation! A chief question remains though: how do we develop Western education to develop a systems perspective of life? The notion that a Westernised education in the socio-cultural context of Modernity (and early post-Modernity) *reflects the mind and body dissociation as a historical process at the societal scale interpenetrating the*

personal scale cannot be taken too lightly. Dr. Chunlei Lu sees a lack of mindfulness as a major cause of mindbody dissociation in Westernised culture (and schooling) and stated that our mind is in our body and our body is in our mind (personal communication, November 12, 2012). In brief, mindfulness play a crucial role in *linking* the mind and body together to create a mindful, embodied experience as opposed to a mindless, disembodied dissociation. Mark Johnson (2008) stated that the *illusion* of a mind and body duality derives from our lived experience that re-enforces such an (inescapable) dualistic view. Ecologically, we are participants within Gaia, and schooling reflects that participatory nature both in mind *and* body, agency *and* communion. Breathing and mindfulness exercises become excellent tools for students to develop self-understanding and awareness. Unlike Model I, these factors are *not* added onto preexisting curricula (*false middle way*); instead, such factors—and by no means an exhaustive list—act as the foundation for curriculum to arise. Furthermore, (some) ecological and complexity discourses aim to overcome the prejudice that consciousness is an epiphenomenon (or without existence at all). According to Guénon (1932/2004), our phenomenal self-consciousness (limited to the psychological domain²⁵²) is neither extended nor situated in space and constitutes a principal characteristic (and *raison d'être*) of our individual state. In a shared space (read: classroom) there should be an emphasis on cultivating sincerity, honesty, open-mindedness, responsibility, and recognising interrelationships—concepts that must be *meditated* upon, as epistemic knowledge is insufficient in creating *meaning* and *connections*.

So picture a class where each student has a daily affirmation to start their day; a Western *and* Eastern phrase to reflect upon; a chance to exercise, stretch, breathe, and live so that they can grow into their own curriculum.²⁵³ Energetically, students can practice numerous exercises, such as *Qigong* (Lu, 2011a, 2011b). I take a lot of my inspiration from Krishnamurti too, who would connect many factors that are interdependent for education

such as fear, authority, intelligence, understanding, freedom, love, meditation, solitude, and the revolution of the mind. Hardly any of these are present in an education based on the transference of information; if they are, they are not primary considerations, but secondary *annexations*. In shifting from Model I to Model II, the subtlety is situating mindfulness *first* as opposed to *last* in pedagogical considerations which *will negate all mechanical and linear-driven didactic formulations of curricula*, lest we collapse Model II into Model I. Krishnamurti also differentiated between isolation and solitude, that for the total development of the human being,

solitude as a means of cultivating *sensitivity* becomes a necessity. One has to know what it is to be *alone*, what it is to *meditate*, what it is to *die*;²⁵⁴ and the implications of solitude, of meditation, of death, can be known only by seeking them out. These implications cannot be taught, they must be *learnt*. One can indicate, but learning by what is indicated is not the experiencing of solitude or meditation. To experience what is solitude and what is meditation, one must be in a state of inquiry; only a mind that is in a state of inquiry is capable of learning²⁵⁵ [emphases added]. (1963/2005, p. 9)

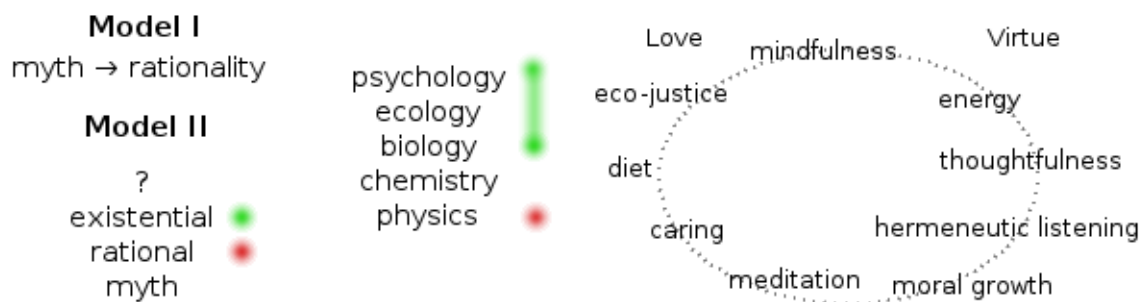


Figure 15. Ecological (interobjective) supports for a Model II curricula. The red dot is where we are conceptualising education today, the green dot(s) are the *discontinuous jump* we need to make to arrive at Model II. One popular analogy for the development of the *whole child* is focusing on the roots of the tree as opposed to the tree itself. A tree may either bear fruit in seven years if planted, or in three years after working with various cover crops to amend the soil for three years prior (Phillips, 2005). My intention is not to show that fruit bears a year earlier, but that the strength of the tree comes from a healthy environment—especially an environment you *cannot see*. Given thirteen years of elementary and secondary schooling,

must we continue a yearly approach reverse-engineered from grade 12 curriculum? Perhaps students will be able to complete grade 12 mathematics and reading comprehension if we start much later in education by working on other difficulties or areas of a child first?

In order to be healthy stewards of the Earth we must be healthy stewards of our bodies (Tiller, 1997, 2007). Jon Kabat-Zinn (2005) has clinically shown mindfulness to overcome depression and stress *which is the basis of the majority (90%) of psycho-physiological diseases* (Figure 6). Thus, mindfulness meditation represents the invisible roots for the irreducible heterogeneity of the body-mind complex of each student. Other considerations include imagination, creativity, exercise, memorisation, virtue, nutrition, morality, and so on: all factors lost in the tunnel vision under Model I. In an enacted and *process-oriented* model, we can *image-in* an education built to resonate with one's psycho-somatic needs.²⁵⁶ Western mindfulness places emphasis on *process* (and not *product*) by dwelling on the *present* moment and not in *past* memories or *future* anticipations. Paying attention, for instance, is seen as a struggle since attentive behaviour is often understood as concentration, an attempt to fixate on the lesson. Mindfulness allows one to pay attention effortlessly by simply being present. As is well known, mindfulness reduces indicators of stress, especially increased blood pressure from narrowed arteries. Counter-intuitive, however, is that stress, for those that believe stress is *not* poor for their health, will also *not* show increased chances of prognostic diseases! Also, counter-intuitive is that stress produces *oxytocin* ("cuddle hormone") which, when linked with *compassion in social environments*, repairs any damage done to the heart from stress (Dr. Kelly McGonigal, personal communication, March 31, 2012)!! I am reminded of the Daoist principle: *the solution is in the problem* (*Dào Dé Jīng*, 2)!

Further ecological patterns in (human) nature that concern educational reform.

There are three more patterns I have witnessed that will be useful for the reader to

understand the following sections. Both derive from my cup and plate model.²⁵⁷ These patterns allowed me to acquiesce discernment from a lot of our (*false*²⁵⁸) theological and metaphysical inheritance—or lack thereof.

Not one, but two. The power of symbolism is that it both *reveals* and *conceals*; to Plato, there is a truth higher than sense reality as showcased by his allegorical symbolism of fire and shadows; spiritual systems would all agree that we must transcend our human condition to know Spirit Transcendent before we can know Spirit Immanent. However, what happens when both our social (interobjective) sphere and cultural (intersubjective) sphere collapse to quantity, materiality, and empirical-sensory reality—with everything beyond expressly denied? For instance, on the surface both atheists and *yogis* seem to be held to no religious form;²⁵⁹ yet, those “among the moderns who consider themselves to be outside all religion *are at the extreme opposite point* from those who, *having penetrated to the principal unity* of all the traditions are no longer tied to any particular traditional form [emphases added]” (Guénon, 1946/2004a pp. 62-63)!!

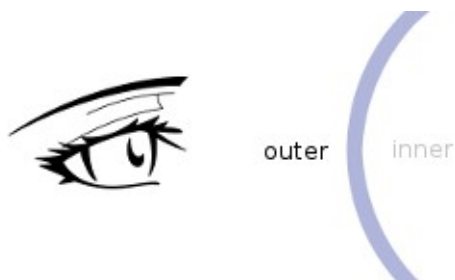


Figure 16. Mistaking the Platonic shadows as reality. In all aspects of this relationship, the inner is forgotten and subsequently dismissed while the outer is seen as comprising ‘all that is.’ The outer not only takes on both roles (theoretically) but entire social systems are built on its supposed superiority, simply because all that exists is {outer} instead of {inner, outer}. Worse, what is outer derives from what is inner, so that all that is superior is diminished to its inferior applications and extrapolated past its domain. And, by their existence, the inferior conceptions fictitiously denude the qualities of the inner. See Table 4 in Appendix A.

Mechanical processes, which concern industry (and an education supporting it), are

not without ramification either. Metaphysically, concepts can symbolise inferior or superior modes via *analogical transposition*, a quantitative (*outer*) and qualitative (*inner*) point-of-view respectively. Take *anonymity*:

Now, anonymity itself can be characteristic both of the “infra-human” and of the “supra-human”: the first case is that of modern anonymity, the anonymity of the crowd or the “masses” as they are called today (and this use of the highly quantitative word “mass” is very significant), and the second case is that of traditional anonymity in its manifold applications, including its application to works of art.²⁶⁰ (Guénon, 1945/2004, p. 63)

Coomarswamy (2007) stated that “the ‘Demiurge’ (*dēmiourgos*) and ‘technician’ (*technitnēs*) are the ordinary Greek words for ‘artist’ (*artifex*)” (p. 4) and Plato makes “a distinction between creation (*dēmiourgia*) and mere labor²⁶¹ (*cheiourgia*), art (*technē*) and artless industry (*atechnos tribē*)” (p. 4). As Coomaraswamy (2007) stated, modern “educational systems are chaotic because we are not agreed for what to educate, if not for self-expression [and sometimes not even that]. But all tradition is agreed as to what kind of models are to be imitated: [divine Nature or *Natura naturans*]”²⁶² (p. 11):

All the arts, without exception, are imitative. [...] The beauty of the work is proportionate to its accuracy (*orthotēs = integritas sive perfectio*), or truth (*alētheia = veritas*). [A] proportion of essential to actual form, paradigm to image. “Imitation” (*mimēsis*) [of] “Mother Nature,” *Natura naturans*, [not] to whatever is presented by our own immediate and natural environment [*Natura naturata*] whether visually or otherwise accessible to observation (*aisthēsis*). (pp. 7-8)

Such an imitation of divine principles is not based on the appearance of things or *copies of copies*, but *as they are*; since eternal models are Beautiful, supersensual, and invisible, art, therefore, “is evidently ‘not by observation’ but in contemplation that they

must be known. Two acts, then, one of contemplation and one of operation [action], are necessary to the production of any work of art” (2007, pp. 12-13). In Plato’s *Laws*, far from abandoning the senses in application of art or otherwise, “learning is accompanied by the pleasure taken in charm (*tes charitos tēn hedone*)” (p. 65). In other words, modern aesthetic art “is in *making aesthetic pleasures, rather than pleasure in the intelligible good, the end of art* [emphasis added]” (p. 65). Coomarswamy connects art with “the contemplative *actus primus* (*theōria*, Skr. *dhī*, *dhyāna*) and operative *actus secundus* (*apergasia*, Skr. *karma*²⁶³) of the Scholastic philosophers” (p. 13). Etymologically, *theory* (*theōria*) is synonymous with *contemplation* (*dhyāna*) whose realities are seen by intellectual intuition (*eye of the soul*). Similar *metaphysis-in-physis* errors include the difference between *stasis* and *fixed*. In the realm of the timeless the unchanging *stasis* is not fixed in the realm of time; and actionless activity (*laziness*) in *physis* is non-action or actionless action in *metaphysis* (Saraswati, 2009a). In the Platonic treatise of *Timæus* (Greek: *Τίμαιος*), it is said that:

Time ... together with the Heaven, ... was made according to the paradigm of the Everlasting (*διδαιώνια*) Nature, to be as much like it as was possible; for while the paradigm “is” for all Eternity (*πάντα αἰῶνα*), the copy, on the other hand “is” for all time (*ἅπαντα χρόνον*) wholly such as to have become, exist, and be about to exist. (pp. 67-68)

The “timeless ‘Nature’ (Plato’s *διδαιώνια φύσις*) [is] distinguished from its temporal manifestations, which is the distinction of the stasis of that which *is* from the motion-and-rest of things that *become*” (p. 65). Stasis cannot be relative rest which depends upon spatiality while the former does not. Manifestation at rest is truly *frozen* in an *unstable equilibrium* (*too much yang-in-yin*). Similarly, Krishnamurti (1981), on education and the significance of life, who spoke against organised religion as *frozen* for over six centuries, asserted that true education and religion are synonymous:

Religion is not a form of conditioning. It is a state of tranquility in which there is reality, God; but that creative state can come into being only when there is *self*-knowledge and freedom. Freedom brings virtue, and without virtue there can be no tranquility. *The still mind is not a conditioned mind*, it is *not* disciplined or trained to be still. *Stillness comes only when the mind understands its own ways*, which are the ways of the *self*. *Organized religion is the frozen thought of man*. [...] *True religious education is to help the child to be intelligently aware, to discern for himself [sic] the temporary and the real*, and to have a disinterested approach to life [emphases added]. (pp. 30-31)

The loss of intellectuality which is synonymous with spirituality “has made possible two errors which, although seemingly opposed, are in reality correlative and complementary: rationalism and sentimentalism” (Guénon, 1962/1995, p. 1). These two are complementary as each are part of the human order of existence. But when spirituality came to be denied or wholly ignored, “as has been the case since Descartes, the logical end was positivism and agnosticism” (p. 1). It was “in the nineteenth century that men began to glory in their ignorance—for to proclaim oneself an agnostic means nothing else—and claimed to deny to others any knowledge to which they had no access themselves; and this marked yet one more stage in the intellectual decline of the West” (p. 45); by its own definition, agnosticism makes “an honourable title for itself out of what is really only the avowal of an incurable ignorance” (Guénon, 1945/2004, p. 103). Where spirituality was still recognised, the subconscious, rather than the superconscious, played the mediating role between truth; yet truth itself, having “been reduced to no more than a simple representation of tangible [sensible] reality, is finally identified by pragmatism with utility, which amounts purely and simply to its suppression” (p. 2) Indeed, what is the importance of truth or intellectuality (*spirituality*) where materiality and sentimentality are the sole aspirations of our age?

Religion is further confused “with a vague religiosity, reducing it to morality” (p. 3), and when spirituality is truly lost, material conceptions take their role, furthering the obscuration; a *de facto* materialism is “still more dangerous than an avowed materialism, precisely because those whom it affects are not even aware of it” (p. 3). A point well made on pedagogy theory concerned with “transformative” education; the etymological meaning of transformation strictly means *passage beyond form*, thus all *transformative* pedagogies are strictly *translational* pedagogies!

Not two, but three. The second pattern derives mainly from vertical polarisations collapsing to horizontal polarisations such that only antagonisms can be realised. In post-Modern critical pedagogy camps we have the familiar agency (*autonomous whole*) versus communion (*participatory part*) debate. In the socio-cultural sphere we have the rational versus emotions conflict. When they are situated on the same level (horizontality) they become *reciprocal* so that the more of one, the less of another, as seen in Figure 17.

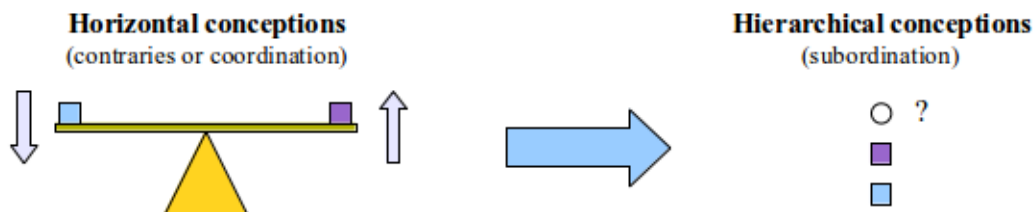


Figure 17. The hierarchisation of horizontal antagonisms.

Let us consider the horizontal polarisation between emotions and rationality. As irreducible contraries, the choice between a cold rationality and a warm sentimentality is often slanted toward a rational preference in scientific matters.²⁶⁴ A higher perspective would entail a complementarity as seen in Daoist imagery where the yin contains the yang and vice versa. Such an order (of truth) would emphasise a *balance* or *co-ordination* between emotions and rationality. A particular example includes activism (emotional) versus

science (rational). As complementaries, activism is better described as acting *with* emotions as opposed to *on* emotions. From a higher perspective still we have sub-ordination where rationality is *above* emotions. Hierarchically, these domains are no longer in conflict so that an increase in rationality does not imply a decrease in emotions. Thus, we can strengthen an *emotional intelligence* with the understanding that the more of *both* intelligences, the better! However, a glaring hole above rationality appears!²⁶⁵ Yet, a rational culture cannot conceive anything beyond rationality in {body, mind} nor even entertain the notion when socially we confuse what is *non-rational* as *irrational* (expanding cup). By applying the former pattern (*not one, but two*) we can remedy the situation:

Westernised: {rational, non-rational} where non-rational = {irrationality (e-motives)}

Traditional: {rational, non-rational} where non-rational = {sub-rationality, supra-rationality}

Similarly, we can apply the same technique to science and religion where the domain of naturalism (*gross*) is distinct from the theosphere (*subtle*) which places religion above science!! Similarly, the domain of esotericism (*causal* and *nondual*) is distinct from and higher than the theosphere (*exoterism*). Thus we regain our full plate from the Platonic West: {matter, body, mind, soul, spirit, Spirit}. Similarly, the radical feminists (*body*) and liberal feminists (*mind*) can find reconciliation within a hierarchic framework (Wilber, 2000b). In that way we can keep the good and remove the bad of each camp which naturally stems from an inadequate framework (producing pathologies) anyhow!

Spiritual degeneration, solidification, and ordinary life. The third pattern²⁶⁶ connects with spiritual degeneration lost in a rational worldview of *time* (*horizontality*). For instance, *katharsis* (Greek: *κάθαρσις*) in no way implies the colloquial—or even some academic usages of—*catharsis* meaning to *blow off steam* or *to release emotions*. Rather, it aims at emotional transcendence, not an emotionless state. In general, what began as

transcending (vertical) metaphors, ideas, and concepts have degenerated into *translating (horizontal)* concepts—often seen as historical (*primitive*) blunders.

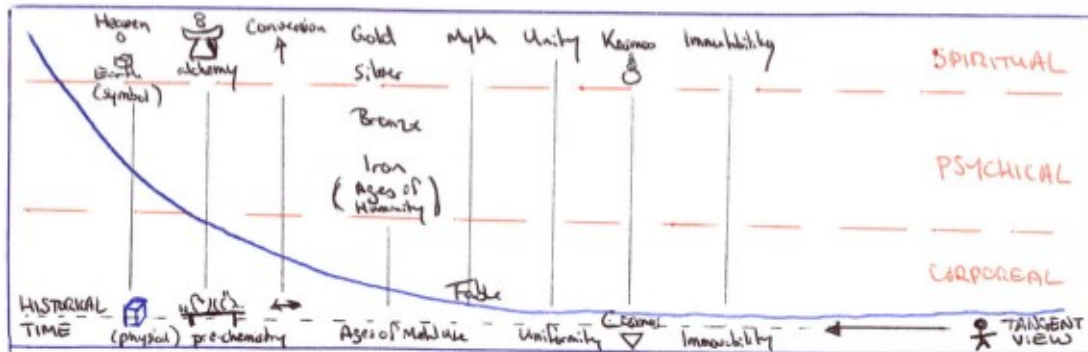


Figure 18. Spiritual degeneration of traditional concepts misrepresented in the tangential view of time. In the picture we have the symbol of Earth as a cube (solidity) replaced by the idea that Earth is actually a cube. Alchemy as a spiritual discipline replaced by the notion as a precursor to chemistry—which is only the most outward form of puffers and charcoal burners—those that attempted to apply spiritual terminologies to material ends. Next we have the idea of conversion as rising above our individuality and today as a horizontal tendency. Similarly, the Human Ages were taken literally to mean the type of metal ore early homo sapien sapiens used, and so on.

Remember when Earth was modeled as a cube? Early exploration was undoubtedly a precarious and perilous affair with an ever-looming danger of falling off the side of the Earth! But perhaps it was not so, and early conceptions of the Earth pertained to geometrical symbolism in relation to Heaven. In Daoism,²⁶⁷ all manifestation occurs between their *vertical* polarisation where the *actionless* quality of the activity of Heaven (*T'ien* or Scholastic *Essence*) meets the passivity of the Earth (*Di* or Scholastic *Universal Substance*) as the *ground* or *support* for manifestation “and consequently also a plane of resistance and halting for the celestial forces and influences acting downwards from above” (Guénon, 1946/1991, p. 24). Heaven, situated above all manifestation (*essential pole*), and represented as “the sphere is intrinsically the primordial form, because it is the least ‘specified’ of all ... containing in a certain sense all other forms, which will emerge from it by means of differentiations” (Guénon, 1945/2004, p. 137). The Heavenly sphere is the *Egg of the World*

(*Brahmānda* where the individual embryo, or *pinda*,²⁶⁸ is the microcosmic transposition) which “represents the ‘global’ integrality, in their first and ‘embryonic’ state, *of all the possibilities that will be developed in the course of a cycle of manifestation* [emphasis added]” (p. 137). The embryonic state, as it relates to the corporeal order, properly belongs “to the domain of subtle manifestation [soul], inasmuch as the latter necessarily precedes gross manifestation and is its immediate principle” (p. 137). On the other hand, the cube was a symbol to represent the solidification of our world and not to represent the world itself!

Earth, symboling the state below manifestation (*substantial pole*), “corresponds to a maximum of ‘specification’, ... [whose] form is thus in a sense above all that of the ‘solid’, and it symbolizes ‘stability’ insofar as this implies the stoppage of all movement” (Guénon, 1945/2004, p. 138). Earth is then pure quantity (*materiality*) or unqualified *immobility* as an inverted reflection to pure quality (*spirituality*) as principial *immutability*. When we add *Jen* (Chinese: 人; *Man, human nature*) to *T’ien* (Chinese: 天²⁶⁹) and *Di* (Chinese: 地) we end up with the Great Triad (▽) of the Far-Eastern Tradition (Guénon, 1946/1991). *Jen*, in {*T’ien, Di, Jen*}, “assumes the guise of Son of Heaven and Earth” (p. 23) where “through his spirit he belongs to the realm of supra-formal manifestation, through his soul to the realm of subtle manifestation, and through his body he belongs to the realm of gross [corporeal] manifestation” (p. 72); on that other hand, *Jen* in {*T’ien, Jen, Di*}, “assumes the role of Mediator between Heaven on the one hand and Earth on the other” (p. 23).

The human (*Jen*) and cosmic orders “are not in reality separated, as they are nowadays all too readily imagined to be; they are on the contrary closely bound together, [the] correspondence is essentially implied in the whole doctrine of [traditional] cycles” (Guénon, 1945/2004, p. 113). In “cyclical development both the cosmic manifestation as a whole and also human mentality, which is of course necessarily included therein, together follow the same descending course ... and thus away from the primal spirituality inherent in

the essential pole of manifestation” (p. 113). The progressive materialisation has as its correlative the illusion of ordinary life, where “modern man has become quite impermeable to any influences other than such as impinge on his senses” (p. 101). In ordinary life, one cannot admit any spiritual influence as one cannot conceive (or perceive) of anything spiritual to begin with; any traditional conceptions—especially from the East—are not only lost to view, but replaced with materialistic conceptions aimed at ‘explaining away’ the various doctrines of our historic primogenitors of speculative inquiry! Truth is then replaced by utility—as science itself couples to industry—to the extent that ‘criterion of truths’ can “be measured by its capacity to produce effects in the sensible order; [science] must for that reason occupy the first rank” (p. 105).

At such a junction, ordinary life is replaced with real life, “the worst of illusions; ... the sensible order, is at the lowest level of all, there being below it only such things as are definitely beneath the level of all manifested existence [*Di*]” (Guénon, 1945/2004, p. 102). All supra-formal manifestation comprising the integral individual is seen as illusionary, much like the Platonic Ideas described above, narrowing the human domain “until it is finally reduced to the corporeal modality alone, everything that belongs to the supra-sensible order is set aside as unreal” (p. 102). Finally, Cartesian mechanism and materialism acquires, in the modern (read: educated) mentality, “a widespread influence [by] the impression, rightly or wrongly, of being endowed with a ‘scientific’ character, ... in which there is always at least an implicit belief in the truth of science, for the hypothetical character of science passes quite unperceived” (p. 105). To Guénon, the Enlightenment, with its rhetoric of *good sense*²⁷⁰ and *progress*, or the modern West insofar as it pertains solely to the corporeal order, are, in many cases, “only beings in whom certain faculties have become atrophied²⁷¹ to the extent of being completely abolished” (p. 106)! But the existence or realisation of materialism “nevertheless represents as it were *an eminently unstable state of*

*equilibrium*²⁷² [emphasis added], ... on which the whole outward organization of the modern world has rested up till now [quantitative civilisation]” (p. 106).

For Guénon, “the actual occurrence of ‘solidification’ is precisely the true reason why modern science ‘succeeds’, certainly not in its theories which ... in any case change all the time, but in its practical applications” (1945/2004, p. 115). Wilber (2000b) would add the synthesizing touch, stating that all metaphysics states have their physical correlates—which is why reductionism is so appealing in the first place since both thoughts (lower mental) and astral experiences (higher emotional or mental) manifest as behaviour (*gross*) and neural activity (*subtle*) respectively. Nonetheless, industry becomes closely coupled with ordinary life, so that a sensible life is ideally lived “henceforward without trouble or unforeseen accidents, just like the movements of a well regulated ‘mechanism’; is not modern man, having ‘mechanized’ the world around him doing his very best to ‘mechanize’ himself” (Guénon, 1945/2004, p. 118)? A point congruent with my mechanisation process and false middle way. Solidification begets the *disqualified unit*; and when the lowest order is then spread (*monologically*) throughout the human order, begets *uniformity*. With complexity in mind, the very existence of materialistic conceptions “can only serve to further reinforce the very ‘solidification’ of the world that in the first place made it possible” (p. 117). As a unit, only the corporeal order exists to the death of spirituality;²⁷³ yet ordinary life remains illusionary as it cannot be severed from the subtler domains of existence without ceasing to exist at all:

The truth is that *the corporeal world cannot be regarded as being a whole sufficient to itself*, nor as being isolated from the totality of universal manifestation: on the contrary, whatever the present state of things may look like as a result of ‘solidification’, *the corporeal world proceeds entirely from the subtle order*, in which it can be said to have its immediate principle, and through that order as intermediary

it is attached successively to formless manifestation and finally to the non-manifested. If that were not so, its existence could be nothing but a pure illusion, a sort of *phantasmagoria* behind which there would be nothing at all, which amounts to saying that it would not really exist in any way. That being the case, there cannot be anything in the corporeal world such that its existence does not depend directly on elements belonging to the subtle order, and beyond them, on some principle that can be called ‘spiritual’, for without the latter no manifestation of any kind is possible, on any level whatsoever [emphases added]. (p. 179)

Ordinary life is really synonymous with rational life; the consequence is a life lived as a mere spectator (*reflection paradigm*) owing to its own restriction of passivity—and not the Zen kind—which creates false monads (*inert matter*) where everything is an impermeable, corporeal unity in isolation; thus no existence, not even their own, can actively intervene in the modification of the (or their own) world, lending the mind to be immutable.²⁷⁴ Such a *lifeless* view is indeed beneath manifestation so “that ‘materialization’ exists as a tendency, but that ‘materiality’, which would be the complete fulfillment of that tendency, is an unrealizable condition” (Guénon, 1945/2004, p. 114). The consequence is reductionism, as “mechanical laws theoretically formulated by modern science are never susceptible of an *exact and rigorous application* to the conditions of *experience* [emphases added]” (p. 114). Connecting with solidification is the two oldest sciences that humankind possess: astrology²⁷⁵ and alchemy. Astrology is transcendental astronomy²⁷⁶ while alchemy is transcendental chemistry (see Figure 20). Seen in another way, chemistry is merely the earthy part of alchemy while astronomy is crystallized astrology (Hall, 2010a). Far from a precursor to chemistry, it stands at the opposite pole, considering “the purely ‘inward’ nature of true alchemy, which is properly of a *psychic* order when taken in its most immediate application, and of a *spiritual* order when transposed into its higher sense” (Guénon,

1946/2004a, p. 259). Alchemy²⁷⁷ “has absolutely nothing to do with the material operations of any ‘chemistry’ in the current sense of this word; almost all modern [and post-Modern] people are strangely mistaken about this” (p. 260). Instead, “the ancient Hermeticists speak of the ‘puffers’ and ‘charcoal burners’, in whom one must recognize the true precursors of present-day chemists, however unflattering this must be to these latter” (p. 260).

As a final example, *conversion (metanoia)* is another degenerate phenomenon. Spiritually, *to convert* was to vertically rise above your state of existence whereas today it implies a change in horizontal orientation, usually of religious affairs. Horizontal conversion connects with solidification, and applies to Model II both as a consideration and as a stepping stone to Model III. As a consideration, Model II deals with *(w)holism* and solidification becomes a factor to understand our niche; as a stepping stone, our corporeality cannot be limited to an isolated whole—nor the entire corporeal order itself! Thus, the reign of quantity or the collapse of quality is an educational quandary of our times.

The Limitations of Model II

One drawback in Model II is that, as *intuitive*²⁷⁸ as it is to many, especially environmental theorists, it showcases a potentiality of not only *a* world becoming of the web-of-life, but *any* world in its indefinite potentialities; therefore, it lacks *quality*—even the world that we live in today may be seen as the greatest world in the history of *terrestrial life* (according to Figure 14). We have arrived at, if not a contradiction, certainly a paradox. How can ecological sensibilities argue for *higher* moral and mindful actions in a framework that lacks *quality (hierarchy)*? Systems²⁷⁹ theorists speak of a *more-than-human* Earth, a *flatland, span-oriented worldview. The higher plate:*

$$\{\text{span}\} \rightarrow \{\text{span, depth}\}$$

changes everything. *We no longer have a crisis in perception but a crisis in consciousness.*²⁸⁰

The Ego (mind) versus the Eco (body) in a winnerless flatland. For a *disqualified*

(*yin*) *cosmos*, all it represents is *body-organism (biosphere)* and *Earth-matter (physiosphere)*. According to Wilber (2000b), systems theory is an *empirical and monological flatland*. The question arises: where is *mind (noosphere²⁸¹)*? Under Model II (connectionism), mind must necessarily be in the body (brain) which is in the Earth (see Figure 14). According to Wilber, the numerous mind-body paradoxes²⁸² *are simply a product of flatland!*²⁸³ Historically, the paradox was *the central problem* of Modernity (and now post-Modernity). *Therefore, I posit the mind-body solution as central to the crisis in education.*

As Wilber (2000b) apprises us, since both camps (Ego-Enlightenment and Eco-Romantic) work from a deficient model (*heterarchical flatland*) it became a *battle of translations*. The more communion you have the less agency you have, and vice versa (*reciprocal contraries*). Liberal feminists and critical pedagogy theorists would advocate for agency, the radical feminists and ecological pedagogy theorists for communion; The point is that all theorists, in a heterarchy, operate on a horizontal model of translations, comprising no *ascesis*, no *integration*, and, therefore, no *Eastern wisdom*. Daoist teachings would integrate (read: transcend) the *yin* and the *yang*—in whatever form they appeared in—into *yin-yang* while Buddhist teachings would integrate them by emphasising the Middle Path. Ignoring the oversimplification, the important point is that *Model III is capable of contextualising Model II in the same way Model II could contextualise Model I. Even more important is that we cannot rely on either Ego (agency) or Eco (communal) camps as both are leading to Gaia's devastation!!*

In summary. the Eco camp represents the body and a reconnection to a dis-enchanted Nature. Johnson (2008) emphasises that our body is not merely a thing (despite appearances) and that we have five (naturalised²⁸⁴) bodies:²⁸⁵ biological (organism), ecological, phenomenological, social, and cultural. The Eco camp argues against the development of propositional truth [UR] arising from the autonomous reflection

on Nature (egoic-rationality); instead, they emphasise communion (as opposed to egoic-agency) and truthfulness [UL] through an embodied expression of Nature. Wholeness and unity (read: unicity) beget harmony as we exist as a strand in the web of life. Therefore, fixing dichotomies is an imperative to unite with Nature and return to the whole empirical-sensory worlds via the empirical-sensory awareness that knows that world. In other words: environmental instinct.

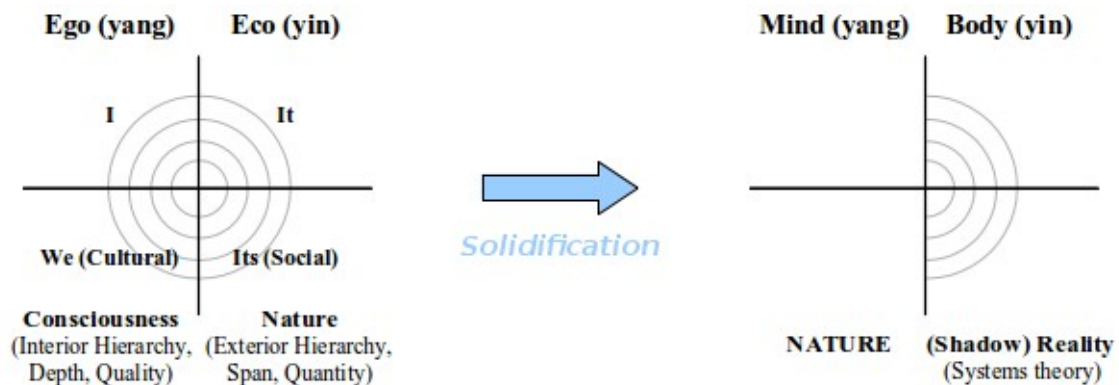


Figure 19. An adaptation of Wilber's integral model (Model III) versus systems theory (Model II). The circles represent *emergent hierarchies* (though not necessarily spatial) where interior hierarchies (L), both intersubjective (We-Social) and subjective (I-personal), manifest in exterior hierarchies (R). For instance, in the lower-left quadrant (LL) the circles represent myth, rational, centaur, and higher supra-rationalities which manifest in the lower-right (LR) quadrant as agrarian, industrial, and information (ages). Vision-logic (UL) is connected with the existential centaur. Both Ego-Enlightenment (*mind, agency*) and Eco-Romantic (*body, communion*) camps theorise solely from the *shadow* reality—despite mind being yang)! The flatland ontology of post-Modern theorists are *too yin* (Model II) while all reductionist theories are simply the upper-right quadrant (UR) where atomism is the lowest quarter-circle.

The Ego camp represents mind and the *rational-ego*²⁸⁶ alongside world-centric perspectivism, tolerance, and universal pluralism. It opposes mythological conceptions²⁸⁷ and stresses agency against communion and autonomy against heteronomy so that moral freedom may prevail over an amoral nature *à la* Immanuel Kant (1724–1804); and neither nature nor Nature provided these values so reason, and *only* reason (*expanding cup*), took the helm as the point of cultural gravity. Reason allowed the mind to *transcend* biospheric

inclinations (but mask the actual transcendence). And with the rational-ego came individualism²⁸⁸ which was the great achievement of Modernity alongside the *differentiation* of the mind from the body. However, since the mind is falsely placed within the brain—or reduced to the neocortex—it merges with systems theory. Wilber (2000b) stated:

Systems theory admirably fights gross reductionism, but is itself the prime example of *subtle*²⁸⁹ *reductionism*, of the “it-ism” that has so defined modernity [and post-Modernity]. . . . That these are often holistic and *systems-oriented* approaches is no solace at all: that’s simply subtle reductionism at its worst: *a flatland web of interwoven its* [emphases added]. (pp. 22-23)

Historically, the Modern calamity “was that it reduced all introspective and interpretive knowledge to exterior and empirical flatland: [erasing] the richness of interpretation from the script of the world” (p. 162); post-Modernists, on the other hand, “would go to extraordinary lengths to deny depth [hierarchy] in general” (p. 169). Bearing affinity with *horizontal*ity, flatland is a true *anarchy*²⁹⁰ within the context of *continuous quantity* (gross manifestation) any true *transformation*²⁹¹—which can only be understood vertically by rising above *form* (*rūpa*)—is replaced (and usurped) by *translation*. Thus, *homogenisation*²⁹² spread and universalism (*universal pluralism*) beget atomistic *uniformity*. Similarly, the *paradox* of the Enlightenment paradigm was that “the holism of nature produced the atomism of the self” (p. 441)!! The subject *I* was left disengaged in non-participatory communion by its own self-defining agency. By attempting to preserve its own transcended autonomy the rational-ego *repressed* any connection with the body and discarded any further transcendence toward the soul (and greater autonomy). It became *hyper-agentic* and the very freedom it sought became *unfreedom* by denying anything higher than egoic-rationality. What started out as a differentiation between mind and body turned into *dissociation* rather than *integration* at a higher level. Knowledge became reductive and

monological (scientific materialism of it-language) as opposed to dialogical or translogical. While science is considered *impartial* and context-free it actually is extremely *partial*—if not altogether *inaccurate*. *All genuine inward gaze became a monological retroflection (dehumanising humanism)*.

According to Wilber (2000b), the paradox of the Eco-Romantics, in their attempt at combating isolation and *egoic-uniformity* with *diversity*, slid into *divine egoism!!* It was diversity taken into the extreme, begetting the very isolation they were against. Whereas Modernity slid into sameness at surface values (*too much yang-in-yin*), post-Modernity regained diversity at the loss of the sameness within (*too much yin*). Furthermore, any differentiation was a mistake; rather than transcend to higher integrations it *regressed*—as opposed to *repressed*—to lower stages of pre-conventional nature before the mindbody *split* occurred; Eco camp confuse *differentiation* with *dissociation (pattern one)* and in a heterarchical flatland, pre-conventional nature replaces a post-conventional Spirit. While egoic-rational modes of inquiry threw away the mystic baby with the mythical bathwater, the Eco would simply associate the mythic with the mystic, the *pre-rational* with the *trans-rational*, the subconscious with the superconscious. A union with Spirit was reduced to a union with Nature: the *visible* and *sensible* God.

As Wilber concluded, there exists both pathological heterarchies (relating to *hyper-agency* and *hyper-communion*) and pathological hierarchies (relating to *Eros-Phobos* and *Agape-Thanatos*). Without the vertical dimension, these pathological heterarchies become *attractive solutions* to pathological hierarchies (read: patriarchy, domination, and so on)! Instead of a vertical, ascending, and self-transcending quality of *Eros (Love)* to expand to a higher and wider identity toward Being or Self we get *Phobos* which “alienates the lower, represses the lower—and does so out of *fear*. ... Phobos is Eros without Agape” (p. 350). Rationality is a form of Phobos.²⁹³ On the other hand, *Agape (Love)* is strictly

compassion of the lower structures in *immanence*. Whereas “Phobos is the source of repression and dissociation, *Thanatos* is the source of regression ... attempt[ing] to save the lower by killing the higher” (p. 350). Not self-transcendence, but a self-dissolution; rationality, then, is both *Phobos* and *Thanatos*, cutting itself from supra-rationalities (spiritual) *and* sub-rationalities (emotional). In the yin-yang conception (Model III), “*Eros* or transcendental wisdom ... has to be balanced with [Christic] compassion or *Agape*” (p. 348); and “when *Eros* and *Agape* are not integrated in the individual, then *Eros* appears as *Phobos* and *Agape* appears as *Thanatos*” (p. 349). Education must not only re-connect the mind with the body and transmute *Thanatos* to *Agape* (Model II), but it must also embrace *Eros* (self-transcendence) and aim at the integration of mind and body in the soul (Model III).

The dis-qualified web-of-life and the anti-metaphysical tradition. Eco-spirituality amounts, at best, to a *nature mysticism*,²⁹⁴ defined as “the realization that nature is not Spirit but an expression of Spirit” (Wilber, 2000b, p. 294); but most web-of-life theorists (environmental or theoretical), wish “to equate a *finite* and *temporal nature* with an *infinite* and *eternal Spirit* [emphases added]” (p. 294). Such pseudo-metaphysics is committed by Davis (2004), who stated that “the study of metaphysics, for Aristotle, had to do with the identification of unchanging laws and principles that govern forms and phenomena *that exist in the realm of the physical* [emphasis added]” (p. 16). Elaborating, Davis (2004) wrote that “since Aristotle’s time, metaphysics has been taken up and applied in ways that depart from the original meaning” (p. 16). I can hardly miss pointing out his role in doing so! Many post-Modern theorists like him (and me)—grown up upon a false eternal framework of *uniformity*—blame Plato, and abandon metaphysics *despite having never followed Plato’s educational thesis in the first place!* Although much of our Western culture can be attributed directly to Plato (and Pythagoras), the *series of footnoted to Plato does not exist!!* As Plato himself wrote in the Seventh Epistle:

I can affirm about any present or future writers who pretend to knowledge of the matters with which I concern myself [mystical knowledge of the One]; *in my judgment it is impossible that they should have any understanding of the subject*. It is not something that can be put into words like other branches of learning; only after long partnership in a common life [contemplative community] devoted to this very thing does truth flash upon the soul, like a flame kindled by a leaping spark. *No treatise by me concerning it exists or ever will exist* [emphases added]. (As cited in Wilber, 2000b, p. 329)

In other words, the Dao that one speaks of is not the true Dao.²⁹⁵ Truth is *incommunicable*. Mystery is *inexpressible* in the truest and most profound sense of the word: precisely because of its inward character. While the Westernised mind hates (or fears) secrets—or what it does not know—it must humbly accept one—and *it just so happens to be the very goal of Plato’s educational journey!*

So the *universalism* and *absolutism* critiqued by post-Modernists are a mistaken absolutism, specifically, absolutism-in-naturalism (too much *yang-in-yin*) derived from the rationality, *sub specie aeternitatis*, of Descartes as opposed to the absolutism *beyond* (or the *groundless ground for*) naturalism of Plato. Recall that ancient *physis* denotes *science of Nature* as understood by our Greek ancestors, most notably Aristotle; *physis* concerns the domain of *time*, *perpetuity*, and *indefinite becoming* since *nature* and *becoming* are ultimately synonymous. Hence, *metaphysis* is etymologically what lies *beyond* Nature (time and space) and is concerned with the *timeless*, *eternal*, and *Infinite Being* or *Beyond-Being*.²⁹⁶ It was Descartes that “limited intelligence to reason [and] granted *to what he thought* might be called ‘metaphysics’ the mere function of serving as a basis for physics ... the final limit of human knowledge” (Guénon, 1924/2004, pp. 11-12). Meta-* (Greek: *μετά*) today, denoted the idea of time-independence such as meta-data, which is an extension

of the general (e.g., EXIF or IPTC tags for camera photographs); but the term *meta-* originally denoted *beyond*, not time-independence such as in quantum formalism, but *timelessness*—the domain of the *Universal*. To Guénon (1925/2004),

the pseudo-metaphysicians of the West are in the habit of confusing with the Universal things which, in reality, pertain to the individual order; or rather, as they have no conception at all of the Universal, that to which they fallaciously apply this name is usually the general, which is properly speaking but a mere extension of the individual. Some carry the confusion still further; the ‘empiricist’ philosophers, who cannot even conceive the general, identify it with the collective, which by right belongs to the particular order only; and by means of these successive degradations they end by *reducing all things to the level of sensory knowledge*, which many indeed regard as the only kind of knowledge possible, because their mental horizon does not extend beyond this domain and because they wish to impose on everybody else the limitations which are but the effect of their own incapacity, whether inborn or acquired *through a particular form of education* [emphases added]. (p. 26)

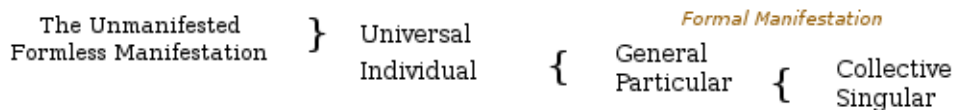


Figure 20. The misappropriation of metaphysics from the Universal (the One) to the collective as established by Guénon. The error subsists from a subset error which can only conceive of {body, mind}. Metaphysics then becomes further dragged into the concept of uniformity that post-Modernists critique so harshly, but then confuse uniformity for universalism-in-naturalism and ignore the Universal altogether! The set {Individual} is the integral individual, comprising all formal manifestation (gross, subtle) whereas the set {Universal} or {One} is truly the unmanifested, but includes the *principle* of formal manifestation, which is formless (supraformal) manifestation. The gross state is nothing other than the corporeal state of existence (collective).

The cup → plate for spirituality is subtle and hidden (*pattern one*) in a Westernised prejudice:

{metaphysics} → {~~metaphysics~~ pseudo-metaphysics, traditional metaphysics}²⁹⁷

Sadly, it is the *analytical* mentality that neglects (or forgets) that the *distinction* of domains does not imply *separation* (*abhedābheda*²⁹⁸). *Form* is dependent on the *formless*, which in turn is dependent on the unmanifest or nondual Godhead (Spirit). Applying pattern two, “religion and science are not really in conflict, for the simple reason that *they do not concern the same domain*²⁹⁹ [emphasis added]” (Guénon, 1962/1995, p. 6)! They are conceived to be in the same domain as we only glimpse the sense-perceptual world (*continuous quantity* or *systems theory*). Thus, we must consider the plates:

$$\{\text{Each}\} \rightarrow \{\text{Each, All}\} \rightarrow \{\text{Each, All, One}\}$$

Unity (Being) is represented symbolically by a dot at the centre of the circle. In the Eastern tradition this is called the *bindu* point. It can, furthermore, be the Self in reference to the Eastern *ego*. By an *inversion* of geometrical symbolism the dot encompasses the entire circle, as simply drawing concentric circles (Model II) only leads to a conceptualisation to greater span (All) without any *depth* (Figure 22). As Wilber (2000b) noted, “one of the greatest confusions in general ecological or new-paradigm theories ... is that [systems theorists] often mistake great span for great *depth*” (p. 64); they “then attempt to construct holistic sequences based on size ... because now [mistaking the two] the only *qualitative* distinction they possess is actually *quantitative*” (p. 66)! In other words, *subtle reductionism*. All hierarchy (which distinguishes the *fundamental* from *significant*) is collapsed to a *disqualified cosmos*—the domain of the *predictive* sciences—notably physics. Thus, “the ‘ideal’ of [scientific] knowledge as predictive power would ruin virtually every field it was applied to (including rocks) because its very methods would erase any creativity it would find, thus erasing precisely what was novel, significant, valuable, meaningful” (p. 56). Traditional science, whether Eastern or Western, emphasised the higher domains and placed a relative import to the lower domains due to its correspondence to the higher. Modern science, on the other hand, “only takes account of the lower [domains], and being incapable

of passing beyond the domain to which it is related, claims to reduce all reality to it” (Guénon, 1945/2004, p. 5). The Westernised movement toward an “exclusively quantitative character ... has now become assimilated to that of purely mathematical theories³⁰⁰ [which] takes them yet further away from the sensible reality that they claim to explain, [one] situated on a lower plane than that of sensible reality” (p. 166)! In other words, the higher, qualitative certainty of *Being* or *Truth* has been mistaken by a lower, quantitative certainty of *truth*, since “principial *immutability* is by no means the *immobility* of a stone, nor true unity the uniformity of beings denuded of all their qualities [emphases added]” (p. 5). Immovability (as *predictive power*) becomes a *caricature* of immutability. *Amazing how many hidden patterns* (∃) *to sort through!*

In Model II, diversity became the cure to uniformity but in all metaphysical rigour, uniformity follows directly from the separability implied in the *unit* spread *monologically* (Model III); in Figure 3, the unit is represented by pure Quantity (*Each*) which is an inverse transposition of Unity represented by pure Quality (*One*)—unit and unity, moreover, share a common root (Latin: *ūnitās*). So it is *not* the unit,³⁰¹ but “uniformity [that] takes shape as a sort of *caricature of unity*, ... unity itself is *inversely* reflected in the ‘units’ that constitute pure quantity [emphases added]” (Guénon, 1945/2004, p. 52)!! If efforts to move away from Being (*transformation*) and toward theories of *pure becoming* (*translations*) or *uniformity* (whether in technology, industry, schooling, and so on), implying a direction where separability is most accentuated, is essentially to move away from a world that is truly *unified!* Therefore, if Modernity properly belonged to the metaphor of *discontinuous quantity* (*Each*) of interchangeable, indiscriminate, and separate(d) units (read: students, factory workers, and so on), post-Modernity represents a *pulverisation* into *continuous quantity* (*All*). Wilber (2000b) ascribed to systems theory a *subtle reductionism*, a *monological* reduction of “interior depth, value, meaning, and consciousness ... to functional

parts of a mutually interlocking order of *holistic* and *empirical events* [emphases added]” (p. 145). A flatland worldview “is simply the *belief* [emphasis added] that *only the [empirical] world is real*—the world of matter/energy, empirically investigated by *the human senses and their extensions* [emphasis added]” (Wilber, 2000a, p. 70). Recalling *māyā*:

Multiplicity, once it is a possibility, exists according to its own mode, but this mode is *illusory* ... because the very existence of this multiplicity is based upon unity, from which it is derived and within which it is principally contained. ... [Furthermore,] there is a fine distinction ... *between ‘unicity’ and ‘unity’: the first embraces multiplicity as such while the second is its principle* [emphases added]. (Guénon, 1925/2004, pp. 52-53)



Figure 21. The three worldviews corresponding to each model of education. On the left we have the metaphysical movement from Quality (*apex*) to Quantity (*base*). In the middle is the continuous albeit depth-less (w)holistic and systems-oriented worldview. The right shows the mechanical, isolated, and fragmentary worldview. Whereas the triangle shows an *organic, vertical, and Eros-driven* pathway, the middle line shows an *organic, horizontal, and direction-less flatland* pathway—and to many we are nothing but random mutations and accidents! Thus, the subset {Each} begets uniformity and Model I (modern schooling), the subset {Each, Many} begets diversity, ecological wholism, and Model II, and the set {Each, Many, One}³⁰² begets spirituality, verticalness and Model III. A similar philosophy is to see a circle (Eastern) from above and a line (Westernised) from the horizontal vantage point (Dr. Chunlei Lu, personal communication, September 29, 2011).

Recall the previous plate {descending path, ascending path}. Here, *All* and *One* are different; the *whole One* (Infinite Possibility) is an *anterior*³⁰³ concept and the *whole All* is a *posterior* concept. Thus, post-Modernism is built (unconsciously) on a legacy that abandoned the *ascending path, Reflux (Eros), religiousness, or involution*, for the *descending path of Efflux (Agape) where the highest rung on the ladder is rationality*—so *why bother then with anything spiritual?* In the new {Each, All} and

truncated conception, since the infinite One was no longer admitted (“No more Ascent!”), then the Descending or finite or manifest All or Whole was the sole residence of Providence and Harmony. It was no longer the relation of Each and All to the One, but merely the relation of Each to the All. *Systems theory was born*. Put bluntly, *the sum total of the shadows in the Cave was now confused with the Light beyond the Cave* [emphases added]. (Wilber, 2000b, p. 414)

Evolution also partakes of pattern three (*spiritual degeneration*³⁰⁴); “etymologically these terms ‘evolution’ and ‘involution’ signify ... ‘development’ and ‘envelopment’; but we are well aware that in modern language the word ‘evolution’ has acquired quite a different meaning, which has almost converted it into a synonym for ‘progress’” (Guénon, 1925/2004, p. 115).³⁰⁵ Together with the ideals of progress, decontextualised uniformity (often employed historically), and an anti-metaphysical upbringing we are left with an education that has tendencies to see the knowledge of the past as *outdated* or *primitive* (Shiva, 1997).

Traditionally, evolution and involution act in their dynamic aspect as *unfolding* and *winding up*; in other words, “departure into the manifested [evolution], and return to the non-manifested [involution]” (1946/1991, pp. 41-42). Saraswati (2009a) stated the purpose of (tantric) yoga is to follow the path of involution (*nivritti*) through *bindu* to *sahasrara* as opposed to the path of evolution (*pravritti*) of manifestation and extroversion. *As regards the absence of Mindfulness in Westernised education, the lack of cognisance of nivritti makes it pragmatically impotent to pursue!*

More astonishing than equating evolution with progress, is the *reversal* of the term from its original meaning, since “the subtle does not evolve from the gross (scientific evolution³⁰⁶) but the gross evolves out of the subtle (spiritual evolution)” (Saraswati, 2009a, p. 401). The tantric evolution or manifestation can take “two directions: the outward and the inward. In the outward direction Shakti plunges downwards and produces *the world of forms*

[*Platonic shadow*] [emphasis added]. In the inward direction Shakti moves in the opposite direction from the gross to the more subtle” (p. 401). The outward path leads to a deeper veil of ignorance whereas the inward leads to greater awareness, knowledge, freedom and grace (*anugraha*) of divinity. He noted *pravritti*, the motivation for external events, “is the path that most people in the world are now treading” (p. 713). Macro-cosmically, *pure yin* is *Di*, *pure yang* is *T’ien*, and *T’ai Chi* (“pinnacle of Heaven”), representing Unity or transcendent Being, denoted what is prior to their macro-cosmic differentiation. Now *T’ai Chi* “itself presupposes another principle—*Wu Chi* [Chinese:³⁰⁷ 無極], Non-Being or the metaphysical Nought” (Guénon, 1946/1991, p. 19). And combining the *unmanifest* (*Wu Chi* to which *T’ai Chi* essential belongs as it does not enter into its own manifestation) and the *manifest*, whether supra-formal or formal, is the *Tao*. For this reason *nonduality* is greater than *Unity*. So the *motion of Heaven* (*T’ien*) or *expansion of Yang* can only be understood as “purely symbolically ... for there is nothing spatial about it” (p. 45). Micro-cosmically, yin and yang represent “for individual beings [the] births and deaths what Aristotle calls *genesis* and *phthora*, ‘generation’ and ‘corruption’” (p. 42) regarding the *multiple states of the being*. In Latin we have *spiritus*, associated with *breath*, but also connected to the *spiral* where the *yin-yang* concepts are based upon *double spiration*. And these connect further to birth (in-spire) and death (ex-spire) both universally and individually found in traditional teachings based on symbols of sacred science. When we *condense* these traditional teachings merely into bodily or mental (read: *humanistic*) experiences (*too much yin*), we end up with a *category error* which attempts to replace mental experiences with spiritual experiences *à la* Kant (Wilber, 2000b). Our Westernised occupation with the mind-body complex situates (properly) our *phenomenal self* with our *gross* or *waking consciousness*, but sadly *reduces* reality to these two alone! Materiality without spirituality is by definition going *beneath* form as opposed to *toward* (or even *above*) form, a veritable *confusion* lost in multiplicity

(quantity) versus the *fusion* in principial unity (quality):

The word “confusion”³⁰⁸ is particularly appropriate here because it evokes the wholly potential indistinction of “chaos,” and nothing less than chaos is in fact in question, since the individual tends to be reduced to his substantial aspect alone, which is what the scholastics would call a “matter without form” where all is in potency and nothing in act. (p. 67)

A Model II interpretation may see a proper balance of quality and quantity in an attempt to regain a humanistic quality from Cartesian mechanism (infra-human). But these efforts only show a *co-ordination*. Model III, quality is superior to quantity. Hence secular humanism, though *extremely important* as a combatant to the infra-human, still exemplifies, metaphysically, a *decay*; largely “concerned to reduce everything to purely human proportions, to eliminate every principle of a higher order, and, one might say, *symbolically to turn away from the heavens under pretext of conquering the earth*” (p. 17). Humanism in the 20th century subsequently became contemporary secularism; and “owing to its desire to reduce everything to the measure of man as an end in himself, modern civilization has sunk stage by stage until it has reached the level of the lowest elements in man” (p. 17).

Therefore, in a world of *becoming*, humanism focuses solely on “the needs inherent in the material side of his nature, an aim that is in any case quite *illusory* since it *constantly creates more artificial needs than it can satisfy*”³⁰⁹ [emphases added]” (p. 17). Furthermore, the immensity of sensory stimulation today encroaches on productive meditations; *time itself is a scarce resource hand-in-hand the capacity within the information age to augment a constant in-flux of sensory-motor stimuli.*

Model III: A Metaphysical Rejuvenation in Educational Reform

At the end of the mechanisation process, our schooling system becomes nothing more than an engineering experiment with science the engine of prosperity. In the past five

decades (or *centuries*) the spiritual (transformative) dimension has been absent. Thus, modern pedagogy theory has ultimately led to “pointless fluff,” leading not to a sophistication of education, but to the *end* of education (Dr. Jonathan Neufeld, personal communication, October 19, 2010). Should we *replace soul with mind* then the original meaning behind the Platonic tradition parallels the wisdom of the East. When Plato spoke of a ‘separation of the soul from the body’ on the path toward Enlightenment and Illumination, he is in no way referencing a demarcated, disembodied mind, but our astrality: the journey of the soul between *genesis*, *phthora*, and capitalised Knowledge:

Not, of course, a mere erudition, but “the learning that draws the soul away from becoming to being”, knowledge of the “essence that is for ever, and is not made to wander between generation and destruction” (Plato, *Republic* 485 B, 521 D): “all true knowledge is concerned with what is colourless, formless, and intangible ... not such knowledge as has a beginning and varies as it is associated with one or another of the things that we now call ‘realities’, but that which is really real” (*Phaedrus* 247), “really real” corresponding to *satyasya satyam, paramārtha-satyam, ens realissimum*,³¹⁰ τὸ ὄντως ὄν. (Coomaraswamy, 1947, p. 129)

As is well known, “uniform education will not give exactly the same results for all” (Guénon, 1945/2004, p. 52) precisely due to the qualitative differences inherent in every individual that cannot be entirely suppressed. Model III adds *solidification* or *exteriorisation* to the critique of mechanisation, suppressing “in everyone all possibilities above the common level; thus the ‘leveling’ always works downward: ... the tendency toward the lowest, that is, toward pure quantity, situated as it is at a level lower than that of all corporeal manifestation” (pp. 51-52). Education and Western society each support each other and co-evolve as structurally-linked systems: education as the support for a techno-rational society and the school as reflection of society. A rational (social) worldview, moreover, acts

as a magnetic (read: invisible) social equilibrium for all those to attain and none to surpass (Wilber, 2001).

Rationalism Revisited

To Guénon (1945/2004), the postulates of rationalism are essentially defined, by all its forms, whether philosophical rationalism or otherwise, as “a *belief* in the supremacy of reason, proclaimed as a veritable ‘*dogma*’, and implying the denial of everything that is of a supra-individual order, notably of pure *intellectual intuition* [and] the *exclusion* of all true *metaphysical knowledge* [emphases added]” (p. 90). A rational worldview sought the “*exclusive use of reason*, but of reason *blinded* [since] it has been isolated from the pure and transcendent intellect [*Buddhi*], of which, normally and legitimately, it can only *reflect* the light in the individual domain [emphases added]” (p. 94). Wilber provides an incredibly insight as to why reason succumbs to anti-hierarchical tendencies:

Most people of today use reason without really knowing the ontogenetic stages that produced it. ... It is simply not immediately obvious to reason that reason itself developed or evolved. ... Thus, the natural stance of reason is to simply assume that it is apart from the world and can innocently reflect on it. (2000b, p. 450)

The *reflection* paradigm is a legitimate (5th) stage of consciousness (*fulcrum* or *self-sense*). The rational-ego (as personal awareness) comprises the language of representation and reflection; unfortunately, it is a monological representation and depth-less reflection concerning a pre-given world and pre-given subject. Our world has stayed far too long at this (un)awareness stage and has seen cataclysmal results in terms of technological abuse, cultural genocide, and ecological decay—co-incidentally, such *laya* is precisely the hidden role modern education dispenses! The higher fulcrums of transpersonal awareness, in ascending order, are centaur/vision-logic, psychic, subtle, causal, and nondual (Wilber, 2000b). A centaur uses hermeneutic (interior) depth (dialectical and dialogical) and (exterior)

developmental (evolution and network) languages. The language of the psychic is interior vision and exterior vibration, where “the developmental view is supplemented with a vibratory view, where vibration is used to convey not so much a physicalist nature as a *quality of intensity* of awareness. These languages are most common in kundalini yoga and the early stages of tantric unfolding” (p. 649). The subtle domain exemplifies the saint, whose language is inner luminosity and outer archetypes (*Plato*). The causal-level exemplifies the sage, whose language is of emptiness and dreams since underlying luminosity is pure Emptiness, where the Abyss “almost always [refers] to manifestation as the great dream, the great illusion, the dancing play [*lila*]” (p. 650). Finally, the last fulcrum is the nondual of the siddha (2000a), whose language is the extraordinary ordinary, where interior and exterior are One. Each fulcrum preserves the former so that anything past a rational-ego remains worldcentric (and beyond), but each fulcrum, a true *transformation*, also changes or negates the lower through a higher complexity of depth. Equally important is that each stage can be rationally explained or reconstructed, but “*cannot be rationally experienced*. They can be experienced *only by a transrational contemplative development*, whose stages unfold in the same manner as any other developmental stages, and whose experiences are every bit as real [emphases added]” (2000b, p. 276).

It is important to understand the difference between, what Jean Gebser (1905–1973) called, the “*mental consciousness* and its *deficient*, rational mode. ... [The] ‘rational’ consciousness is not merely sober, logical thinking but rather a whole way of looking at life through reductionistic glasses [...] epitomized in the philosophy of extreme individualism, which decries altruism [emphases added]” (Feuerstein, 1992, pp. 18-19). The mental consciousness emerged and crystallized around the time of Plato, the Buddha, Lao Tzu³¹¹ and so on. However, “during the past several centuries, this consciousness has *congealed into* the ‘rational’ consciousness, which is *fatally imbalanced* [emphases added]” (p. 18).

Whereas many see rationalism as a pinnacle of evolution, according to Feuerstein:

The rational consciousness is the matrix of scientific materialism, virulent ethnocentrism,³¹² terrorism, and existential neuroses. It is a *deficient form* of consciousness, giving birth to deficient social and cultural manifestations. Far from being the summit of human accomplishment, the rational consciousness is an evolutionary *cul-de-sac*. (p. 9)

Rationality, as it originated, meant “the capacity for [universal] perspectivism, for sustained introspection, and for imagining ‘as-if’ and ‘what-if’ possibilities. Rationality ... is the sustained capacity for cognitive *pluralism* and *perspectivism*” (Wilber, 2001, p. 229). Alas, the monotonous uniforming tendency dragged rationality into disarray, placing a world-centric perspective as *the same* for all humans. Universal perspectivism collapsed to universal (too much *yang-in-yin*) which can only be uniformity. On the other hand, the celebration of diversity (perspectives) from the Eco-Romantics “started from the same rational stance of universal perspectivism, but it emphasized the ‘perspectives’ instead of the ‘universal.’” (p. 483). Similarly, Habermas stated that Modernity “pruned reason back into understanding³¹³ and rationality back into purposive rationality” (as cited in Wilber, 2000b, p. 539). The term *purposive* as action-oriented is indicative of early pragmatism which saw social reform in a historic context of education by the father of *functional psychology*, John Dewey (1859–1952).

Metaphysically, which places non-acting (*contemplation*) on the opposite pole of pragmatism (*action*),³¹⁴ is *intuition*, which, like *anonymity*, can take on a superior, qualitative mode or its inferior analogical inverse. Nobel Laureate Henri Bergson (1859–1941), in his legitimate fight against rationalism (and science) in favour of intuition for understanding reality, errs:

Instead of seeking above reason [to] remedy its insufficiencies, he takes the opposite

course and seeks beneath it; thus, instead of turning toward true intellectual intuition, of which he is as completely ignorant as are the rationalists, he appeals to an imagined ‘intuition’ of an exclusively sensitive and ‘vital’ order, and in the very confused notions that emerge the intuition of the senses properly so called is mingled with the most obscure forces of *instinct* and *sentiment* [emphasis added]. (Guénon, 1945/2004, p. 220)

In fact, by placing action (*exterior*) as superior to contemplation (*interior*), an anti-metaphysical prejudice widespread today, is also indicative of a materialistic culture, both *in* education and *from* education as noted in intersubjective and interobjective sensibilities (Model II). As Wilber (2001) stated poetically, socio-cultural trends indicate that the exteriority is *in* and the interiority is *out!* Sadly, it cannot be denied that cognisance of supra-rationalities by faculties such as intellectual intuition has all but decayed and the *spiritual or intellectual degeneration has occurred side-by-side the degeneration of the heart—which, to Guénon (1962/1995), later came to be known as the seat of emotions:*

When intellectual intuition, which resides in the heart, had ceased to be recognised and reason, which resides in the brain, had usurped the illuminating role of the intellect, there was nothing left for the heart but the possibility of being looked on as the seat of affectivity. (p. 286)

To clarify, it is the universal order of *Buddhi* or *Nous*—beyond the individual order of mentation and ratiocination—that can “claim knowledge of universal principles as its proper object; this knowledge, *which is not discursive in any respect* [emphasis added], is acquired directly and immediately by intellectual intuition” (Guénon, 1925/2004, p. 62). Consequently, *Buddhi* implies certitude, its nature *incommunicable* and *inexpressible* as non-formal and non-determinant; *buddhi* furthermore exists in all modalities and states of existence that *all* being are manifested in. Now, the determinant form of consciousness

pertaining to the human order (*ahankāra* or “self-consciousness”) is *manas* which constitutes a ‘rational animal’ or in Scholastic usage, a *differentia animalis* (1932/2004), capable of unfolding an indefinite amount of possibilities—making it immediately *more* and *less* than modern psychological usage. More in the sense of indefinite growth (horizontal), less in the sense that restrictions are inherent in mind (vertical) where there were none in {body, mind} alone. *Buddhi* and *manas* do not apply to the same domain or object and the latter is necessarily the mental expression of the former. Now consciousness, as a condition of existence and *raison d’être* for that state of existence, is necessarily particularized and no more specific to the human order than any other order of existence, whether mineral, plant, animal, human, or any other individual or supra-individual state(s); thus consciousness is also not transcendental like *Buddhi*. Today, however, “the activity in these two different orders, intellectual and mental, can become so *dissociated* as to make them completely independent of each other as far as their respective manifestations are concerned even while being exercised *simultaneously* [emphases added]” (p. 53). Now Saraswati (2009a) taught an identification with the body and mind, “keeps us trapped in a limited realm of existence. *We imprison ourselves*, yet we have the keys to become free again [and experience] *higher* and freer dimensions of existence. The key is *awareness* [emphases added]” (pp. 89-90) which requires Mindfulness. Further:

Unawareness means identification with objects, ideas, etc. This is called *thought*, when the awareness is ensnared and trapped by *the objects of perception*, whether inner or outer. This entanglement can be severed so that objects and ideas are separated from one’s self-identification. That is, *one remains a witness* to all mental perceptions and physical actions. This is called awareness. (p. 724)

Akin to the rationality of Descartes and in the context of *progress* stands August Comte whose *positivist* philosophy can be seen as a foundation for modern education—a

pattern we do not know we exist in! Comte was a humanist, coined the term *altruisme* (altruism), and influenced secularism based on his own social theories that culminated in the *Religion of Humanity* in the context of the French Revolution. Devoted to the sciences, he reversed the relationship of knowledge by situating the lower intellect over the higher faculty of intelligence (which he did not know even existed, I would imagine). Hall (2010a) described positivism as a *system of materialism* which placed *naturalism* as the *culmination* of human endeavours toward knowledge (read: *progress*); by “starting from this narrow point of view he is inevitably led to assume that every possible kind of knowledge is simply a more or less imperfect attempt to arrive at an explanation of the phenomena of nature” (Guénon, 1946/1991, pp. 135-136). As Hall (2010a) described, Comte *believed* that:

The human intellect develops through three stages of thought. The first and lowest stage is theological; the second, metaphysical; and the third and highest, positive.

Thus theology and metaphysics are the feeble intellectual efforts of humanity’s child-mind and positivism is the mental expression of the adult intellect. (p. xxxi)

Such a preconceived idea, in combination with a *totally fantastic notion of history* according to Guénon (1946/1991), assumed these three different types of explanation *succeeded each other in historical order*, despite that “all three explanations relate to specific kinds of knowledge that *have always coexisted*. His mistake was to apply each of them to one and the same object, because by doing so he naturally found them incompatible with each other [emphases added]” (p. 136). Therefore, Comte’s fundamental error “was to suppose that, regardless of the specific kinds of speculation to which man has applied himself, he has always had only one aim in mind: the explanation of natural phenomena” (p. 135). Although it is wrong to contribute an entire field such as sociology to Comte, it nevertheless became an anthropomorphic science of Man or Humanity; “for Comte no other science of man is possible” (p. 137) which is amusing since many rationalists critique

Biblical accounts of Creation as anthropocentric—despite the theological state being of concern to the soul and the metaphysical state, by definition, not being able to admit any anthropomorphism rigorously at all!³¹⁵

A substantial critique, from Wilber (2000b, 2001) argues that most metaphysicians do not take into account that *processes during the early cognitive stages of growth affect (or limits) our own future transpersonal (spiritual) growth!* Therefore, gross-oriented traumas stay with(in) us throughout our lives if not properly sublimated. I feel that the perennialists and metaphysicians I have chosen are beyond this critique (one of many reasons I chose them). Nonetheless, most other metaphysicians operate in the domain of the Universal: {Spirit (Non-Being)} while theologians operate in the domain of {soul, spirit (Being)}. In general, we have the constant battle of knowledge—like the trial of Galileo Galilei—respectively between science and religion (or spirituality):

{body, mind} *versus* {soul, spirit (or Spirit)}

which is the context of our heritage of the Platonic battle between the Descenders and Ascenders. The only way these sets can battle for superiority is if they are placed on a horizontal level, which is absurd. Worse is when naturalism takes the role of (read: rises *above*) spirituality—*hardening* both science and education—where such “training” is systematised to exclusively exercise all one’s mental activity on naturalism.³¹⁶ For a Platonic (spiritual) journey to coincide with education necessitates:

{matter, body (*corporeal*), mind (*psychic*), soul (*subtle*), spirit (*causal*)} → {Spirit}

which is *realised* in Radical Enlightenment or Union (*Yoga*), where the root of *yoga* “is to be found, scarcely altered, in the Latin *jungere* and its derivatives: and the English word ‘yoke’ shows this root in a form almost identical with the Sanskrit” (Guénon, 1925/2004, p. 31).

The last point to make is the subtleties between the Being and its environment. Most critical pedagogy theorists see the debate of innate wisdom versus acquired wisdom as inherently

flawed (Davis, 2004) based on interobjective and enactive (complex) systems. However, once we take cognisance of a *metaphysis-in-physis* error, what comes down to us as innate wisdom is really quite different from the human order, and more to do with the supra-human or ‘pre-human’ order of antecedent state, such that any proper “realization” is passed onto another the consequent state due to its permanent acquisition. Yet all critical theorists place innate wisdom at the gross level (Model I), and then the critique becomes quite easy while also quite arduous since critiquing Model I requires the science of structural coupling (Model II) only decades old!

As Guénon (1946/1991) stated, the being “will manifest itself by clothing itself, so to speak, in elements taken from the environment, and the ‘crystallisation’ of these elements will be determined by the influence exerted on the environment by that being’s own inner nature” (p. 89). Environmental elements will belong to different modalities of {matter, body, psychic, subtle}; “if we take the case of heredity, we can say that there is not only a physiological heredity, but also *a psychic heredity* [emphasis added]” (p. 89). Of course, in a *sub species aeternitatis environment* where the mind is immutable, we have a certain immediate distaste in the West for psychic heredity and generally refuse its existence! Nonetheless, “knowing nothing beyond the psychic domain, they [modern Westerners] believe that the psychic element contains the essential nature of the being itself and represents what it is completely independently of all environmental influence” (p. 90), which is fortified in a {body, mind} *cup* and maintained *sub specie aeternitatis* at the rational order of self-sense development.

Conversely, “there are others in the West who grant the existence of psychic heredity but believe themselves justified in taking this to mean that the being is totally and exclusively determined by the environment” (p. 90) which is the *Hīnayāna no-self doctrine* and also manifests as the *nature-nurture* debate in a flatland ontology. These (seemingly)

opposing beliefs stem from the same fundamental error when looked upon in a higher *plate*: both views fail “to conceive of anything outside and beyond the corporeal and psychic domains” (p. 90) and as such are also both “equally unaware of any principle transcending this manifestation. Behind all these modern theories regarding the human being there still lurks the Cartesian dualism” (p. 90) of an irreducible mind-body split—representing, moreover, “only the superficial and external aspects of the manifested being and are no more than simply modalities of one and the same state of existence” (p. 90). Innate wisdom as pertains to the true being is necessarily beyond both and “a being’s situation in the environment is in the last analysis determined by the nature of that particular being. [Otherwise] it would be impossible for the being to assimilate those [lower] elements in such a way as to make them secondary modifications of itself” (p. 92) whether through essential (vertical) causes or occasional (translation, horizontal) causes.³¹⁷

Transcending rationality. Since rationality is largely synonymous with objectivism (Shiva, 1989) or decontextualised knowledge (Toulman, 1990), it is necessary to transcend it to contextualise rationality. Yet, it is not within rationality to do so; what I posit is *Mindfulness* for a mind-body integrative *centauric* culture to *transcend* the mind-body gone dissociative *rational* culture of industrialism (Model I → II → III as opposed to a regressive Model II → Model I); otherwise the embodied features of thinking, living, and acting are altogether refuted (falsely) in the disembodied and decontextualised intersubjective rational mode (LL, see Figure 19). Whereas post-Modernity would successfully emphasise the variety of perspectives, it took the extreme: all perspectives were equally valid (*relativism*): a heterarchy to replace hierarchy. The contradiction³¹⁸ is that one who thinks solely in heterarchy is already thinking in hierarchy—a paradox coinciding with Zeno of Elea:³¹⁹

The relative is unintelligible and impossible without the absolute, the contingent without the necessary, change without the unchanging, and multiplicity without

unity; “relativism” is self-contradictory, for, in seeking to reduce everything to change, one logically arrives at a denial of the very existence of change. (pp. 39-40)

In a similar argument we have the unmoved mover of Aristotle, a derivative of Platonic philosophy on “the postulation of three orders of being: that which moves unmoved, that which is self-moved, and that which is moved” (Hall, 2000a, p. xx); the unmoved mover is anterior to the self-moved which is likewise anterior to the moved. In Daoist symbolism we have the *uncarved block*. Unfortunately, hierarchical structures, necessary in spirituality (angelic realm) and ecology (organisms nested within organisms), have suffered under political, feminist, and deep ecological movements.³²⁰ One example is Qigong (Chinese: 氣功); in Daoist training, Qigong is taught as only one component in a hierarchical development: “the disciple will progress through several stages of Weigong (External Skill), Neigong (Internal Skill), Qigong (Energy Skill), and Shengong (Spirit Skill) training” (Johnson, 2013, p. 13). The Western worldview simply extracts and abstracts Qigong (Model I & II) as a singular and isolating practice devoid of a greater context (*cup*). But what, then, is the modern West to transcend to? What is the stage of consciousness beyond formal operational? How are stages of consciousness connected with (w)holism? And most importantly, if education, as I posit, is truly central to the mind-body problem, how do mind, body, hierarchy, and consciousness interrelate?

The holonic Kosmos, mindbody centauric vision-logic, and integral consciousness.

If Modernity can be characterised by a parts-based approach to our existence, then post-Modernity can be characterised by (w)holism and systems theory. Each suffer a form of reductionism and each are leading to Gaia’s destruction. Each took universal perspectivism and collapsed to a monological flatland. And each simply operate from an inadequate model lacking all hierarchy—or, at the very most, a span-oriented quantitative hierarchy—and have ultimately led to the *false middle-way*. The etymology of hierarchy has its roots in

theological and metaphysical discourses and means ‘sacred governance’ from the Great Chain of Being with the Seraphim and Cherubim as angelic hierarchies closest to God and Archi, Arch-angels, and angels closest to humans.³²¹ *These are accessible asymmetrical stages of consciousness should an individual do the necessary inner work.*

When one pictures a hierarchy it is often a fragmented hierarchy, where a (self-isolated, independent, and so on) whole is situated above another whole, or a pathological hierarchy where a whole dominates another whole within the same heterarchy. However, in order to solve the various crises (at a higher level), including the tensions between agency and communion (Model II), what we need are neither wholes nor parts but simultaneous whole/parts (Model III) which are embedded, embraced, preserved, and so on. Arthur Koestler has termed the whole/part a *holon* (Greek: ὅλον) from the Greek neuter form of *holos* (ὅλος, whole) where holarchy is hierarchy secularised.³²² Holons display four fundamental capacities further divided into two *translative* (horizontal) capacities of self-preservation (*agency*) and self-adaptation (*communion*) and two *transformative* capacities of self-transcendence and self-dissolution. As Wilber (2000b) stated, 80% to 90% of growth is translational. Applying pattern one, what *masks* (and hinders³²³) vertical transformation, is that

self-adaptation and self-transcendence [are referred to] *interchangeably* [emphasis added], because both embody a type of “going beyond.” But apart from that similarity, the two are different in degree and in kind. In self-adaptation or communion, one finds oneself to be *part* of a *larger* whole; in self-transformation one *becomes a new whole*, which has its own new forms of agency (relative autonomy) *and* communion. (p. 50)

In other words, self-transcendence is the Platonic *Eros*, “a system’s capacity to reach beyond the given and introduce some measure of novelty, a capacity without which, it is

quite certain, evolution would never, and could never, have even gotten started” (Wilber, 2000b, pp. 50-51). Thus, the idea of *learning systems* (Model II) as open, adaptive, enactive, nonequilibrium, and so on, is *insufficient* as holons are self-transcendent (Model III). The solution to the tension circulating between critical and ecological pedagogy theorists is applying patterns one and two to realise a higher depth or spiritual disclosed level of awareness where all holarchies co-evolve and transcends, “which immediately implies that all agency is actually *agency-in-communion* [emphasis added] ... micro and macro—individual and social—evolve heterarchically to new holarchical levels of each” (pp. 71-72). While both camps are correct in their numerous critiques against each other, these critiques only exist because of a flatland ontology. Similarly, in Eastern metaphysical circles you have the same tension between Mindfulness (passive meditation) and visualisation (active meditation), each positing their own view as superior to the flaws found in the other—yet not going so far as to place themselves in the other’s perspective! A proper model would encompass both (*plate*) while understanding the critiques of each since a higher perspective can simultaneousness operate on a lower *cup*, but not vice versa; I believe Mindfulness should be practiced first (but not solely) as Mindfulness strengthens visualisation (Robert Gilbert, personal communication, May 10, 2013).

Further properties of holons include emergence, with each successive level of evolution having greater complexity in an irreversible, irreducible, and thus indeterminate symmetry break (*bifurcation*). Rather than unfreedom, we have the concept for *greater degrees of consciousness and freedom* through Mindfulness training (Wallace, 2011). As a side note, Westernised freedom as defined as being able to do whatever one wishes is, in fact, not freedom at all in the Eastern view—who would view following one’s inklings as being subject to ego! Nonetheless, most importantly is that when a holon emerges, its transcendence *includes* or *preserves* its junior holons, disclosing nonphysical, nonspatial

worlds of translation to a deeper perception: a conversion of “otherworldly” (from a junior holon’s perspective) to “thisworldly.” *Therefore, not only do all (super)holons depend upon their subholons, but, as said already, all metaphysics (interior states) have their physical (exterior) correlates!*³²⁴ But when we analyse matter (*physiosphere*) and life (*biosphere*) in a depth-orientation, humans beings are an *emergent* species of Gaia, therefore, it would be more proper to state that the Earth is *less-than-human* or that humans are *more-than-Earth!!* If the Earth goes, we go, but if we go, then the Earth is still there. Similarly, our mind can control our bodies and do great damage to Earth despite the fact that hierarchically, our (gross) minds depend upon the Earth; *the ecological and educational crisis is as much a return to Nature as it is a transcendence beyond our gross mind.*³²⁵

The Pythagorean Kosmos. In the reductionist lens, “when a holon’s self-transcendence approaches zero (when its creativity is utterly minimal), then the *reconstructive sciences* collapse into the *predictive sciences*” (p. 56). As Wilber playfully noted, most theories (of science and education) operates on the mechanical laws of rocks—and as I have already detailed, without metaphysics, our Westernised science has had a tendency to collapse all quality (essence and depth) into quantity (substance and span). One striking example is *the collapse of the Pythagorean Kosmos into our disqualified cosmos, taking the shadow for the reality, like the prisoners of Plato’s notorious cave:*

The Pythagoreans³²⁶ introduced the term “Kosmos,” which we usually translate as “cosmos.” But the original meaning of Kosmos was the *patterned nature* or *process* of all domains of existence, from matter to math to *theos*, and not merely the physical universe, which is usually what both “cosmos” and “universe” mean today [emphases added]. (p. 45)

The less depth a holon has, the more fundamental (*quantitative*) it is to the Kosmos. Yet the greater depth a holon has, the less span it has as well. We “can perhaps begin to see

that a spiritual dimension is built into the very fabric, the very *depth*, of the Kosmos” (p. 65). If we combine Figures 19 and 22, mind is neither part of nature nor Nature, but of NATURE—the greater qualitative side of interiority and consciousness! However, the scientific worldview, having reduced all interiors to exteriors, thus “the Kosmos to Nature, it then appear[ed] that Nature includes everything, so of course the mind is just part of Nature” (p. 493)! Therefore, “*the mind/body problem is isomorphic to the Kosmos/Nature problem* [emphasis added]” (p. 493).

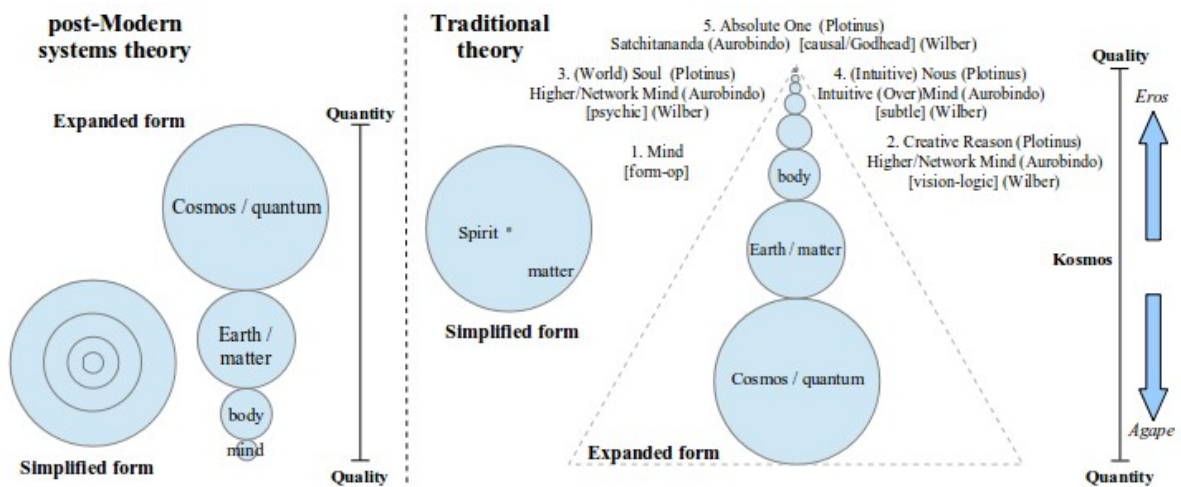


Figure 22. The cosmos versus the (Pythagorean) Kosmos. Each circle represents a successive stage of consciousness. There is no capability of any Eros or Ascent in the modern (left) conceptualisation as the Earth already transcends us as a more-than-human and emergent phenomena. However, as we expand our subset {span} to a fuller set {span, depth} our entire view changes which sees Earth (matter/physiosphere) as necessarily within our body. I draw emphases on the difference between cosmos and Kosmos as (a) the former is in the latter, (b) quality as the superior principle, (c) the differentiation of body and mind, (d) the integration of (gross) body and mind at the vision-logic stage, (e) the triangle which represents Model III where pure spirituality or true intellectuality is situated at the apex and manifestation at the base, and (f) the distinction between psycho-physiological (gross) benefits derived from spiritual practices (like mindfulness, Qigong, and so on) and the higher, subtler benefits. In these higher and healing levels of fulcrums (self-sense) we can resolve paradoxes such as thoughtless thought and actionless action. Also, while all traditional symbolism, whether East or West, would place humans between Heaven and Earth, the post-Modern trend³²⁷ situates humans below the Earth!

In order to contextualise gross manifestation, we must again turn to Guénon

(1945/2004) who represents, if not the last great perennialist of the traditional West, certainly the most eminent; as regards Earth as the *substantial pole* (as *materia secunda* which is not beneath all manifestation), the etymological root of substance, *sub-stare*, has its literal meaning in *that which stands beneath*:

Manifestation has its very root in quantity. Quantity, considered by itself, is only a necessary “presupposition,” but it explained nothing; it is indeed a base, ... by definition that which is situated at the lowest level, so that the reduction of quality to quantity is intrinsically nothing but a “reduction of the higher to the lower,” *and some have very rightly attributed this very character to materialism*. To claim to derive the “greater” from the “lesser” is indeed *one of the most typical of modern aberrations* [emphases added]. (p. 20)

Equally important is the secondary characteristic of a holon: its *negation* of its subholon. For proper differentiation and integration to occur—as opposed to differentiation toward dissociation—higher holons must *preserve and negate*. Rationality in Gebser’s rational consciousness can be characterised as a mental consciousness without preservation of its former subholon. Stated otherwise, the hyper-agency as a pathological heterarchy embedded in a rational culture of translational self-preservation refuses to become negated by a higher holon—specifically, the vision-logic stage of consciousness that integrates the (*gross*) body and mind. *Vision-logic* is a term used by the Eastern philosopher and yogī Sri Aurobindo (1872–1950) and is connected with Heidegger’s existential being-in-the-world and Hegel’s capitalised *Reason* in “its capacity to unify opposites and see identity-in-difference” (Wilber, 2000b, p. 191) as opposed to theories of difference alone (too much *yin*). The egoic-rational holon is *rational-perspectival* since it can *walk in another’s shoe*; vision-logic is the *integral-aperspectival* mind, adding “up all the perspectives *tout ensemble*, and therefore *privileges no perspective as final*: it is

aperspectival” (p. 193). Vision-logic is the transitional stage between gross and subtle consciousness where spirituality truly *blossoms* toward the *trans*-mental. It is also holonic, recognizing hierarchies within hierarchies while still maintaining a *network-mind* within heterarchies. Vision-logic “consciously grasps this [holonic] fact *for the first time*,³²⁸ and thus finds its own operation increasingly *transparent* to itself [emphases added]” (p. 193). Therefore, the centauric vision-logic *bodymind* holon is an emergence capable of integrating body and mind: a mind looking at the mind intersubjectively as opposed to operating within the mind alone (*reflection paradigm*).

The question that arises is if the mind transcends the body, can not rationality be able to integrate them based on the properties of holons? The answer is not likely; the reason for the integrative power of vision-logic over rationality has to do with the our *self-sense* or *gravitational centre* of consciousness which is absent if we just conceptualise the basic structures of body and mind; “in the development of the proximate self-identity or self-sense line, the proximate self of one stage [dies and] becomes part of the distal self of the next” (Wilber, 2001, p. 344). The “developmental sequence of relatively invariant stages ... of the proximate self-sense are exactly the fulcrums of self-development” (p. 344). These fulcrums or stages of consciousness from *dvaita* to *advaita*³²⁹ parallel *traditional* education (Giri, 2013). Since “vision-logic is on the edge of the transmental, the self of vision-logic is increasingly disidentifying with the [gross] mind itself. Because vision-logic transcends formal rationality, it can more easily integrate formal reason and body” (Wilber, 2001, p. 346). Put simply, the rational self-sense is still within the mind and cannot accept the death of the mind.

As Wilber (2000b) concluded, the Quest of post-Modernity had culturally (LL, see Figure 19) been the “centauric vision-logic, or the *aperspectival-integral bodymind as a collective center of social gravity*—a development that ... had to await the evolution of the

computer and *information* [LR] technology [emphases added]" (p. 752). Socially, the industrial (LR) emergence could only culturally support (LL) an instrumental rationality. Therefore, the Quest of Modernity was "the Ego in rationality; the quest of post-Modernity is for the Centaur in aperspectival vision-logic" (p. 752). Mindfulness, for these reasons, becomes a *cultural imperative* for the social (school) environment (Model II) to operate on a higher order of complexity (Model III)—and not simply teach it (Model I). However, rather than lead to *integration* (the task of post-Modernity), it has led to *dissociation* (the effect of Modernity): an ecological nightmare. All upward movement was replaced completely by forward movement (agency or communion alone). Moreover, since rationality has a hard time admitting anything beyond reason, it sees anything *mystical* as *mythical* and denounces it as pseudo-science. Ironically, the place a mythic consciousness held against a rational consciousness, to which rationality was more than happy to eradicate,³³⁰ in particular the historical tension between the church and science, is now where rationality itself resides, strictly below a mystical consciousness awaiting to *emerge*. And all it can do is point back below and re-attack the mythic consciousness structures and deny any higher integration.

Some introductory remarks on Rudolf Steiner's model of education. The only framework I have found that encompasses both our spiritual and material inheritance (in a good light) is the model of Dr. Rudolf Steiner. In ancient days, our etheric body was much more open so spiritual realities were visible seen, albeit with an aphoristic clairvoyance.³³¹ Today they are much closer to our bodies (Robert Gilbert, personal communication, May 10, 2013). For Steiner, the task of the fifth cultural epoch is the development of the *consciousness-soul* (Wilber, 2001) which is kindled with the observation behind sense reality together with *free imagination*; not simply beholding reality ... but living with it. The boundaries of natural science have been limited by *non-free (objective)* imagination which began with brain-free thinking. The development of the consciousness-soul begins with the

unfoldment of inner faculties: the chasm between seen and unseen breached—a true discontinuity, so that it is no longer true to say that *natura non facit saltus* (nature does not make leaps).

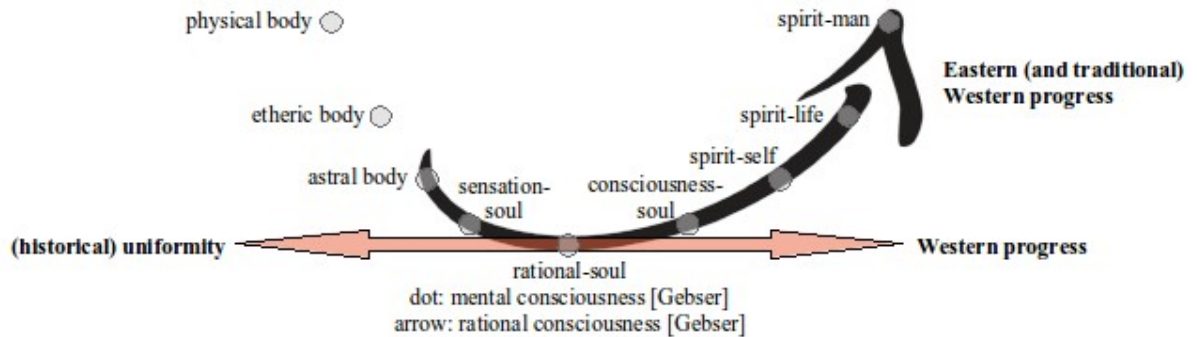


Figure 23. My adaption to Rudolf Steiner’s metaphysical model of education. The development of self-sense emphasises an unfoldment of consciousness over the rectilinear progress of socio-cultural evolution. The student identifies, in stages, with the physical body, etheric body, astral (emotion) body, sensation-soul, and rational-soul (Gebser’s mental consciousness) at the bottom. For instance, during pregnancy, the mother’s womb acts as a protective (physical) shell until childbirth. When the child is born there is an etheric shell that opens. Next the astral shell protects the child until it opens, and so on. At the rational-soul, modern scientific culture has stopped for centuries—the mental consciousness has decayed into the rational consciousness. Subsequent historic uniformitarianism (read: Age of Reason) has led to the point where the modern West only sees the red arrow and derives many theories, perceptions, and conceptions from the error that I identify as the mathematical tangent. The next stage, the consciousness-soul, would be Gebser’s integral consciousness.

For his pedagogical theory, Steiner would compare a physical rock to an etheric seed. The rock remains a mineral, but the seed sprouts into a plant from the hidden complexity within the seed. As Steiner (1994) wrote, “the capacities by which we can gain insights into higher worlds lie dormant within each one of us” (p. 13); however, “we will not find the inner strength to evolve to a higher level if we do not inwardly develop this profound feeling that there is something higher than ourselves” (p. 17). Today, our solidification have led many to believe we have no *chi*, *qi*, *mana*, or *prana* coursing through our bodies—let alone an astral field! Nonetheless, the *etheric field* envelops a white light close to the body and the *astral field* is a bioluminescent aura forming an egg around us. Through meditative practice

these can be seen clairvoyantly or photographed by Kirlian technology (Saraswati, 2009a).

Beyond the astral is the fourth member of the human being, the *I*, the vehicle of the higher soul (Steiner, 1907/1996). In his metaphysical model the *I* is the pivot point which then turns around to act upon the lower members to create three higher members: *spirit-self*, *spirit-life*, and *spirit-man*, while transforming the lower astral, etheric, and physical bodies into *sentient soul*, *intellectual soul*, and *spiritual soul* respectively; in total seven members comprise the human constitution.³³² What *conscience* is anthroposophically “is no more than the result of the *I*’s work on the [etheric] life-body” (p. 12), especially through works of art and religious impulses, since “religion is a powerful way to purify and ennoble the life-body” (p. 12). Such transformation takes (an) entire lifetime(s) whereas transformation of the sentient soul is generally coupled with civilisation—for better or worse—and is readily noticed. Educationally, the development of the four human qualities {physical, etheric, astral, mental} do not occur uniformly in each student. But, every person is sheathed until maturity (an independent existence coupled with the environment). For instance, how the mother’s womb is the physical barrier for the child’s physical organs to mature, so too do the etheric—and later astral—sheath(s) protect the child prior to their differentiation as a quasi-independent modality later on in development;³³³ “the correct³³⁴ foundation for education and for teaching involves a knowledge of these laws of development” (p. 14).

Considerations for the Metaphysical or Symbolical Third Model

On the topic of *play* is the Sanskrit word *līlā*, which Coomarswamy (1987) compares in meaning to *paidia* (Greek: *παιδιά*; “childish play, fun, sport, game”) derived from *παίζω* (*paizō*, “I play”) and *παῖς* (*pais*, “child”). As mentioned prior, the Greek word for education is *paideia*! Analytically, *mere play* is distinct from *real seriousness* since “the worker works for what he needs, the player plays because of what he is” (p. 150); but on a higher level of reference there is an indistinction between play and work: “the work is laborious, the playing

hard; the work exhausting, but the game a recreation. The best and most God-like way of living is to “play the game” (pp. 150-151). When we work according to our nature (*Justice*) we play, otherwise, to Plato, there is insanity. What comes down to us as *entertainment* (secular games) was originally *initiatic* games or “rites, to be participated in only by initiates; and that under these conditions proficiency (*kauśalam*) is never a merely physical skill, but also a “wisdom” (*σοφία*, of which the basic sense is precisely “expertise” (p. 151). Connected to the *artifex*, in a game there exists “nothing to be gained except “the pleasure that perfects the operation,” and the understanding of what is properly a rite, we do not therefore play carelessly, but rather as if our life depended upon victory. Play implies order”³³⁵ (p. 157). What the game requires is to move ourselves “into a better or worse position in accordance with [our] own character. This is essentially an enunciation of the law of *karma* and the doctrine that “fate lies in the created causes themselves” (p. 148) because “although He is the author of our being, we ourselves are responsible for being *what we are*” (p. 148). Once we identify with our divine Heart, and *know who we are*, then, as Plato stated in *Laws* and *Apology*, “‘human affairs ought not to be taken very seriously’ (*μεγάλης μὲν σπουδῆς οὐκ ἄζια*), and that we are asked to ‘take no thought for the morrow’³³⁶ (Matt. 6:34)” (p. 156).

In parallel to process-oriented education, the purpose of the game is to not play to win alone, but participate according to our own nature and play well. Likewise, our Being “participates without being moved, being at peace with himself [*sic*] (*śāntātman*) [calm-minded, composed]” (p. 152). The concept of play also ties into Buddha-*līlā*, “the grace of Buddha’s virtuosity (*kusalām*) is certainly implied, but the direct reference is to his “wonderful works”; the Buddha’s *līlā* is, like Brahma’s *līlā*, the manifestation of himself in act” (p. 152). On the stage, “the puppet is a composite and evanescent product of causal concatenation, not to be regarded as one’s Self” (p. 149) and thus “the divine part of us, our

real Self, or “Soul of the soul” is the impassible spectator of the fates that are undergone by its psychophysical vehicles, it is clearly not “interested” or involved in these fates”³³⁷ (p. 156). To Plato we are a puppet (little self) moved by the Great Self of the Puppeteer; we are God’s *toys* and “we ought to dance accordingly,³³⁸ obeying only that one golden cord of the Law by which the puppet is suspended above” (pp. 148-149). The imagery of the *golden cord* is indicative of the “thread-spirit” (*sūtrātman*) doctrine, which I will touch on momentarily. In Buddhism, when “Buddha is in *samādhi* ‘a Ray, called the Ornament of the Light of Gnosis³³⁹ (*jñānālokāṅkāraṃ nāma raśmiḥ*) proceeding from the opening in the cranial protuberance (*uṣṇīṣuvivurāntarāt*), plays above his head³⁴⁰ (*upariṣṭān mūrdhnaḥ ... cacāra*)” (p. 154) since “when there is gnosis, light shines forth from the orifices of the body, then be it known that ‘Being has matured’ (*vṛddham sattvam*)” (p. 154) or that one has become what they are.

Connecting the *sūtrātmā* doctrine to the Eternal Ideas, “the Divine Intellect is the Spiritual Sun, while the manifested intellect is a ray of the Sun; and there can be no more discontinuity between the Principle and manifestation than there is between the Sun and its rays” (p. 12). The ray of *gnosis* is none other than *Buddhi (Intellect)* while the Sun is analogically transposed into *Ātmā (Divine Intellect)*. The vertical rays (Zenith and Nadir) of a cross correspond to the “World Axis (*skambha*), while those which correspond to North and South, to East and West, determine the extension of a ‘world’ (*loka*) represented by a horizontal plane” (p. 182). At the heart centre is the “seventh ray” or “solar ray” which is the *sushumnā* that connects our manifestation to the Principle; from another angle, the vertical axis is the *sūtrātmā* that acts as a *bridge* uniting the various modalities in each *loka* and linking all the states of the being while remaining at once common to them. Similar still to *sūtrātmā* is the *total Breath (sarvaprāna)* of fire (*Agni*).³⁴¹ Thus, the centre (*origin*) of the cross is either Being or the point of reflection of Heavenly Activity, either way it is through

the centre that leads to angelic worlds:

Thus its extension beyond the sun cannot be represented in any way, and this corresponds precisely to the “incommunicable” and “inexpressible” nature ... for no one can see through the solar disc *by any physical or psychic means whatsoever* [emphasis added], and this passage “beyond the sun” (which is the “last death” and the passage into true “immortality”) is impossible except in the purely spiritual order. (p. 182)

As all perennialists would ascribe, symbolism is the language of metaphysics *par excellence*,³⁴² for everything participates in universal principles: the eternal and immutable essences of *Ātmā*; a problem is that we view *One* quantitatively in a manner akin to one flask, one oak tree, and so on. The idea of God as One subverts to one God having numerous conflicting religions. Religion, too, succumbs to quantity, “now looked upon simply as a social phenomenon. The entire social order is no longer linked to religion, but rather the latter, ... is regarded as no more than one element” (Guénon, 1962/1995, p. 2). Religion collapses to the human order to what is most contingent and degrades from intellectuality derived from Being (*spirit*) and the theosphere (*soul*) to mere sentimentality connected further to branches of psychology and sociology. In one foul swoop, the *secular tradition* places religion at the level of corporeal science—taking the lower at the expense of the higher—while aiming to rid religion at every turn. Nonetheless, even at our most contingent levels of individuality, everyone, by strict definition, represents Spirit in accordance with our order of existence. These (vertical) orders are linked with a correspondence that comprises *universal harmony*, which is super-substantially beautiful, “called Beauty absolutely, both because the beautiful that is in existing things according to their several natures is derived from it, and because it is the cause of all things being in harmony (*consonantia*) and of illumination (*claritas*³⁴³)” (Coomaraswamy, 2007, p. 32). Thus, “beautiful and Beauty are

indivisible in their cause, which embraces All in One. In existing things these are divided into “participation” and “participants”; for we call “beautiful” what participates in beauty” (p. 32).

The heart and the brain. Let us rehash the ontological categories of subjectivity toward knowledge which were (a) a divine masculine Creator outlining Commandments to follow, (b) a consciousness possessing rational agency to make reasonable decisions, and (c) a naturalised child of Mother Earth whose natural world inspires our motivations (*biophilia*), usually as environmental stewards later in life. However, can we not conceptualise all three together rather than compartmentalise and decide between them? As Schuon (1996/2006) stated, “Human life unfolds on three planes simultaneously, or rather the ego is subject to three centers of attraction, to which it responds in different ways according to its nature or worth” (p. 75). Recalling *hylikos*, *psychikos*, and *pneumatikos*, “we live at the same time in the body, the head, and the heart, so that we may sometimes ask ourselves where the genuine “I” is located” (p. 75). The empirical *I* or our self-consciousness (*ahaṅkāra*) “has its sensory seat in the brain, but it readily gravitates toward the body [consciousness] and tends to identify itself with it, whereas the heart is the symbolic seat of the Self, of which we may or may not be aware” (p. 75). Our Heart is “our true existential, intellectual, and therefore universal [consciousness] center [since] the brain is to the body what the heart is to the brain and body taken together” (p. 75). Therefore, body and brain “are as it were projected into the current of forms; the heart is as if immersed in the immutability of Being” (p. 75).

In trying to spatially locate intelligence, Descartes postulated the “seat of the soul” in the brain, specifically the pineal gland. Today, research in dimethyltryptamine (DMT) continues in his footsteps (Strassman, 2001). Scientifically, Richard Strassman, M.D., showed the link between DMT and mystical experiences; not only is DMT naturally produced in our bodies, but found throughout the entire animal *and* vegetative kingdoms! It

is well known that shamans entered higher psychic states with a brew of ayahuasca,³⁴⁴ Quechuan for vine of the soul. The pineal gland together with the pituitary gland has spiritual significance³⁴⁵ on the unfoldment of consciousness (Hall, 1957; Saraswati, 2009a). Rather than rely on plants, however, specific yoga exercises, such as *sirshasana*, aim for the impeccable functioning of the pineal and pituitary, reducing stress and disease while cultivating intuition (Saraswati, 2009a). And with scientific bases of health benefits growing (Kaminoff & Matthews, 2012), is it not time to incorporate these hatha yoga *asanas* into educational practice (Model II), if not spiritual practice³⁴⁶ (Model III)? However, oversimplification, as Saraswati (2009a) cautions, may lead to “the wrong path and [you will] either stay at lower levels of awareness or descend from a higher to a lower one. *Many people have done this and are still doing it* [emphasis added]” (p. 619).

Returning to Descartes, Strassman (2001) wrote that “Descartes, for example, believed the pineal was the ‘seat of the soul,’ and both Western and Eastern mystical traditions place our highest spiritual center within its confines” (2001, p. xv); the statement ‘seat of the soul,’ now widespread, is an unfortunate simplification to Descartes original description of the pineal as the seat of the *rational* soul. Despite the correction, what Descartes envisaged as recursive ratiocination and what Plato asserts as the intuitive *Nous* is of no common measure. Pure intellect is “grasped immediately, thus intuitively, and could not be the object of a discursive knowledge such as that which characterises reason” (Guénon, 1962/1995, p. 292). According to Scholasticism, “it is the pure intellect which is *habitus principiorum*, while reason is only *habitus conclusionum*” (p. 292). Reason, far from being the Illuminating Platonic Sun, is actually the Platonic *shadows* due to its lunar symbolism as it is “a mere *reflection* of universal intelligence in the *individual* order and which is related to the *brain* [emphasis added]” (Guénon, 1962/1995, p. 284)! Finally, we can contextualise thinking *sub specie æternitatis*:

He [Parmenides] thus makes the standard distinction (as does Nagarjuna) between the Way of Truth and the Way of Appearance. To the world of appearance belongs all differentiation, all generation and destruction, all motion and change, whereas the Truth is as it is, perfectly self-existing, and not open to any differentiation or distinctions of any sort. As many scholars have noted, the Way of Truth is seeing the world *sub specie aeternitatis*, and not according to the mere beliefs of mortals or the Way of Appearance.³⁴⁷ (Wilber, 2000b, p. 656)

For the ancients, *reason* was *not* synonymous with *logic* but *intellect* (Schuon, 1991) and for Plato, modern reason is *opinion* (see Figure 25) since a distinction is made between *manas* (*impure*) and *buddhi* (*pure*); *buddhi* arises when *manas* “is brought to rest in its own source (*cittaṃ svayonāṅv upaśāmyate*) by a surcease from fluctuation” (Coomaraswamy, 1987, p. 211) so that *gnosis* is reached through dementation (*amanībhāva*) when “there is no longer a distinction of Knower from Known or of Knowledge and Being, but only a Knowledge as Being and a Being as Knowledge” (p. 212); similarly, in the *Yoga-sūtras* (1:2) by Patañjali: *yoga is the cessation of mental fluctuations or the restraining of mind-stuff (chitta)* which is second of four *hierarchic* functions of the mind comprised in *antahkarana* (“inner conscience, manifest mind”). The first and lowest is *manas* (*mind*), the third is *buddhi* (*intellect*), and the fourth is *ahaṅkāra* (*egoic consciousness*). As Coomaraswamy noted, a humanistic plane of “learning” fails to distinguish dementation from insanity and unknowing (*agnosis*) from ignorance (*avidya*). Surprisingly, even Aristotle placed the seat of Intelligence in the Heart—yet is “exclusively intellectual [mental], and therefore unilateral and necessarily limited—even on the level of his genius—since perfect intellection *ipso facto* involves contemplation and interiorization” (Schuon, 1991, p. 151). Therefore, the seat of the soul is symbolised by the heart, “the most spiritual and mysterious organ in the human body” (Hall, 2010b, p. 180), but not the physical heart itself which would imply a spatial

localisation. The Heart, symbolically, is in the midst between the brain (greatest physical dignity) and the generative system (least physical dignity but greatest physical importance).

The *anahata śakra*, also known as the *hridaya (heart) śakra*, denotes *unstruck* or *unbeaten*, and “is the centre of unbeaten sound. That is, the cosmic sound (*śabda brahman*) is heard at this centre ... a sound that does not arise as a result of two objects hitting.... The sound that is heard is uncaused”³⁴⁸ (Saraswati, 2009a, p. 629). Also, “opening of this chakra produces intense feelings of bhakti [and] the mind becomes overwhelmingly one-pointed which leads to transcendence” (p. 629). However, “there has to be a degree of *self-purification* [emphasis added] before one rises to the level of the anahata chakra” (p. 630). The geometrical symbol for *anahata śakra* are “two interlaced triangles, which together form a hexagon (Star of David). ... At the level of anahata there is a perfect balance between these two aspects of existence [*yin-yang, divine-human*] in the individual” (p. 630). I will return to the geometrical symbolism in The Esoteric Side of the Platonic Cave.

In Christian symbolism the Heart, situated at the center of the Cross, represents *Logos*, Intellect, Immanent Christ, or Christ within, “at once ‘Light’ and ‘Love’: for ‘I am the Light of the world,’ and ‘God is Love.’ Now the Intellect is essentially identified with the Self; it is *aliquid increatum et increabile* [something that is uncreated and uncreatable]” (Schuon, 1981/2008, p. 69). Exoterically or a priori, “the element Truth in Christianity is ... the axiom that Christ is God, and that Christ alone is God; but *a posteriori* or esoterically, the Christic Truth means ... that every manifestation of the Absolute [Each, All] is identical with the Absolute [One]” (Schuon, 1975/2002, p. 2) which is why spiritual traditions are radically noninstrumental in the applications to teaching. Therefore, to enter into Christ is to enter into the Heart (*gnosis*), “the place of the inward and transmuting theophany” (p. 212) since the Self became Heart that the Heart might become the Self (*theiosis*); and this is why the kingdom of God is within you.³⁴⁹ Metaphysical knowledge (*gnosis*)—the quintessence of

faith—is *identification* implying a continuity between consciousness and immanent Substance as the unmanifest is incommensurable and discontinuous with the manifest. Truth by *identification* of the “One Substance can be realized only in the Heart, where the opposition between a knowing subject and an object to be known is transcended; ... any objectification—by definition limitative—is reduced to its limitless source within infinite Subjectivity itself” (p. 49). Thus, the Intellect (*Buddhi*) penetrates the mind and body while the spiritual journey is the absorption of the mind-body into the Intellect. Schuon makes the distinction between terrestrial thought (infrahuman, rational), induced by the environment and finding its end in the environment, and celestial or intellectual thought, where in the human microcosm the Intellect *is* the Self, an expression of the heart, the *Avatâra* (1996/2006). Lastly, the Lotus in Buddhist and pre-Buddhist (*Bön*) cosmological symbolism is the Heart—not as cosmic geography but as

ground whereon and space wherein all existence is unfolded [and] that Buddhahood, *Nirvāṇa*, is not in any place, but represents a state of being, viz. being universally; the Buddha-throne can only be established “within you,” *antarbhūtasya*. The adamantine [unbreakable] throne is the stability of the adamantine intellect.

Knowledge of the Buddha is not the knowledge of any “thing,” but a consummation of the process of de-mentation of discriminative perception, *viññānassa nirodha = ceto-vimutti*. (Coomarswamy, 1935/1998, p. 56)

Like anonymity and intuition, love has its analogical transposition as well. The seat of affectivity or our emotional body is not in the heart, but in the *right brain*. It is therefore polarised in the duality of love and hate. The emotional body of spirituality resides in the Unity of the Heart which is not polarised and represents Unconditioned Love. What has almost been forgotten save in the religious order—of supra-rational intellectuality, not infra-rational sentimentality—is the Heart as the *seat of Intelligence* with a corresponding

solar “central” symbolism of Heat (flaming Heart) and Light (radiating Heart). Sentiment is heat without light and reason “is a light without heat ... which is only a reflected illumination, *cold like the lunar light which is its symbol* [emphasis added]” (p. 286). But the Heart is not the summation of both, a co-ordination of complementaries, but of their union in their principal order: that which transcends the yin-yang symbolism of dualities. Finally, many spiritual traditions speak of intellectual intuition as symbolised by the *eye of the heart* (*eye of the soul*): the *Chante Ognata* of the Sioux Indians, *ayn al-qalb* in Sufism, and so on. There is no modern equivalent.

The scientific heart centre in the aquarius age. With inspiration from the esoteric teachings of Rudolf Steiner, William Tiller, a Stanford professor in materials engineering, is one of the few that have attempted to expand the conventional physical model of reality still based upon an underlying assumption that “no human qualities of consciousness, intention, emotion, mind or spirit can significantly influence a well-designed target experiment in physical reality.” (Tiller, 2007, p. 2): a true body-mind split! To Tiller, modern science is *self-congratulatory*—both prior to the discovery of quantum mechanics and today after its verification of four fundamental forces—asserting these four forces (electro-magnetic, weak nuclear, strong nuclear, and gravitational) can explain all observable phenomena; “establishment scientists feel that it is only a matter of time before a grand unification theory will be developed.... Unfortunately, establishment science has failed to make a reality check on its mindset” (1997, p. 2) since esoteric phenomena is *no longer operationally valid within these four forces*. Again, science has hardened into a dogma and psychoenergetic science is rejected as it does not fit into our current model; predictably “most of the scientific establishment³⁵⁰ has preferred to ‘sweep all these observations under the rug’ rather than accept the limited nature of their present perspective” (2001, p. 386). The dynamic equation of Nature inherited from last century was the cup:

Function \Leftrightarrow Structure \Leftrightarrow Chemistry

which is the context of *allopathic* medicine—which continues today—in “fixing” function and structure with chemistry. Unfortunately (*chaos theory*), both “organism and the threatening invaders gradually adapt to any new chemical complex, becoming less and less sensitive to it, and so an escalation of potency must continue” (p. 2). Worse “the unnatural chemical content begins to influence other levels of body functioning besides the one being treated” (p. 2). Serious side-effects (*expanding cup*) include “percolation [that] spreads the chemicals over a large area and the whole ecosystem begins to suffer from gradual chemical pollution” (pp. 2-3) such as chemical agriculture and nuclear plants. The plate:

Function \Leftrightarrow Structure \Leftrightarrow Chemistry \Leftrightarrow Electromagnetic (EM) Energy Fields

fixes many conceptual difficulties as EM energy fields can have healing effects. However, we still have a plate that is really another cup, as scientists are “becoming uncomfortably aware of the fact there can be harmful and unpleasant side effects associated with the increased use of electromagnetic energy fields in our ecosystem. *Electromagnetic pollution is growing* [emphasis added]” (p. 3). As Tiller prognosticates, “we are at a point in human history where the old image of man has created such an array of potentially terminal problems for our biological simulators that effective survival of this vehicle requires the deep acceptance of a new self-image” (p. 288). The second plate (*new self-image*):

Function \Leftrightarrow Structure \Leftrightarrow Chemistry \Leftrightarrow EM Energy Fields \Leftrightarrow *Mind* \subset Subtle Energy Fields connects with Mindfulness and its absence in pedagogy. Tiller calls it a second Copernican Revolution. To our 4D *physical* reality of space-time (x, y, z, t), which Tiller calls Direct-Space (*D-Space*), he adds an inverse (*mirror principle*) conjugate or concomitant 4D subspace (x, y, z, t)⁻¹ of *etheric* reality called Reciprocal Space (*R-Space*) that interpenetrates space-time to create an 8D reality. In D-Space, electromagnetism from “Maxwell’s equation gauge symmetry is of the U(1) form when only electric charge and electric currents are

present. ... [T]he more complex SU(2) fields can be transformed into U(1) fields by a process known as symmetry breaking” (p. 36). When the symmetry state of our local space exhibits U(1) Gauge symmetry it means “(1) Abelian algebra for all field, x, y, etc., where $xy-yx = 0$, (2), substances are constructed from electric monopoles and *magnetic dipoles* and (3) Maxwellian electromagnetic field equations apply” (2001, p. 1). Modern science and technology “all tend to buttress this prevailing scientific U(1) Gauge symmetry viewpoint [which] has led humanity down a reductionist and materialist path of development” (p. 1). In the conjugate R-Space we have magnetic monopoles—elusive to scientists thus far—and electric dipoles to form the inverse of electromagnetism: magnetoelectrism!³⁵¹ *It is magneto-electric energy—not electro-magnetic energy—that is equivalent to chi, qi, prana, and mana!! To Tiller, our bodies are antennas of higher-ordered lattices and the amplifier/detector system is primarily our autonomic nervous system; moreover, to Tiller, consciousness, on top of constituting awareness and wakefulness, is quantitatively the byproduct of—and limited by—the penetration of spirit into dense matter where spirit is a defined at the subtle level as etheric or magneto-electric energy.*³⁵² *We have an equivalent plate to Figure 19:*

$$\{Mass \rightleftharpoons Energy\} \rightarrow \{Mass \rightleftharpoons Energy \rightleftharpoons Information \rightleftharpoons Consciousness\}$$

I once heard that energy and consciousness are two sides of the same coin (Robert Gilbert, personal communication, May 10, 2013) and Tiller stated, “it is uniquely amusing that we haven’t grown enough in *consciousness* to clearly articulate the difference between them” (p. 49). Also, scientific endeavour has “begun to recognize that the *information* gained in a particular event or process is *negative entropy*³⁵³ [R-Space inverse to entropy] and that, although in the course of evolution, the potential of the physical universe continually decreases, the content of information continually increases” (p. 175). Magnetic information (potential) resides in the physical vacuum and “the two subspaces *may or may not be*

coupled together [emphasis added]” (2007, p. 116).

The last point is significant. If “the subtle realm is modulatable by the human mind, human intentions and human consciousness” (2007, p. 13), then without intention and Mindfulness, magnetic information will not ‘download’ so that all attempt to call spiritual scientists charlatans is really only the result of non-meditative research! If you are disproving intentional research without intentionality, you will likely prove your own point in that nothing will happen! Similarly, there is a large difference between a Qigong master in manipulating subtle energy and a regular scientist with no interest in such discipleship, especially when they do not believe in such *nonsense* despite participation in interior states being precisely what researchers amidst materialistic cultures fail to do. So even with intentions in intentional research, data may fall short of statistical significance—but that does not disprove [UL] intentionality! Concerning Mindfulness and compassion, “in the conventional physics model, although consciousness is tacitly allowed as a factor involved in the collapse of a wave function, there appears to be little room for *robust* mind action or applied human intention. However, [mind] is central to the flow of events in human experience” (p. 67) and *raison d’être* as regards “applied intentionality and applied love in the evolution of self towards higher states of structural organization and consciousness” (p. 67). As Tiller mentions in passing, in an experiment meant to see patterned coloured phenomena in an increasing magnetic voltage field (0 – 16,500V), each child (ages 7 to 15) was “able to perceive [clairvoyantly] these patterns with less *than an hour’s training by another child*. For these children, *we noted that the more creative was a child in normal play*, the more discrete patterns would that child perceive [emphases added]” (p. 26). Most adults cannot see SU(2) which begs the question how education *hardens* a child into seeing only sense-perceptual, U(1) nature!?”³⁵⁴

Applying Tiller’s (2007) higher dimensional model to saints, they have “reached a

high state of inner self-management at the mental [10D] and emotional [9D] levels so that the body substance radiation fields [4D/8D] are harmonious and synchronized” (p. 89) with respect to the cosmos, the environment, and one-Self. Highly enlightened individuals have a greater synergistic correlates from higher dimensions to lower dimensions with accessible energy bands at various dimensions as regards higher consciousness; “although one tends to adopt the physical reference frame as the origin of events about which substance in all the other domains adjust, *this is exactly backwards. Action occurs first in the subtle domains and propagates sequentially into the physical domain* which adjusts towards an equilibrium force balance” (p. 91)! As regards the etheric *čakras*, “at these higher energy fluxes, there is a very great need for balance to occur between the different centers, otherwise energy surges can occur which will damage the weaker links of the system and great imbalances in human behaviour patterns can be expected to ensue” (pp. 180-181). One such imbalance is kundalini sickness where an etheric framework could not compensate for the massive descent of Shaktipot or rise of kundalini and it *fused out* meridian pathways leading to a variety of ailments and ramifications such as tension, drug abuse, depression, and schizophrenia. *Thus, spiritual growth must be slow and steady so that internal organisation matches our belief system.* Sadly, our world is current too attached to materialistic beliefs which Tiller calls a *cognitive jail*, but our evolutionary trajectory, although indeterminable, is certainly headed toward psychic states of awareness. Thus a “biological imperative for the organization of our psychic awareness is now in operation in the human ensemble” (p. 182). As Tiller was fond of saying: we are not only the *product of the process* but also *built by the process*.

How is one to develop inner-management? Tiller discusses three models: Yoga, concerned with stilling the mind with the mind; Qigong which focuses on the Lower Dan Tien (*Hara*) point to still the mind; and a new (or extremely old) model from the HeartMath

Institute,³⁵⁵ which focuses intention on *compassion of the heart* to build interior infrastructure (including relaxation) against the onslaught of “the event density flowing into our daily lives [which] has increased exponentially [with] no indication of a deceleration in this world-wide process”³⁵⁶ (pp. 212-213). Tiller’s argues to first open the *hridaya čakra* for human transformation since its central location—three above and three below—contributes to spin and momentum stabilisation of all *čakras*; but more importantly an “increased coherence associated with our next *level of being* brings on-line huge increased in radiant flux through our multiple bodies” (p. 278) so if one were to open “another center before the heart center, either by accident or by directed intention, then the increased power density starts flowing through underrated conduits which may blow circuit fuses and seriously damage the subtle level circuitry” (pp. 278-279). Interestingly, Dr. Stylianos Atteshlis (Greek: Στυλιανός Αττεσλής), better known as Daskalos³⁵⁷ (a Greek term for Teacher) had a complementary model to Tiller and Steiner. While Steiner would talk about the physical, etheric, astral, and mental as hierarchic constitutions, Daskalos would speak on only three: the gross material body, the psychical (emotional/astral/soul) body, and the noetical (thought) body. To each plane he attached an etheric double—much like Tiller’s R-Space. Each inward body can be developed through the etheric double with various meditations.

Tiller³⁵⁸ also references the nature of the physical heart as it “nourishes all the cells throughout the physical body (via the bloodflow); thus, it must be the organ involved in building the more rugged system to handle the greater power densities” (1997, p. 278). Such a process of change occurs “largely at the etheric level of the cell with some essential ‘conjugate’ changes at the physical level of the cell” (p. 278). Steiner calls this process the *etherization of the blood*. After certain amount of time with spiritual practices, the etheric stream coming from the heart will turn a rosy pink (Robert Gilbert, personal communication, May 10, 2013). So one can have opened their *hridaya čakra* (a pre-condition) but their

stream from the heart remains green, not pink (not actualised, like myself). Similarly, to a clairvoyant seer, many (not all) children are usually born with open *śakras* and some who are particularly sensitive are born with a rose light already intact, but may turn to green or close altogether based on numerous environmental factors (Johanne Galway, personal communication, January 14, 2013).

One last point to make is the reference made to the *Timæus* where Plato discusses the sacred geometrical figure of the tetrahedron ubiquitous to the cosmos (Tiller, 1997). The *star tetrahedron* is the three dimensional symbolism of *hridaya śakra*. Nassim Haramein, another physicist with an esoteric background, has concerned himself with the structure of the vacuum based on sacred geometry and purports that there must be a balance between the expansion and the contraction of the universe and to date, all of modern science is based on the radiating (expansive) part. But if the universe continues to grow, where is the Creator? The simultaneous expansion and contraction requires a very specific topological structure: a *torus*. The *form* of the torus is the *cuboctahedron*, coined the *vector equilibrium* by Buckminster Fuller (1895–1983), and is the only geometry in full equilibrium of all vectorial possibilities (Drunvalo, 2000b); “Bucky observed that the cuboctahedron has the amazing ability, through rotation, to become all five Platonic solids” (p. 229). I picture the torus everywhere: the Sun is a torus, the Earth is a torus, the galaxy is a torus, and so on, all with black holes in the centre. Concerning Model III is that we ourselves have access to these sacred geometrical fields! For instance, the toroidal field coming from our heart and into the heart is accessible in meditation (Drunvalo, 2000a). Similarly, according to Melchizedek, the star tetrahedron can be activated, but is unfortunately deactivated at present time. It is a vehicle of consciousness called the Mer-Ka-Ba (Egyptian) or in Jewish mysticism (*Kabbalah*) the *merkavah* meaning *chariot*. The hexagram symbol is on the cover of my Saraswati (2009a) book, who also points out that the *hridaya śakra* “is widely regarded as

the centre of consciousness (jivatma) in man” (p. 629) which is a reflection of *Ātmā* and is susceptible to numerous spiritual practices;³⁵⁹ He also noted that “as the kundalini progressively rises through the chakras, so the veils of maya are removed” (p. 572) since kundalini rises up *sushumnā* (the middle path) “in accordance with the level of ego effacement. This occurs for a short duration during intense meditation practices or more permanently through a total harmonization of one’s life at all levels” (p. 626). Interestingly, Saraswati cautions that once you pass (or reach) *anahata śakra* you tend to stabilise and cannot regress without ramifications. Drunvalo (2000a) places a second stabilisation at *ājñā śakra*.

The third worldview and the middle way. In the *domain of manifestation*, we can rehash the worldview (Δ) outlined in Figures 21 and 22 in conjunction with the plate {ascending path, descending path} which does not forsake Heaven for Earth, nor escape Earth for Heaven. As Guénon stated, the timeless traditional formulas run: *Heaven covers, Earth supports* and *Heaven is our Father, Earth our Mother* which “translates itself with the greatest of precision into the sensory appearances that serve as their symbols” (p. 23); that is, the designation of the *starry heavens* or *celestial skies* is, therefore, inherently symbolical: heaven represents interiority much like the theological phrase *The Kingdom of God is within you* (*Regnum Dei intra vos est*). In “the Universal, and viewed from their common principle, Heaven and Earth relate respectively to ‘active perfection’ (*Ch’ien*) and ‘passive perfection’ (*K’un*). Though neither is Perfection in the absolute sense: a distinction already exists, and distinction inevitably implies a limitation” (Guénon, 1946/1991, pp. 24-25). As vertical complementaries, “the active term will generally be represented symbolically by a vertical line and the passive term by a horizontal line” (p. 25). Rather than intersect to form a cross, “the whole of the symbol of Heaven should be placed above the symbol of Earth. This gives us a perpendicular with the horizontal at its foot” (pp. 25-26). The *summit of Heaven* (*T’ai*

Chi) is the topmost point on the vertical line and the lateral sides “determine the real extent of the surface of the Earth—that is, to mark off [*delimit*] the ‘ground’ that serves as the support for manifestation” (p. 26). The *fall* of heavenly influence acts down the *sūtrātmā* for all the orders of existence—comprising Universal Existence—situated between the *unmanifest* poles *T’ien* and *Di*; “the center of each state can therefore be considered as the *trace* [emphasis added] of this vertical axis on the horizontal plane which, in geometrical terms, represents that particular state” (p. 98) or *loka* etymologically equivalent to the Latin *locus* or English *place*. Each “centre is in fact the ‘Invariable Middle’ (*Chung Yung*), which means it is the one and only point in that particular state where celestial and terrestrial influences are united” (p. 98).

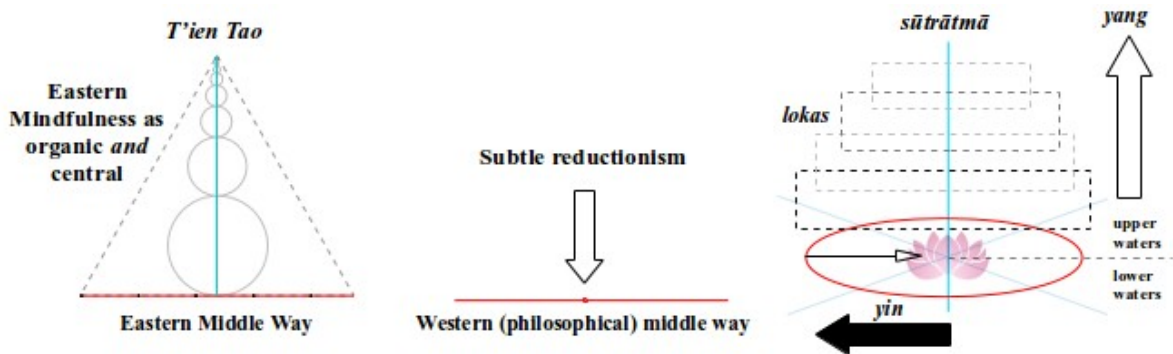


Figure 24. Models I and II as subsystems of Model III. The “Way of Heaven” (*T’ien Tao*) is synonymous with the “Way of Truth” (*sub specie aeternitatis*) against the “Way of Earth” or the “Way of Appearances.” The red line indicates Model II (continuous quantity) if flipped forward and the dots represents Model I (pure [discontinuous] quantity). The origin (*lotus* or *heart*) in the right diagram represents *true man (Jen)* or primordial awareness as an educational (spiritual) directive toward the *unmoved mover* (origin). Here true man resides, “established once and for all at the ‘Unchanging Centre’ (*Chung Yung*). He has now escaped the vicissitudes of the ‘cosmic wheel’, for the centre does not move like the rest of the wheel but is the fixed and stationary point around which the movement occurs” (p. 69). As Guénon (1945/2004) stated, if we do not concentrate on rising toward the upper waters of the formless realm (spiritual domain), we “plunge into the abyss of the ‘ocean below’ [and disperse] in the endlessly changeable ... forms of subtle manifestation” (p. 240); in other words, the inferior psychic elements that make us sorcerers as opposed to saints, “with no suspicion that [we] are mistaking for a fullness of ‘life’ something that is in truth the realm of death and of dissolution without hope of return” (p. 240)! Here *yīn* is terrestrial, outward, and sensible, analogous to our physical sun, while *yang* is celestial, inward, and supra-sensible, analogous to the Spiritual Sun.

In the Scholastic tradition, *trace* is termed *vestigium pedis* (Guénon, 1946/1991) and the same appears in Buddhism since, prior to the iconic Prince Siddārtha (Gautama Buddha) seated in lotus position with half-closed eyes and receiving/giving hand gestures, the Buddha himself had no image; As Coomaraswamy (1935/1998) noted, he was simply likened to *traces (dhātu, vestigia) of footsteps (pada, pedis) in stone* since Buddha (*Dharmakāya*) is an awakened (*abhisambuddha*) transcendental principle from the beginning of time. Symbolically, by passing from the circumference (*outer*) to the centre (*inner*) one “truly fulfills the function of ‘unmoved mover’ in relation to the world that is his [*sic*]. And the ‘action of presence’ belonging to this function *imitates* [emphasis added] in its particular domain the ‘actionless’ activity of Heaven”³⁶⁰ (Guénon, 1946/1991, p. 69).

Recall the immutable Self, *Ātmā*, Unity, and so on “is not affected by any contingency, since it is essentially unconditioned; it is immutable in its ‘permanent actuality’” (Guénon, 1925/2004, p. 35). Therefore, it is indestructible, and “merely develops the indefinite possibilities which it contains within itself, by a relative passing from potency to act through an indefinite series of degrees. Its essential permanence is not thereby affected” (p. 23). And, according to the *Chhāndogya Upanishad*, the seat of *Brahma* (*Brahma-pura*) resides in a small cavity (*dahara*) which dwells in the heart:³⁶¹ “it is *Brahma* which dwells in the vital center of the human being. . . . This vital center is considered as corresponding analogically with the smaller ventricle (*guhā*) of the heart (*hridaya*)” (p. 32) and is smaller than the germ in the grain of millet yet exceeding the domains of gross, subtle, formless altogether (inverted spatial symbolism). Thus the reflection of the macrocosm (*adhidevaka*) in the microcosm (*adhyatmika*) is the destructible “living soul” (*jīvātmā*), the particular manifestation of the “Self” in life (*jīva*). The nature of *jīvātmā* (center of subtle state) reflecting the Light of *Ātmā* is “fundamentally the same as that of the mental faculty during corporeal life” (p. 122) which also reflects the possibilities of NATURE.³⁶²

Possibilities are in *jīvātmā* since *jīvātmā* is our formal prototype of the individuality represented by *pinda* (seed) which “pre-exists individual birth,³⁶³ for it is contained in *Hiranyagarbha* from the beginning of the manifestation of the cycle, as representing one of the possibilities to be developed during the course of that manifestation” (p. 126).

When one reaches this centre, origin, *Chung Yung*, and so on, through spiritual development—although we are not yet beyond the individual state—is what the Daoist hierarchy calls *true man* (*chen jen*), who “is fully and ‘par excellence’ in our state of existence [and] is given the capacity of recognizing Heaven as his ‘True Ancestor’” (1946/1991, p. 67) because they become a Son or Daughter of Heaven and Earth as established in the previous ternary *T’ien-Di-Jen*. In other words, one “is perfectly balanced in terms of *yang* [*act*] and *yin* [*potency*]; it is also why at the same time he is *yang* in relation to the Cosmos” (p. 66) and *yin* in relation to Heaven. While all manifestation has an element of both *yin* and *yang*—hence the diversity (Model II) in our world, but in varying *hierarchical* degrees of each (Model III)—*Jen* is represented at the very *centre* of these two poles, acting as *mediator* or *bridge*³⁶⁴ to unite in equilibrium the *yin*, *passive*, or *terrestrial* (*feminine*) with the *yang*, *actionless*, or *celestial* (*masculine*). Many are simply Sons or Daughters of Earth (too much *yin*) which connects again to Figure 13. Hence *chen jen*, as unmoved mover, is truly the *microcosm*, by reason of their *central* position, “which makes him a ‘summation’ in the sense of the Latin word *summa*, of the totality of manifestation” (pp. 72-73). In other words, *Chen jen* is made in “the image of the True Ancestor” (*Dào Dé Jīng*, 4) which Biblically translates into “So God created man in his own image” (Genesis 1:27, ENV). The image in question is the mediator, connected to “subtle manifestation, this is the ‘intermediary world’ (*antariksha*)” (p. 65) also known as Air (*Bhuvās*) between the upper world of supra-formal manifestation or Heaven (*Svar*) and lower world of gross or corporeal manifestation, otherwise known as Earth (*Bhū*).

The *Svar-Bhuvas-Bhū* ternary form the Hindu triad known as *Tribhuvana*, although care must be given not to equate *Svar* with *T'ien* and *Bhū* with *Di* as *T'ien* and *Di* in the Great Triad *Ti'en-Di-Jen* (∇) are beyond manifestation. However, while *Jen*, situated at the lower apex, is truly the Son or Daughter of Heaven and Earth as we can “be viewed as the product or resultant³⁶⁵ of their reciprocal influences” (p. 23), *Jen* in the same triad *Ti'en-Jen-Di* (∇ → ∴) occupies the role of *mediator*; in other words, between body and spirit where “we find the element properly characteristic of the human individuality as such, the ‘mind’ (*manas*), so that this specifically human element *could be said to occupy the same place in man that man himself occupies in the Cosmos*³⁶⁶ [emphasis added]” (p. 67). The symbol of the mediator is, no surprise, the hexagram depicting Solomon’s Seal of two superimposed triangles like the *hridaya śakra!* The inverted triangle represents terrestrial or substantial (etymologically “universal substratum”) nature and the upright triangle represents celestial or essential nature with *true man* resided between them. The symbol ✧ taken as a whole symbolises *Universal Man*, represented by the Cross between Heaven (circle) and Earth (square). It is Christ, who, uniting these two natures in himself, is thereby the mediator *par excellence*. One who has traversed their way back to the origin, may raise their consciousness up the axis and become transcendent man (*chün jen*).

Ritually it was *Wang* (the King Pontiff) that ruled ancient Chinese districts or civilisations and was situated at the centre (as *chen jen*) to receive the *mandate of Heaven* (*T'ien ming*) in conformity with *order (rita)* since royalty (*yin*) would receive instruction from the sage or priesthood (*yang*). The symbol 王 (*Wáng*, “King, Ruler, Royal”) is revealing of the *T'ien-Jen-Di* where *Wang* creates the Cross via the vertical line through the three worlds, thereby establishing himself as *shen jen*—should he have gone beyond *chen jen*—a mediating (and meditating) *bridge*. It may be romantically or rigorously claimed—depending on the point of view and the circumstances inherent in our terrestrial cycle—that

Wáng was non-acting, had no desire, and saw to the order of his country. Of course, this has been largely abused historically (when *Wáng* was no longer in the centre) and today as well. However, at present time it is the intellect as *manas* that rules—whether scientifically or politically—and not *wisdom*; for wisdom—even reflected wisdom—is found only at the centre with *chen jen*, who “truly possesses the fullness of human nature, due to the fact that he has developed within himself every aspect of the *possibilities* implicit in his humanity. As to other men the best that can be said is that they possess, so to speak, a human *potentiality* [emphases added]” (p. 66). In subtlety,

it is important to distinguish very carefully between “potentiality” and “possibility”:
The first of these two words implies aptitude for a certain *development*; it presupposes a possible “actualization” and can only be applied therefore in respect of “*becoming*” or of manifestation; possibilities, on the contrary, viewed in the principal and unmanifested state, which excludes all “*becoming*,” can in no way be regarded as potential. To the individual, however, all possibilities which transcend him appear as potential, since so long as he regards himself in separative mode, deriving his own being seemingly from himself, whatever he attains is strictly speaking but a *reflection* and not those possibilities themselves; and although this is only an *illusion*, we may say that for the individual they always remain potential [emphases added]. (1925/2004, p. 35)

These considerations are not gained by modern education (*memory*) but found *within* through traditional education. Hence we return again to Platonic *reminiscence* which presupposes *Mindfulness*. Metaphysically, the path to the center (*Chung Yung*) comes before the Middle Way (*Chung Tao*) which is the bridge that links together all the centres of each particular state where external (*terrestrial, yin*), and internal (*celestial, yang*) influences are united—linking “the *sensory* world to the world *beyond the senses*. Each of these

possibilities is just a different expression of the same, fundamental idea of the ‘World Axis’ [emphases added]” (p. 120). At the microcosmic level, *Chung Tao* corresponds “to the ‘subtle’ artery *sushumnā* of the Hindu tradition, which terminates in the *Brahmārandhra*” (p. 112) at top of the head (*sahasrāra cakra*). In Daoism, most teachings are attributed to Lao Tzu or Laozi (老子), born in the Zhou Dynasty (1056 B.C.E–256 B.C.E), who wrote *Dào Dé Jīng* (Chinese: 道德經: 道). However, Chinese belief, according to Johnson (2010), understood “the founder of Daoism was *not* Laozi (whose original name was Li Er), the keeper of the archives in the Zhou Court, but the *Yellow Emperor* (Huang Di) himself, who was believed to live in China as early as 3,000 B.C. [emphases added]” (p. 8). The Yellow Emperor himself was taught by the Shaman and *Wu* priests of the Yang Branch and Yin Branch of Daoist magic. The issue I raise is the inevitable historical association, lending to Western progressivism, that is implied with connecting Daoism to a specific man, erasing its prehistorical, metaphysical, and spiritual context through simplification. Nonetheless, the Daoist *sage* Laozi immediately references the Middle Way at the very beginning of the *Dào Dé Jīng*, stating that “the way that becomes a way is not the Immortal Way” (Pine, 1996, p. 2).

In other words, *the way* that can be *traversed* is not the Absolute, Immortal, or Middle Way since the *T’ien Tao* in Chinese metaphysics and spatial symbolism is “the ‘seventh direction,’ which is not itself and specific direction but contains them all principally” (Guénon, 1946/1991, p. 157). The Heart or lotus (*padma, kamala*) is “the true ‘Middle Way’ in its absolute sense, for it is this center alone that is the ‘Middle Way’ in all [directions]” (p. 157). Therefore, “the centers of the different states of existence [*Chung Yung*] really only have the character of ‘Middle’ by *participation* and as it were by *reflection* [emphases added]” (p. 157). While one is in the state of *chen jen*, there is no right-left or front-back, but still above-below, so there is a transformation: from a three dimensional cross to a line. Here temporal *succession* is “transmuted into *simultaneity*³⁶⁷ at the central

and ‘primordial’ point of the human state” (p. 158). But when one reaches *shen jen*, the Middle Axis is *relative* and undergoes a second transformation—bringing the *line* to the *undifferentiated point (T'ai Chi)* prior to polarisation (of *T'ien* and *Di*). Here all possibilities are unfolded in the point which extends indefinitely outward as the isotropic *universal spherical vortex* “by which the realization of all things is accomplished, and which the metaphysical tradition of the Far East calls *Tao*, that is, the “Way”” (1931/1996, p. 91). As contingent beings, we bear within ourselves our own *individual destiny* or *way*, since we necessarily exist by virtue of the principle of sufficient reason of Possibilities in *Wu Chi* (*we exist because we exist as “manifestable” possibility in non-manifestation*) by modalities susceptible to indefinite variation; our attachment to the Principle, moreover, implies the equal possibility toward greater degrees of freedom by *seeking within*—which, moreover, is never determined, since Being determines Itself (1932/2004).

Thus, I cannot overemphasise inwardness (*religiousness*) which relates to *duḥkha*—as I will discuss in Chapter Four: Reconstructing Education—in educational theory since “the mutation [asymmetrical break] of the integral consciousness *demands our conscious collaboration* [emphasis added] in order to become fully effective ... to replace the deteriorated mental-rational consciousness that has led to today’s global crisis” (p. 19). Inner development or ego-development concerns the pseudo-independent developmental line of the *I self-sense* (Wilber’s *proximate self*) which, together with the *me/mine objective self* (Wilber’s *distal self*) and the *I-I anterior-self (unmoved mover)* comprise the *overall self (integral individuality versus corporeal individuality)*. The *I-I* is not part of Western science or pedagogical concerns since it is connected to *mystery*; as Sri Ramana Maharshi said, if we trace “the source of ‘I,’ the primal *I-I* alone remains over, and it is *inexpressible* [emphases added]” (as cited in Wilber, 2000b, p. 315). *Causal-level absorption* in Emptiness is neither whole, part, nor holon but the reality of these as manifestations. In Emptiness, one becomes

“the opening or clearing in which all wholes and all parts arise eternally. I-I am the groundless Ground, the empty Abyss” (Wilber, p. 532). These understandings come from the *Madhyamaka* (Middle) teachings of Nāgārjuna from *Mahāyāna* Buddhism where Nāgārjuna connected *emptiness* (Sanskrit: *sūnyatā*; Pali: *suññatā*), *pratītyasamutpāda*, and the Middle Way (24:18); he has written that “whatever is *dependent arising*, we declared that to be *emptiness*. That is dependent designation, and is itself *the middle way*” (Garfield, 1995, p. 304).

It has been my intention to make clear that all three models are true conceptions of education since each are already *present*. The difference between them lies only in the order of reality we wish to view education. Each new model offers a greater capacity to work from, thereby offering solutions to its predecessor whose limitations develops problems and paradoxes in lieu of conceptual deficiencies and difficulties. Therefore, each model represents a hierarchy where the former can be contextualised by the latter but not vice-versa. It is at these higher, spiritual levels that true healing, true integration, and *true education* rests along *the Middle Way*.

**CHAPTER THREE: FURTHER METAPHYSICAL IDEAS PERTAINING TO
MODEL III EDUCATION**

If you want to awaken all of humanity, then awaken all of yourself. If you want to eliminate the suffering in the world, then eliminate all that is dark and negative in yourself. Truly, the greatest gift you have to give is that of your own self-transformation.

— Daoist sage, Lao Tzu

Educating the mind without educating the heart [intellect] is no education at all.

— Aristotle

The Kogi Mamas believe that if we remember what and who is in our hearts, we will no longer be able to kill the Earth with our unconscious technology.

— Drunvalo Melchizedek

Science is dry and emotionless and devoid of both conscience and consciousness.

— John Anthony West (on late 20th century science)

To the modern mind, our belief in our own possessive knowledge is objective in nature. However, for all its sophistication, modern mathematics by its nature will not serve to describe absolutes. The physicist must content himself with every closer and more precise approximations, with only chosen aspects of the whole. Science has decided to look at Ali Bab's treasure through a keyhole.

— Pyotr Demianovich Ouspenskii

Johann Wolfgang von Goethe (1749–1832) was not simply a great poet and scientist, clear by his life works which, I add in passing, influenced Steiner tremendously—he was an esoteric student whose *Faust* situates *earthly knowledge* gained from modern education as *vain*. The book opened by Faust that showed the magical and symbolic macrocosm, in effect transforming Faust into a Magus, is likely a genuine metaphysical book that Goethe himself read, namely, the *Opus Mago-Cabbalisticum et Theosophicum* by Georg von Welling (1652–1727)! That (*plate*) aside, in *Elective Affinities*, Goethe stated we exist in a *cage*, for *none are more hopelessly enslaved than those who falsely believe they are free*; parallel concepts include the *crisis in perception*, *plates*, and the *pathologos*, where *partial truths affect us psychologically by its transference, thus limiting our freedom* (Grimes, 1998).

Pierre Grimes, the Platonic Tradition, and the *Pathologos*

Pierre Grimes, founder of the Noetic Society in 1972, said his colleagues, relegated

Platonism “to something quaint and *only of historic interest*. They believed that the *hallmark of philosophical naïveté was to consider Plato’s thought an ideal for which one might strive* [emphases added]” (1998, p. 9). Therefore, “any attempt to adapt it to psychotherapy or to expect that it might rival other spiritual traditions was considered absurd” (p. 9). With *eirōneía*, he classified the *pathologos* as a *new belief*:

I have adapted this *Platonic* idea³⁶⁸ [from his *Theaetetus*] to philosophical midwifery and have applied it to a new class of human problems; ... [A] kind of belief *that has not been previously identified*. The distinctive feature of this new member in the class of belief is that it is *a false belief about ourselves, one that we are not aware that we believe*, yet our actions are consistent with the unknown false belief. Further, because these beliefs are irreconcilable with our personally significant goals, they are the cause of much of our frustration and suffering. ... We call this kind of problem *pathologos* because it is based upon a false or sick belief. This kind of belief can be called sick or false because it causes our failures and suffering. *It blocks our own inner development* and makes us less than what we can be [emphases added]. (p. 1)

As Grimes stated, the *pathologos* recurs endlessly and functions as a monad, manifesting “numerous occurrences of itself in a variety of circumstances as if seeing itself” (1998, p. 20) and manifesting “when we seek significant goals and when we try to maintain and integrate what we have achieved” (p. 2); the problems that emerge from the *pathologos* originate from our self-imposed ignorance, yet “are understandable because they *can be traced to our past learning* [emphasis added]” (p. 2). According to Grimes, “the nature of a *pathologos* problem is applying a solution to inappropriate situations again and again” (p. 2). In approaching the *pathologos* with philosophical midwifery, the learning “awakens a deep appreciation for understanding because it is through it that one grasps the roots of the pathos of human existence” (p. 4). Such a mastery over the Platonic-inspired philosophical

midwifery leads the individual “in reaching its highest goals: *mind, free of delusion*, expressing itself through a *logos* and being able to express it with integrity and a *mindfulness* free of folly [emphases added]” (p. 11). Now Buddhist Mindfulness and secularised mindfulness (*meta-awareness*) training are crucial practices to recognise the patterns playing out in what Grimes calls the *human drama*.

Equivalent to Mindfulness (in reaching spiritual ideals) is *self-remembering* (Ouspensky, 1949/2001) within the (new) spiritual framework of *The Fourth Way*³⁶⁹ developed by George Ivanovich Gurdjieff (1866–1949). Without self-remembrance we default our terrestrial existence to the *school of hard knocks* where spiritual lessons—the pathologos being one such element of—are *repeatedly* manifested in our lives. A theological lesson for firm foundations is the wise and foolish man who built their house on rock and sand respectively (Matthew 7:24-27). Grimes asserts that we are responsible for our state of mind and our irrationality (or *persona*) is learned from conclusions drawn from our interactions; yet it is “possible to verify for oneself that we are part of a caring and intelligible universe ... [T]he mind itself provides ample evidence of its own goodness and intelligibility” (p. 2). Thus, “the problems we have we *should* have, that their solution is in our highest interest, and with the freedom from these problems we can function on a higher and more personally significant level of existence” (p. 17). The *pathologos* is a sick belief, “on that has been learned but *not* taught” (p. 18). Therefore:

It is the shaping of the pathologos through successive refinements that forms *the basic image of the self*. It becomes the *mask*, or the *persona*,³⁷⁰ that is the characteristic way we have of relating to ourselves and the world. Understanding the *interrelationship* between ... the pathologos and the persona is a way of understanding the nature of [our] problems [emphases added]. (p. 21)

The transference of the *pathologos* occurs in the social milieu where the *teacher*

created the appearance of the *knower* to the point of being idealised; imitation sets in from our curiosity, youthful openness, and receptivity “upon which the drama unfolded could only be convincing if *we* were the object of the lesson—the *only* person in the audience. Those acting out their roles had to convince us that they *really knew us* and *our* reality [emphases added]” (Grimes, 1998, p. 22). These past learnings are counterfeits of *Beauty* and *Truth* and have formidable power in their *appearances*. The *pathologos* is a caricature of *Justice* as well since “our belief creates a bridge between the *pathologos* scene and the milieu about us. [It] is the key piece to a puzzle that brings a certain order [false unity] to all that goes on around us that we call the milieu” (p. 25). We accept the *image* of intelligibility as intelligibility—the “way things have to be, ... [but] there is a pain in this recognition because we know that there is something wrong, but we accept it as the way things are. This pain becomes the root cause of our anger. It may be that it is just the way things are, *but it's not justice* [emphasis added]” (p. 25). Thus, the *pathologos* became our ideal—one we unknowingly molded ourselves to—imprinting the ideal to be imitated. Ultimately, “*practical* goals are *substituted* for the *ideal*, and *compromise* soon becomes a solution to everything; and in the process a noble being is transformed into a *shadow* of himself [emphases added]” (p. 28). Platonic imagery in mind, “the self is chained down with compromises, and its own past experience with freedom becomes only a faint memory” (p. 28). Amnesia ensues lest cognisance of the *pathologos* generate subsequent *dissolution* from the *unjust*; a *crisis of separation*³⁷¹ threatens the milieu, signifying, in my model, that one has arrived at the transition toward a plate.³⁷²

Krishnamurti and Steiner on the Subject of Imitation

Having touched upon the concept of imitation I felt it opportunistic to extend its discussion. In short, Krishnamurti (1981) was against imitation, seeing it as a barrier against true education while Steiner (1907/1996)³⁷³ emphasised imitation in his Waldorf educational model; however, these two are not necessarily in conflict as Steiner saw imitation—

alongside *discipleship* and *reverence* for *authority*—as a natural stage in conscious, developmental (educational) growth; what students see directly in their teachers “with inner perception must, for them, become authority—*not authority compelled by force* [emphasis added], but authority that they accept naturally without question. ... Where reverence is lacking, the living forces of the etheric body are stunted in their growth” (p. 24); but, “it is also particularly bad if children prematurely determine their religion and draw conclusions about the world” (p. 46). Obviously, the way teachers handle themselves must not condone bad behaviour through imitation. Thus, mindfulness training for *didactics* (Greek: *διδάσκειν*, *didáskein*, “to teach”) as well as its contrasting term *mathetics* (“to learn”) derived from Greek *μαθηματικός* (*mathēmatikos*, “fond of learning”), *μαθητικός* (*mathetikos*, “easily taught”), and *μάθημα* (*mathēma*, “knowledge, learning”) is essential (Model II/III).

Krishnamurti stated that “as long as there is fear, there is imitation. A mind that merely imitates is mechanical, is it not? It is like a machine in its functioning; it is not creative” (1981, p. 33). Thus, “when inquiry is suppressed by previous knowledge, or by the authority and experience of another, then learning becomes mere *imitation*, and imitation causes a human being to repeat what is learnt without experiencing it” (p. 9). Against reform, he combated our mounting crises and problems with “an action that springs from the understanding of the whole process of living” (p. 1); that “without understanding the whole complex being of man, mere reformation will bring about only the confusing demand for further reforms. *There is no end to reform; and there is no fundamental solution along these lines*³⁷⁴ [emphasis added]” (p. 1). Since *thought* represents the result and not the *source*, a radical transformation of the mind is required; “to inquire and to learn is the function of the mind. By learning I do not mean the mere cultivation of memory [but] the love of understanding... *Learning is possible only when there is no coercion of any kind* [emphases added]” (p. 2). Authority destroys sensitivity and intelligence, and ““the one who knows,’

has no place in learning. The educator and the student are both learning through their special relationship³⁷⁵ with each other” (p. 3). Therefore orderliness of thought “comes into being *naturally* [emphasis added] when the educator understands that in cultivating intelligence there must be a sense of freedom. This does not mean freedom to do whatever one likes, or to think in the spirit of mere contradiction” (p. 3). Instead, a student should “be aware of his own urges and motives, which are revealed to him through his daily thought and action” (p. 3). Finally, discipline is intimately connected with submission to authority.³⁷⁶ In connection with *technologia* (Heideggerian term), discipline “gives the capacity to function within the pattern of a society which demands functional ability [instrumental learning], but it does not awaken intelligence which has its own capacity” (p. 4). *The rational machine has no place in his pedagogy:*

Emotional openness³⁷⁷ and sensitivity can be cultivated only when the student feels secure in his relationship with his teachers. The feeling of being secure in relationship is a primary need of children. There is a vast difference between the feeling of being secure and the feeling of dependency. Consciously or unconsciously, most educators cultivate the feeling of dependency, and thereby subtly encourage fear. (p. 7)

Sensitivity is destroyed with discipline and the mind loses touch with the heart; thus, “where there is fear, there is no love; and knowledge without love destroys us” (Krishnamurti, 1981, p. 115). Connecting intimately with my environmental roots, he stated that love “is *not* sentimentality, nor is it *devotion*. *It is as strong as death*. Love cannot be bought through knowledge; ... a mind that is pursuing knowledge without love is a mind that deals in ruthlessness and aims merely at *efficiency* [emphases added]” (p. 11). A conditioned mind³⁷⁸ cannot be free. It “is not free because it can never go beyond its own borders, beyond the barriers it has built around itself; that is obvious” (p. 54). Therefore, “it

is very difficult for such a mind to free itself from its conditioning [*pathologos*] and go beyond, because this conditioning is imposed upon it, not only by society, but by itself”³⁷⁹ (p. 54). Today, these philosophies are seen as idealistic—which is precisely a problem within the problem itself! Yet those beautiful teachers and researchers that strive for their *ideals* are often trapped in a paradigm that will only cause inevitable discipline against their ideals and subsequent *burn out* from their activism. Western mindfulness then offers stress-reduction whereas an education built on an ecological component (Model II) or foundation (Model III) of Eastern Mindfulness can meet all these qualities in both teachers and students. Think: *Must teachers not experience or understand freedom to necessarily teach it? Does the rigidity of curricula, derived from objectivity and standardisations, oppose freedom (in the Eastern sense)?*

Grimes and the Analogical Teaching Ratios

The *pathologos*, according to Grimes (1998), “effectively blocks a higher mental functioning—the ability to explore the consequences of one’s most important acts—and so keeps relationships on an immature level” (p. 40); “the *pathologos* ensures mediocrity³⁸⁰ by blocking the *understanding*. It is the major obstacle of our *mindful development*. As a result, it is the cause of our failure to participate in the higher reaches of the mind [emphases added]” (p. 40). Therefore, “in accepting the *pathologos* there is a sacrificing of a more *mature seeing* for an *infantile belief*... It is our anger that fuels the *pathologos* and deprives us of our much needed clarity of mind” (p. 41). Bitter resentments nurse sullen fury and “the withdrawal from meaningful conflict deprives us of entering in *mature mindfulness* [emphasis added] and keeps us from participating on the highest level of our ideals” (p. 41). It would seem mindlessness and mediocrity interrelate, and the fundamental question is:

Can the imposition of the *pathologos* be avoided, or is it a necessary phase we must all live with? ... [W]hat kind of circumstances [framework of education] would come

closest to bring [students] into full development without creating the conditions for a pathologos? ... We do not know the answer to that question, but we can hazard a guess. If it were possible, the parents [educators] and the child [student] would be nurtured in the *way of the Logos*,³⁸¹ being true friends and lovers of one another, offering not the slightest hint of opposition to the Logos but settling all their differences justly in an atmosphere of sincerity [and] integrity. (pp. 40-41)

For Plato, terrestrial existence has given us the opportunity (read: task) to overcome effects of divine “communication that have turned us away from pursuing what is right. In the return we recover what we have lost, and that is a *recollection* of what we have forgotten about justice, knowledge, and *sound-mindedness* [emphases added]” (Grimes, 1998, p. 49). Justice³⁸² and Knowledge are the “two things that Plato cites as the value of gaining an earthly existence since it is only here that the soul can gain a training in these very things” (p. 49). Our terrestrial existence is likened to a spiritual training ground, and “for the Platonist, the problems we face today are our lessons for tomorrow” (p. 49). For Platonic teachers and students alike, these concerns go “beyond the simple idea of fairness because it brings to mind the idea of maintaining a clear-headedness, which in the Greek is the idea of *sophrosune* (*σωφροσύνη*), often translated as temperance” (p. 53). The hard-to-translate virtue *σωφροσύνη* can also be self-mastery, moderation, or self-knowledge. If such views are *anachronistic*, I remind the reader:

There is no mystery about discovering the nature of a pathologos problem because *if you are not pursuing the noblest of goals you have a pathologos problem*. Whatever convinced you that you can’t or shouldn’t strive for such an ideal *is the pathologos belief* [emphases added]. (p. 57)

Grimes therefore adds a sixth belief in a previous set of five hierarchical beliefs whose order “from axiom to the pathologos, indicates the degree to which judgments about

oneself, the natural world, the theoretical, and the divine are justified” (p. 62). Each belief can itself be ranked by reference to the mode of its cognitive justification, or lack of it, in the following descending scale:

- a) logical necessity [first principles (axiomatic)]
- b) sufficient evidence [scientific belief capable of being disproved later]
- c) insufficient evidence [simple belief]
- d) lack of evidence [I would label this as “mythic” belief]
- e) denial of evidence [irrational: prejudice or closed-mindedness]
- f) unable to relate to or acknowledge the evidence [irrational: pathologos]. (p. 63)

The transmission of these beliefs have an analogical character to them. Our being is based upon our past learning which we analogically compare to our present conditions. Unfortunately, as regards the pathologos, we “become confused and defensive about [our] situation because [we] cannot relate to the existence of what [we] can’t acknowledge” (p. 63)! The transmission of the pathologos is enacted precisely in the same way as the *teaching paradigm*, represented mathematically as the *mean analogy*:

$$A : B :: B : C$$

For example, as Grimes stated, “*As our grandparents (A) have related to our parents (B) so too our parents (B) relate to us, their children (C)*” (p. 64) which connects us mindlessly to the pathologos *if the* “believer’s present *is to* the past *as* a copy *is to* a model” (p. 63). However, the *function* of the pathologos, as opposed to its *transmission*, is not an analogy, but a *repeating ratio*:

$$A : B :: A : B$$

For “the model [A] *is to* the copy [B] *as* the authority [A] *is to* the child [B]” (p. 64) or “*as* parent-authority *is to* the child so the child *will be to* his child-universe” (p. 65). In other words, the child neither plays the role of the parent nor themselves, thereby making the

transmission *redundant, fixed, and irrational*, undergoing no *transformation*. It is a distorted analogy—*like modern schooling*—replacing the proper teaching paradigm, often called the *dharma transmission analogy* in the East (as well as outlined in Plato’s *Symposium*), which states: “*as the teacher is to the student so too the student in becoming a teacher [read: transformation] can teach and apply that teaching to the universe*” (p. 63). The error in modern schooling is that it simply relates facts as opposed to developing education upon a conscious framework of inner development. Only then can we become a *teacher, guru, or Derwyddon* in the original spiritual sense. Today, teachers, interchangeable as mere *units*, are mechanically made as *auxiliaries*, to conserve correctness (*technologia*) and preserve the opinion of calculations (Dr. Jonathan Neufeld, personal communication, October 5, 2010). However, as regards Platonic education, “the cycle of inquiry, reflecting on our problems, and authenticating in experience [*paradigm*], is the process that brings to birth those beliefs which can then be judged as true or rejected as false [*philosophical midwifery*]” (p. 76). Therefore, Socratic teaching enables the process which “naturally introduces us to a new kind of understanding and reasoning, freeing us from what formerly kept us a shadow³⁸³ of what we are” (p. 76). In acting out our pathologos “we are, in truth, always supremely confident in knowing that we know what we are doing. Truly it is ironic and tragic that at the very time we are revealing the pathologos we are sophists ignorant or our sophistry” (p. 125).

The training for the dialectic was more than the removal of false beliefs.

Traditionally, the dialectic had “three goals: to awaken the desire for knowledge, to draw the mind to the contemplation of intelligible forms, and to purge the mind of the ignorance of the sophists” (Grimes, 1998, p. 129). Grimes extends the dialectic to a fourth stage which purges oneself from our pathologos, since “it is true and it is not true that such believers seek their own good, because they do not seek the good that is beyond the scope of the pathologos [*plate*], yet they do seek a good within its boundary [*cup*]” (p. 131).

While the traditional teaching paradigm, or the dharma transmission analogy is based upon the mean analogy from the perspective of a relationship between teacher and student, the *process* of (Platonic) education is based upon the golden mean or phi (Φ). From the perspective of the student, one undergoes four cognitive stages: ignorance, right opinion, understanding, and knowledge. Therefore:

The cognitive process starts with a kind of *ignorance*, one that is based *on having emptied oneself of all beliefs* about a subject.³⁸⁴ Right opinion is a learning that fills that gap; through understanding one recognizes why those opinions are right; and *confirming that understanding through one's direct experience is knowledge. There is one thing that is taught but there are three cumulative [hierarchic] levels of knowing.* [emphases added] (p. 70)

The spiritual traditions came to view knowledge as the link between knower (subject) and known (object). In modern times knowledge is often confused for *facts on objects* (expanding cup). An educational (read: spiritual) *journey* utilises not the mean analogy, but the *perfect analogy*:

$$A : B :: C : D \Leftrightarrow 12 : 9 :: 8 : 6$$

whose two middle terms are the arithmetic mean analogy ($12 : 9 :: 9 : 6$) and harmonic mean analogy ($12 : 8 :: 8 : 6$) respectively. Since 9 is greater than 8 we have a hierarchical model so that “the perfect analogy can be used to represent *the stages of cognitive functioning in the Platonic cycle of learning* [emphasis added]” (p. 70). Therefore, the ancient philosopher must experience each of these stages and thus practice philosophy as a preparation for knowledge.³⁸⁵ Plato, through Socrates, explored these ideas in his *Republic*, whose imaginary city-state was “a contemplative model for the philosopher’s ascension to reality, which culminates in his becoming the image and likeness of God. It is this ascent that is called true philosophy” (p. 135). Therefore, the city-state was a *symbol* to match the nature

of the soul and its metaphysical journey and not (necessarily) a blue-print for politics!

Furthermore, the Allegory of the Cave has as its framework what Socrates calls *the divided line* which is none other than the *Golden Mean Analogy* or Phi (Φ)! Socrates called the *divided line* (educational framework) *the perfect model of the Good* (Grimes, 1998). Each stage is *incommensurable* with its predecessor, having no common factor between them. If modern schooling is indeed derived from Platonism, it is not only a copy of the model, but a distorted copy at that! The original model was a map for the true philosopher to work their “way through each cognitive level of the model [to] understand and experience just how the copy is generated, or derived from the model, ... grasp[ing] the essence of each” (p. 136) and “to describe the soul’s ascent, or reversion, [*involution*] into higher states of mind” (p. 152). As we all know, the “philosopher-guardian is set out in the *Republic* as the studies which include arithmetic, geometry, astronomy, harmony, and the dialectic” (p. 149). But applying pattern three, “*it is essential to note how differently these studies are taught when they are directed towards philosophical goals because they bear so little resemblance to the way they are usually taught* [emphasis added]” (p. 149).

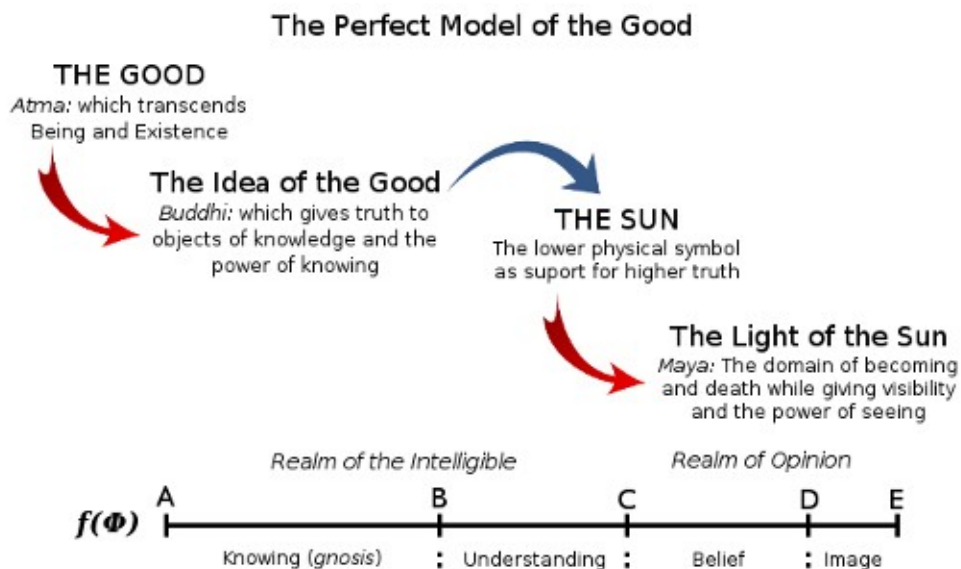


Figure 25. My adaptation to Grimes’s presentation on Socrates’ Perfect Model of the Good. Although the rectilinear line is not to scale, points C, B, and D cut line segments AE, AC,

and CE as *golden sections*. Co-incidentally, from a Platonic perspective, modern science participates in the *Realm of Opinion!* That is, in the corporeal domain whose investigations are only the extension of the senses, no matter how indefinitely far: microscopically small or telescopically large. Each golden section, whether divided by AC:CE, AB:BC, CD:DE, or BC:CD, have *no common measure between them*; in other words, they are *incommensurable*. Geometrically, BC=CD since both understanding and belief derive from assumptions. The *analogical* and *hierarchical* character is indispensable to Socrates for enlightenment, explaining “that if the basis of this analogy can be faulted then everything in the *Republic* resulting from assumption would be invalidated” (Grimes, 1998, p. 136)! To Plato, the Realm of Opinion destroyed Reason while the Realm of the Intelligible developed it. Symbolically, “*as the sovereign term above the visible realm is the sun, and as light is its offspring, just so there is a sovereign term above the intelligible realm which is the Good, and the Idea of the Good is its offspring. Thus, the visible realm is also divided as copy is to model with image-thinking to belief, just as the intelligible realm is divided as copy is to model with understanding to knowledge*” (p. 138). Here *knowing* is the *confirmation in experience* through *intellectual intuition*. It is prudent to mention that Aristotle “said that ‘man [as an individual] never thinks without images,’ that is to say without *forms* [emphasis added]” (Guénon, 1925/2004, p. 62) and the Hindu term *manas* “belongs to the *formal order* (and which includes reason as well as memory and imagination); it is in no way inherent to the transcendent intellect (*Buddhi*), the attributes of which are essentially *formless* [emphases added]” (p. 62).

The purpose of education was to “restore vision to the soul, which, to Plato, *has blinded itself by everyday pursuits* [emphases added]” (p. 149); “all studies that force the soul to turn its vision round to the region where dwells the most blessed part of reality, which it is imperative that it should behold” (p. 149).

Mathematics, science, and art should really be *profane* math, *profane* science, and *profane* art as opposed to the *sacred* geometry, *sacred* science, and *sacred* art of spiritual traditions. Grimes (1998) considered dialectical training as “a preparation of the soul to endure the contemplation of the brightest region of Being” (p. 139) and to “resolve problems that block a unitary view of that reality” (p. 167). The Platonic legacy was nothing short of bringing “into realization man’s participation in the divine. *The nature of that union is the goal of the spiritual evolution of man. With its realization comes the recognition that the hypothesis of the One is no longer a hypothesis*” (p. 174); Therefore,

the purpose of the dialectic is *not* to render intelligible the *sensible* world, nor to use

empirical categories to describe that metaphysical realm, but rather to identify and clarify the ideas proper for an explanation of that *hierarchically structured reality*. For Platonists have only a modest interest in seeking some empirical-scientific hypothesis to account for phenomenal existence. Their primary goal is to grasp the nature of the intelligible that culminates in a *non-dual* viewpoint of the Good or the One and to reconcile the *other modes of existence* into a *unity* that reflect that oneness [emphases added]. (p. 151).

As stated previously, before knowing something of a higher order, *you must become a part of that order*—thereby re-ordering the entire *uni-Verse* through a transformation of consciousness. Gurgjieff described that the typical Westerner understands “what ‘knowledge’ means [and] understands the possibility of different levels of knowledge. ... But they do not understand this in relation to ‘being.’ ‘Being,’ for them, means simply ‘existence’ to which is opposed just ‘non-existence’” (Ouspensky, 1949/2001, p. 65). To Gurgjieff, many people were asleep, yet “the being of two people can differ from one another *more than the being of a mineral and of an animal* [emphasis added]. This is exactly what people do not understand. And they do not understand that knowledge depends on being”³⁸⁶ (p. 65). We have a new plate {knowledge, Being} which connects solidification and Platonic Knowledge as a function of Being whose symbol is Φ . *The symbol Φ is revealing of the Middle Way (中) of Buddhism!!*

There are ... two lines along which man’s development proceeds, the line of knowledge and the line of being. In right evolution the line of knowledge and the line of being develop simultaneously, parallel to, and helping one another. But if the line of knowledge gets too far ahead of the line of being, or if the line of being gets ahead of the line of knowledge, man’s development goes wrong, and sooner or later it must come to a standstill.³⁸⁷ (p. 64).

It is, therefore, no coincidence that the basis of religion is *not* belief, but *intuitive experience* which spiritual gurus confirm in intersubjective validity claims (Wilber, 2000b).

Differences Between East and West or Tradition and Modernity

One could say that *the farthest West is but the farthest East*, but another could counter and say that *East is East, and West is West, and never the twain shall meet*. It is, of course, neither one nor the other as any system of thought will necessarily produce its antithesis: such is the Hermetic law of polarity! From early childhood on I had the philosophical insight that philosophy itself was ingrained in opposites. Any words of wisdom I came upon, someone else was saying the exact opposite phrase with equal strength in argument. I found this truly profound, leading to an early *flowering* toward my early Buddhist disposition and its teachings on the *philosophical Middle Way*. Important differences do exist between the East and the West though, which I outline below. Today, I have one foot in the West which stem from my scientific upbringing and one foot in the East, which, on the contrary, is no less scientific as a contemplative science. As regards our Pythagorean-Platonic tradition, Schuon (1980/2006) wrote:

With Pythagoras one is still in the Aryan East; with Socrates-Plato one is no longer wholly in that East—which in reality is neither “Eastern” nor “Western,” that distinction having no meaning for an archaic Europe—but neither is one wholly in the West; whereas with Aristotle Europe begins to become specifically “Western” in the current and cultural sense. (p. 51)

First, I note the fundamental difference between East (or traditional West) and modern West is that the former attempts to become a higher vestige of one-Self whereas the latter attempts to disprove the highest thinker of one’s era. In over 2,000 years no one has ever disproved the *Buddha*; instead, everyone tries to reach their own *Buddha-nature*.³⁸⁸ In the Western context it becomes a battle for superiority in terms of their own ideologies and

prestige. Blatant polemical attacks thoroughly infuse post-Modern critiques and criticisms; it even caught *me* by surprise whilst trying to outperform Brent Davis rather than appreciate his role in my life whose shoulders allowed me to transcend greater patterns in my life! Nonetheless, the differences begin to accentuate when we analyse modern science in light of earlier traditions. In the former case, sub-divisions and specialisations are, in consequence, the result of the *analytical* mind and tend toward *separability*; contrary to the analytic tendency of the Western mentality is the *intuitive* or *synthetic* tendency of the traditional Western or Eastern mentality (Guénon, 1927/2004). Now, “some of the drawbacks of this specialization have not passed altogether unnoticed, especially the narrowness of outlook that is its inevitable outcome; [an] accumulation of detailed knowledge *such as no man [sic] could hope to take in at once*³⁸⁹ [emphasis added]” (p. 44) is a presupposed albeit necessary evil. However, from a metaphysical perspective, such “detailed knowledge is insignificant in itself and not worth the sacrifice of synthetic knowledge which it entails, for synthetic knowledge, though it too is restricted to what is relative, is nevertheless of a much higher order” (p. 44). The fallacy, to Guénon, is the failure to notice “the impossibility of unifying the multiplicity of this detailed knowledge is due only to their refusal to attach it to a *higher* principle; ... a persistence in proceeding from *below and from outside*, whereas it is the opposite method” (p. 44), from *above and inside*, that allows a science to have any real speculative value. Therefore, the independently-viewed sciences—to which we owe our (educational) inheritance from—claims to deny (to be understood in Model III perspective):

Everything that transcends them, or at least declaring it to be “unknowable” and refusing to take it into account, which in practice comes to the same thing. This negation existed *de facto* long before it was erected into a systematic theory under such names as “positivism” or “agnosticism,” ... the real starting-point of all modern science. (p. 45)

Guénon is referencing speculative science, insofar as it exists; “in applied science there are on the contrary undeniable results, and this is easily understandable since these results bear directly on the domain of matter, the only domain in which modern man can boast any real superiority” (Guénon, 1927/2004, p. 39). However, a consequence from such limitations of modern science, albeit unperceived, is that it lacks in both depth and stability (see Figure 24) “for its attachment to principles enabled it to share in their immutability [Being] ... whereas being now completely confined to the world of *change* [and] no longer starting from any absolute certainty, it is reduced to *probabilities* and *approximations*³⁹⁰ [emphases added]” (p. 46). Western *knowledge* (facts) are not illegitimate, simply the attention it receives as an inferior domain masked as the *only* domain of knowledge (*expanding cup*), thus absorbing the entire activity of our times;³⁹¹ evidently, such absorption connects with *action* and further with *pragmatism*. But what of non-action (*wu wei*)? We can apply patterns 1 and 2 for the plate:

{absence of action (laziness) → {inaction, non-action} or
 {inaction (laziness), action} → {inaction, actionless action, action}

Metaphysicians are astounded that movement and change are actually “prized for their own sake, and not in view of any end to which they may lead [Being]; this is a direct result of the absorption of all human faculties *in outward action* whose necessarily fleeting character [implies] dispersion” (Guénon, 1927/2004, p. 38) and a “tendency toward *instantaneity* [as opposed to *spontaneity*], having for its limit a state of *pure disequilibrium*³⁹² [emphases added]” (p. 38) which connects with Figure 18. Thus, “absorbed by action to the point of denying everything that lies beyond it, they [modern Westerners] do not see that this action itself degenerates, from the absence of any principle, *into an agitation* as vain as it is sterile” (p. 38). To elucidate, the two complementary functions of a traditional science—and by extension a civilisation—are (a) “to link the different orders of

reality and to integrate them into the unity of a single synthesis” (p. 51) and (b) “a preparation for a higher knowledge and a way of approach to it—forming by virtue of their hierarchical positioning, ... by which it is possible to climb to the level of pure intellectuality” (p. 51). Sadly, the difference between East and the modern West is truly between transformation and a denial of it, since *science*, by its own methodologies and limitations, cannot serve either purpose. Ironically, when we consider the scientific claim that *modern science ceaselessly pushes back the boundaries of the known world*, metaphysically, it is in fact the exact opposite of the truth (Guénon, 1945/2004) for never—*in the history of our world*—has scientific boundaries *been so limited!!* I kindly ask the reader to pause and re-read this statement before proceeding to its conclusion: because of “the conceptions admitted by this profane self-styled science, never have either the world or man been so shrunken, to the point of their being reduced to mere corporeal entities” (p. 116)!! Therefore, we arrive at the familiar cup → plate:

{body, mind} → {matter, body, mind, soul, spirit}

On the basis of symbolism, it is possible for the experimental method to be attached to principles, “thus acquiring a real speculative value” (1927/2004, p. 47); however, *profane* science today is a science which posits truth and makes those truth(s) or Truth purposeless. The ability to develop a sacred science from empirical phenomena (as *reflections*) is due to the “correspondence that exists between all the orders of reality, the truths of a lower order can be taken as symbols of those of higher orders, and can therefore serve as ‘supports’ by which one may arrive at an understanding” (p. 53) of those higher orders of Quality, including our own body³⁹³ which is nevertheless an anthropomorphic symbol of a higher reality strictly by definition; “this fact makes it possible for any science to become a sacred science, giving it a higher or ‘anagogical’ meaning *deeper than that which it possesses in itself* [emphasis added]” (p. 53). However, if modern science would attach itself to principles

and posit its true domain, *however humble*, in the (lower) degrees of Universal Existence, it would cease to be profane science as such; it would similarly have to give up many of its hypotheses, especially those scientific mythologies, which Rupert Sheldrake (1942–present) called the *science delusions* and further condemned scientists for being subsidiaries for philosophical materialism (*veiled materialism*).

Scientific Mythologies

Sheldrake (2012) outlined 10 prevailing *dogmas* in the scientific community³⁹⁴ which are enumerated as follows: (1) nature is mechanical (*Cartesian clockwork*); (2) matter is unconscious (*rocks*); (3) the laws of nature are fixed (*metaphysis-in-physis error* which has been reconciled with Prigogine’s extension of the Hilbert space transforming $\Psi(\mathbf{r}) \rightarrow \rho(\mathbf{r},t)$); (4) the conservation of matter and energy; (5) nature is purposeless (no Aristotelian *entelechy*); (6) biological heredity is material and is based on our genes, including epigenetic modifications and cytoplasmic inheritance; (7) memories are stored inside your brain as material traces; (8) mind is inside your brain and consciousness is simply brain activity (*mind-in-brain error* as opposed to a brain in Nature as a physical correlate to the mind in NATURE); (9) psychical phenomenon are impossible (despite adherents to the *Yoga Sūtras of Patañjali* that show, with prolonged practice and deep meditation, a variety of siddhis or psychic abilities unfold (Cremona, 2008); siddhis, moreover, which are still within the psychical world (*magick*) and not even the spiritual order (*pneumatikos*); and (10) mechanistic medicine is the only medicine that really works. Consequently, in Westernised culture feeling “healthy” is falsely synonymous (and widely propagated as true) with its double negative of *not feeling sick*.

As for (corporeal) longevity, many diseases that manifest occur from stress and diet (Cousens, 2000, 2005). Larry Dossey (1991) further classifies three eras of medicine. Era I-medicine is allopathic medicine at the turn of the 20th century with the *magic bullet* ideal

such as the treatment of syphilis with mercury. Its centre of focus was the body alone. However, as I have already mentioned, over 90% of such diseases do not require Era I-medicine as they derive from stress and *diet*. For Dossey, Era II-medicine was a psycho-physiological (mind-body) focus with an interface of emotions and neuropeptides to create balance between the body and mind. His Era III-medicine is nonlocal healing, which is beyond the scope of modern science. Interestingly, his three Eras align with my three models! And if we take my life as an example, it is clear that all three Eras are necessary, but currently Era I-medicine acts as an (exploitative) *expanding cup*. My nutritional and meditative lifestyle is an indication of Era II and my healing treatment and own spiritual practices an indication of Era III.

However, the idea of scientific mythologies predates Sheldrake and is attributable to Guénon. Such *mythologies* robs science of “all intellectual value; as long, that is, as one gives to the word ‘intellectuality’ the fullness of its real meaning, and refuses to share the ‘rationalist’ error of assimilating pure intelligence to reason” (Guénon, 1927/2004, p. 54). Moreover, “the ever-growing rapidity with which such [modern] hypotheses are abandoned in these days and replaced by others is well known, and these continual changes are enough to make all too obvious the lack of solidity of the hypotheses” (1945/2004, p. 120) as well as “the impossibility of recognizing in them any value so far as real [metaphysical] knowledge is concerned” (pp. 120-121); To Guénon, many (not all) modern theories “are also assuming more and more, in the eyes of their authors themselves, a conventional character, and so *a quality of unreality*, and this again may be noted *as a symptom of the approach toward final dissolution* [emphases added]” (p. 121). In other words, scientific theories take on “nothing but a ‘representation’ of outward appearances, denuded of all genuinely explanatory value” (p. 121). Now one such mythology is *atoms* which, first and foremost, is pictured as a sphere to give a kind of *material imagery*; and second, to its etymology, which means *indivisible*,

which “have lately become dissociated in the most recent physical theories (the result of this of course being that they are no longer in any sense atoms, ... though they go on being called by that name in the face of all logic)” (p. 122). Here is an excellent example of *solidification* such as *atomism* with its subsequent *dissolution*—whereby all that is left are *empty shells* devoid of any consciousness or quality—human or divine—as discussed already by Sheldrake, though not with such metaphysical rigour as Guénon. Now the danger of these illusory ideas proffered by modern science

lies in the influence they are liable to exercise on the “public at large” by virtue of the fact that they call themselves “scientific,” for the public takes them quite seriously and blindly accepts them as “dogmas,” and that not merely for as long as they last (that time often being not long enough for them to have even come fully to the knowledge of the public) but more especially when the scientists have already abandoned them. ... This happens because they persist ... *in elementary teaching* [emphasis added] and in works of “popularization,” in which they are always presented in a “simplified” and resolutely assertive form, and not by any means as mere hypotheses, though that is all they ever were for those who elaborated them. (p. 121)

The question becomes, how well can we actually *reason* if our mind is not immutability—as is clearly seen but deliberately ignored—and situated further in intersubjective and interobjective prejudices? I addressed the issue in *Cups and Plates: a post-Modern Platonic Cave*, but with respect to scientific mythologies, the *eirōneía* is that modern education, under the guise of *teaching just the facts*, has succumbed precisely to an indoctrination and substitution for religious dogmas. Whereas the latter can exercise a certain degree of immutability, the former never had any basis in reality whatsoever—except as an *ens rationis!* Guénon points to *individualism* as one of the roots of such errors. And

individualism itself falls within the same socio-cultural context as pragmatism, humanism, naturalism, indefinite growth, and so on (horizontal plane: $\{x,y,z \in \mathbb{R}, z=0\}$). By the severance of “any higher principle,³⁹⁵ *under the pretext of assuring their independence*, the modern conception robs [us] of all deeper meaning and even of all real interest from the point of view of knowledge” (1927/2004, p. 45). Moreover, “the development achieved in this realm *is not a deepening of knowledge*, as is commonly supposed, but on the contrary remains completely superficial [since] *this development can be pursued indefinitely without coming one step closer to true knowledge*³⁹⁶ [emphases added]” (pp. 45-46). Thus, it is best to view the acquisition of empirical facts as no more than indefinite *accumulation* constrained within a limitation, even if such a limitation is beyond view (*proper cup*). Sadly, rare are those who succeed in fully disencumbering themselves of the prejudices inherent in this (Westernised) mentality, and which have been imposed on them by their education and by the very ambiance in which they live.

On Individualism

Individualism was the great triumph of Modernity, but metaphysically, individualism is “the negation of any principle higher than individuality [taken as the corporeal modality], and the consequent reduction of civilization, in all its branches, to purely human elements” (Guénon, 1927/2004, p. 55). Seen another way, individualism, at least philosophically, proclaims that the individual is *a whole unto itself*, isolated to a single state—anthropomorphic, no less—with all other states of existence completely alien to our unicity—should a philosopher even admit such notions! In metaphysical rigour, however, the true notion of the totality of a being *must imply that we necessarily comprise all states of existence within ourselves*, both of manifestation (formal, and non-formal) and non-manifestation; limiting individualism to the human order becomes inextricably linked to *decline*³⁹⁷—whether social, scientific, or the civilisations that birth these sciences through

education—and corresponds to a phase of a traditional cycle that “stand at the antipodes of all genuine spirituality and intellectuality” (p. 56) where development of the *lowest possibilities* of our being take precedent in the illusion of ordinary life. In secular matters, individualism is not all *doom and gloom* either, however contingent, as it forms a respectable stage of the cognitive cycle of growth (Wilber, 2000b). For humanity, unless one is a Sri Ramana Maharishi, one cannot transcend the individual consciousness without first stabilising the egoic-rational fulcrum of self-sense development, lest one confuses the *Mahāyāna* (“Greater Vehicle”) *trans*-self with the *Hīnayāna* (“Lesser Vehicle”) *no*-self (Wilber, 2000b). An insight from Jack Engler sees a lack of stabilisation dissolve into no-self:

Trained in both *Buddhist vipassana (mindfulness) meditation and Western psychotherapy*, [Engler makes] a much more useful theoretical bridge [between East and West]: “*You have to be somebody before you can be nobody.*” That is, it is necessary to form a stable, cohesive self before one can transcend (or deconstruct) that self in pure Emptiness. Condemning the ego for not being Emptiness is like condemning an acorn for not being an oak—and, as we have seen, it is profoundly inadequate both phenomenally and noumenally [emphases added]. (p. 733)

The problem is that individuals, embedded in their intersubjective culture and interobjective society, simply stop further *self-sense* growth! I have even heard the question *why do people even meditate?* from friends! That the spiritual (and psychic) dimension is absent is simply a product of our times; however, dismissing health benefits that accompany mindfulness and contemplative meditation (Model II) for the acquisition of scientific knowledge is a perfect example of a mind dissociated from one’s body—colloquially: a mind-body split! Now it must be remembered that Medieval Scholasticism designated *individuality* as substance or matter and *personality* as essence or form while Plato called

them ὕλη and εἶδος respectively. Today, *matter* is poorly translated from the Scholastic *materia* (ὕλη) which in no way relates to the modern conception of matter as materialism. As ὕλη relates to the vegetative principle (with the corresponding allusion to *root* and Aristotelian *potency*), *materia* corresponds to relative substance (*materia secunda*), but not the substantial principle or universal substance that is below manifestation altogether (*materia prima*) and furthermore represented by pure quantity (*numerus stat ex parte materiae*). As *materia secunda*, *materia* is subordinated by *forma*, which Plato designated ontologically as εἶδος (“idea”)—the essential principle of Being or Unity—equivalent to the Pythagorean (qualitative) *number*. Because *materia prima* is necessarily below all manifestation, it is strictly “said to be ‘unintelligible,’ not merely because we are not capable of knowing it, but because there is actually nothing in it to be known” (Guénon, 1945/2004, p. 17). Therefore, all proper explanation of phenomenon, including ourselves as regards our own education (Model III), “must *not* be sought on the substantial side, but on the contrary it must be sought on the essential side; ... this is equivalent to saying that every explanation *must proceed from above downward and not from below upward* [emphases added]” (p. 17). In other words, from within (*interior*) to without (*exterior*).

Concepts such as “inert matter” are contradictory, as anything truly *inert* would be in *materia prima*, and not *materia secunda*; moreover, inert implies what “would have no properties and would not be manifested in any way, so that it could have no part in what their senses can perceive” (p. 17). The same could be said of *lifeless matter* which has no meaning in our *loka*, as anything lifeless must also have no quality, and pure quantity is below manifestation. Thus, modern scientism often takes the path of uncovering *mystery* in the wrong direction, toward materiality (which is *indistinct* and *least intelligible*) and not spirituality (as *intellectuality*). Since *materia secunda* is not pure quantity (read: not devoid of all determination), Saint Thomas Aquinas denoted our *loka*³⁹⁸ as *materia signata*

quantitate (continuous quantity), which implies that quality is “not inherent in it and is not that which makes it what it is, even if quality is considered only in relation to the sensible order; its place is really quantity, which thus really is *ex part materiae*” (p. 19). But we cannot designate *materia* as *substance* solely based on traditional science despite its close kinship to *mater* (Latin: *mother*), symbolically the *feminine* or *passive principle*. As Guénon stated, *materia* also relates to the Latin *metiri* (“to measure”) with an even closer kinship, as Coomaraswamy stated, to the Sankrit “*mātra*, which literally means ‘measure,’ ... but that which is thus ‘measured’ is *not* the physicists’ ‘matter,’ *it is the possibilities of manifestation inherent in the spirit (Ātmā)* [emphases added]” (as cited in Guénon, 1945/2004, p. 24)!!

Thus, “for everything that can be conceived or perceived (in the manifested world) Sanskrit has only the expression *nāma-rūpa*, the two terms of which correspond to the ‘intelligible’ and the ‘sensible’” (p. 24) which brings us precisely back to Plato and Figure 25. Thus, a subtlety emerges: “quantity is never really that which is measured, it is on the contrary *that by which things are measured* [emphasis added]” (p. 25). Thus, what is *non-measurable* is the Infinite, unaffected by the possibilities it carries within itself, what is *non-measured* has yet to be defined, and what is *measured* (*μέτρον*) “is the defined or finite content of the universe, that is, of the ‘ordered’ universe” (Coomaraswamy, as cited in Guénon, p. 27) where *ordered universe* is nothing other than the *cosmos* (*κόσμος*) as *ordered chaos*; the production of the definite (*order*) from the indefinite (*chaos*) is the process of *illumination* where potentiality subsiding in the substantial (tenebrous) pole is actualised by the essential (luminous) pole. It is this second definition (of measurement) that the Scholastic tradition considered *principium individuationis* (principle of individuation) to designate what Aristotle called *species* (*εἶδος*) which *unified* humanity albeit never reached the transcendental order. However, species is no way implies a *collectivity* which is simply

the arithmetical summation of individuals (*pure span*) and is properly in the domain of continuous quantity; quantity, moreover, is the determination to *principium individuationis* that makes us separate beings as species is entirely qualitative. Any individual tied to the corporeal order alone (*atom*) is then designated as *matter without form*, lost in an indistinct confusion or chaos. Thus, quantity (*matter*) will predominate “over quality in individuals to the extent that they approach a condition in which they are, so to speak, mere individuals and nothing more. ... This separation turns individuals into so many ‘units,’ and turns their collectivity into quantitative multiplicity” (pp. 47-48). As regards education or industry, the consequence,

paradoxical only in appearance, is that to the extent that more uniformity is imposed on it, the world is by so much the less ‘unified’ in the real sense of the word. This is really quite natural, since the [downward] direction in which it is dragged is ... that in which ‘separativity’ becomes more and more accentuated. (p. 52)

Thus the *solidified unit*, once *dissolved* of all quality, which in any case is unrealisable despite unconscious efforts toward such ends, must inevitably become as nearly as possible to a machine.

The Sacred and the Profane

The very term *sacred science* may appear contradictory to those for whom *science* is identified with that particular mode of knowledge (*episteme*) which has come to monopolise almost completely the term science since the 17th century in the West. Science, thus understood, has by definition nothing to do with the sacred, a term which is meaningless in its worldview; evidently, what is called sacred, to the extent that this category still possess meaning in the contemporary world, seems to have little to do with modern science! We have a new cup → plate:

{science} → {profane science, sacred science}

whose distinction lies between the contingent (relative) and the essential (principal) respectively; “as a consequence modern science has no right to be considered as true knowledge since, even if it should happen to state things that are true, its manner of presenting them is nonetheless illegitimate” (Guénon, 1976/2004, p. 185) since modern science is “unable to give the reason for their truth which can only lie in their dependence on principles” (p. 185). Thus, “the only sciences the moderns know or even consider possible—represent only simple, distorted residues of the ancient, traditional sciences” (p. 63). That is, “the lowest part of these sciences, having ceased to have contact with the principles, ... ended up undergoing *an independent development* and came to be regarded as a branch of knowledge *sufficient unto itself* [emphases added]” (p. 63). In the latter stages of successive abstractions from life:

Using terminology to which no plausible significance is attached is nothing but another manifestation of the growing tendency of modern science to become nothing more than an empty “conventionalism,” a tendency that is itself characteristic of the phase of “dissolution” succeeding that of “solidification.” (p. 186)

To give but one *simple* example, negative numbers do not really exist as you can never take away more than what you have. Needless to say, since the analytical cannot transcend its own domain, “the imperfection is not simply inherent in its presents state, as some have wished to believe, *but in its very nature* [emphasis added], that is, ultimately, in its lack of principles” (Guénon, 1976/2004, p. 67). Such a degeneration already began at the time of Plato who expressed sacred truths in a manner that was more rational and less intuitive, but kept to the domain of Nous; Aristotle, on the other hand, “placed truth itself, and not merely its expression, on a profane and ‘humanistic’ plane” (p. 50) albeit “with Aristotle we are much closer to the earth, though not yet so close as to find ourselves cut off from heaven” (Schuon, 1970/2009, p. 41). To Schuon, progressivism obscures metaphysical

decay:

The evolutionist rationalists are of the opinion that Aristotle, being the father of logic, is *ipso facto* the father of intelligence become at last mature and efficacious; they obviously are unaware that this flowering of a discipline of thought, while having its merits, *goes more or less hand in hand with a weakening, or even an atrophy, of intellectual intuition.* (p. 7)

According to perennialist Seyyed Hossein Nasr (1989), *scientia sacra* is to know things in their essence, ultimately *in divinis*, and “is not the fruit of human intelligence speculating upon or reasoning about the content of an inspiration or a spiritual experience which itself is not of an intellectual character” (p. 119). Illumination connects us to “the source of this experience which is the Intellect, the source of all sapience and the bestower of all principial knowledge, the Intellect which also modifies the human recipient that the Scholastics called the potential intellect”³⁹⁹ (p. 119). Unfortunately, as Guénon (1924/2004) stated outright, *Buddhi* has become enigmatic and abstruse:

The civilization of the modern West appears in history as a veritable *anomaly*: among all those which are known to us more or less completely, this civilization is the only one that has *developed along purely material lines*, and this monstrous development,⁴⁰⁰ whose beginning coincides with the so-called Renaissance, has been accompanied, as indeed it was fated to be, *by a corresponding intellectual regress*; ... This regress has reached such a point that the Westerners of today *no longer know what pure intellect is*; in fact *they do not even suspect that anything of the kind can exist*; hence their disdain, not only for Eastern civilization, but also for the Middle Ages of Europe, whose spirit escapes them scarcely less completely [emphases added]. (p. 11)

It is sad—but not difficult for me to say—that I, too, knew nothing of *Buddhi*,

thinking *naturally* that reason was all there was in the Age of Reason (Church of Progress). As Guénon noted, it was Bacon who said: *Antiquitas saeculi juvenus mundi* (*The age of antiquity is the youth of the world*). Personally, I never believed this entirely, and, in fact, it was India, Egypt, and China that consistently reminded me that their knowledges had far surpassed that of modern science, leading me to question for 20 years: *How could they have known or done such things that we cannot do ourselves with the technology we possess?! A question hardly raised and inconsistent with taking whole facts into account—whether archaeologically or anthropologically, at least as presented in education. Nonetheless, there is “no ‘profane realm’ that could in any way be opposed to a ‘sacred realm’; there is only a ‘profane point of view’, which is really none other than the point of view of ignorance”* (p. 53). Hence, most of modern science comprises of *ignorant knowledge* (Plato’s Realm of Opinion), and between the sacred and profane a hierarchy is always preserved “where anything relative is not treated as non-existent, which would be absurd; it is duly taken into consideration, but is put in its rightful place, which cannot but be a secondary and subordinate one” (Guénon, 1927/2004, p. 42). Of course, East and West are no longer what they were in Guénon’s time, leading Schuon (2001/2007) to conclude that:

All civilizations are fallen, but in different ways: the fall of the East is passive; the fall of the West is active. The fault of the fallen East is that it no longer thinks; that of the fallen West is that it thinks too much, and wrongly. The East is sleeping over truths; the West is living in errors. (pp. 17-18)

However, to Steiner (1992), in regards to the East’s acceptance of the West, there is a potential for a living, spiritual development of treasures the West can collect by the technical mode of thought. However, what the West has drawn forth up until now has led only to a mechanistic and materialist conception. Therefore, the treasures lie beneath the cold exterior of Western scientific intellectuality.

Contemplation and Action

The current conception of a bridge between the East and West is the post-Modern (and New Age) attitude *where science meets spirit(uality)* often through an ecological awareness (*nature mysticism*). As Guénon (1927/2004) articulates, the relation between contemplation and action can take a number of justified views concerning a particular order of reality. The first and lowest is *contraries*, and, if indeed irreconcilable, would result in complete incompatibility and become exclusively active or exclusively contemplative in individuals. Such opposition entails disharmony or disequilibrium, an existence privileged from a relative, particular, and limited perspective. What we see, however, is tendencies toward action or contemplation, where one may predominate at the expense of the other—giving only an *appearance* of opposition. As Daoism taught us, opposition finds reconciliation when viewed from a higher level such as *complementarity*: a truer and more harmonious point of view. As complementaries, contemplation and action to a certain extent balance one another. Thereby necessitating a *co-ordination* between two supporting elements, the inner and outer nature of an integral individual. However, if held exclusively to this ideal of striving for a balance between the two, we end up with placing contemplation and action on the same level (*heterarchy*). While duality and complementarity may find expression in a relative truth, the question of hierarchical *sub-ordination* or superiority naturally arises. If there is subordination, one must be true or higher, the other false or lower. Metaphysically, Guénon (1927/2004) stated:

Contemplation is superior to action, just as the unchanging is superior to change.

Action, being merely a transitory and momentary modification of the being, cannot possibly carry its principle and sufficient reason in itself; if it does not depend on a principle outside its own contingent domain, it is but *illusion*; and this principle, from which it draws all the reality it is capable of possessing—its existence and its very

possibility—*can be found only in contemplation*, or, if one will, in *knowledge*, for these two terms *are fundamentally synonymous*, or at least coincide, since it is impossible in any way to separate knowledge from the process by which it is acquired. Similarly change, ... is unintelligible and contradictory; in other words, it is impossible without a principle from which it proceeds and which, being its principle, cannot be subject to it, and is therefore necessarily unchanging; it was for this reason that, in the ancient world of the West, Aristotle asserted that there must be a “unmoved mover”⁴⁰¹ [emphases added]. (p. 37)

Therefore, contemplation (Sanskrit: *dhyāna*) finds manifestation in action and action finds its principle in contemplation. Such contemplation is what many Western pedagogy theorists overlook, not willing, or able, to admit anything higher than rational or *mediate* knowledge. Intellectual intuition, on the other hand, is *immediate* and immutable as it corresponds to an identification of the subject to the object or an assimilation of the object to the subject. At the sensible domain (Model II) we return to enactivism—a prolongation of the most exterior part of the integral individuality; “in this context it is worth recalling the Aristotelian definition of knowledge in the sensible domain as ‘the common act of perceiver and perceived,’ which in effect implies such a reciprocity of relationship” (Guénon, 1932/2004, p. 78) which must necessarily allow the subject-object duality to persist and force Plato to move beyond the senses toward metaphysical knowledge. Unfortunately, although the word “theory” is indeed etymologically synonymous with contemplation, it is nonetheless true that in current speech it has come to convey a far more restricted meaning; in a doctrine which is complete from the metaphysical point of view, theory, understood in this ordinary sense, is not self-sufficient, but is always accompanied or followed by a corresponding “realization,” of which it is, in short, but the indispensable basis, and in view of which it is ordained, as the means in view

of the end. (1925/2004, p. 13)

But it is not enough to abandon *outward* action for *inward* action as Tantric or Shaktic doctrine would consequently emphasise that inward action must “also be objectively directed towards the Absolute and subjectively free of all selfish motivation; it must *combine transcendence and immanence* ... in the ‘depths of the heart’ [emphases added]” (Schuon, 1991, pp. 35-36). In perfect inwardness “the subject [and] object transcend the created order, hence the world and the ego respectively” (p. 36). Hence the Sufic phrase “the good actions of the profane (*awwām*) are the bad actions of the sages (*‘ārifūn*)” (p. 36). Now an important link to education can be made. If a particular capacity of an individual has a tendency toward action and another toward contemplation, it is simply through their own nature; *there exists no superiority between an active aptitude and a contemplative aptitude*, since “all beings in this world, depending on their nature, are in relation *principally* [emphasis added] with one or the other, for there is a perfect correspondence between the cosmic and the human orders” (p. 37). Although some individuals may be seen closer radially to the centre (read: more depth), “no being is closer to or farther from Suchness [Emptiness]; ... Each individual being is, fully and completely, just as it is, precisely just as it is, the One and the All” (Wilber, 2000a, p. 357). Owing to a *dis*-qualified cosmos however, “the present antithesis between East and West⁴⁰² [consists] in the fact that the East upholds the superiority of contemplation over action, whereas the modern West on the contrary maintains the superiority of action over contemplation” (1927/2004, p. 36).

Pragmatism arose⁴⁰³ in such an action-oriented context whilst largely substituting *truth* for *utility*, an inevitable outcome since “pragmatism represents the outcome of all modern philosophy, and the last stage in its decline” (Guénon, 1927/2004, p. 86) and “precisely the negation of truth” (p. 57). Therefore, “*where the East can come to the help of the West [is] to recover the lost meaning of its own tradition* [emphases added]” (p. 36). One

question I posed earlier has thus been answered: the link between quantity and quality, or modern science and spirituality, is really incommensurable since we cannot achieve a greater domain (quality) from a lesser domain (quantity). Instead, we must *align* them.

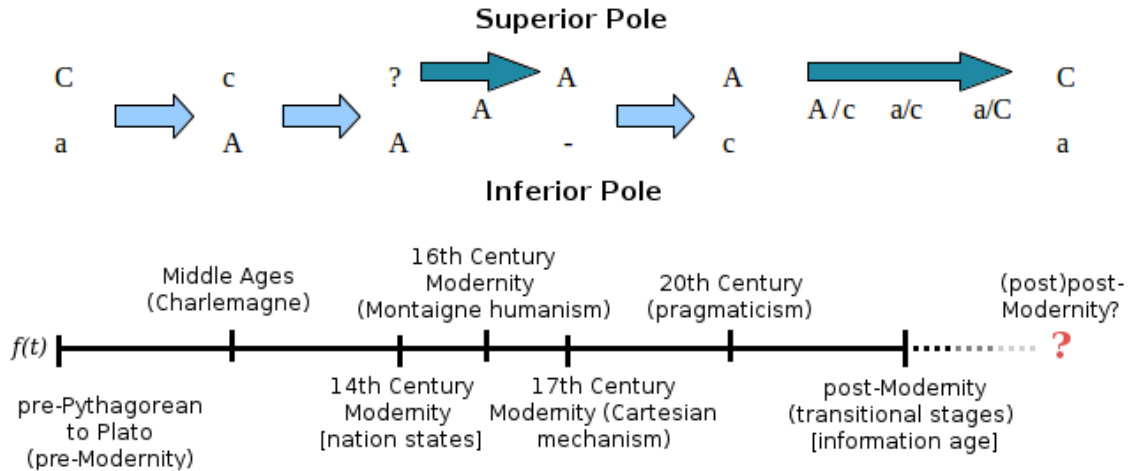


Figure 26. The Western evolution on the relationship between contemplation and action (as I conceive it). Capitalisation represents the chief emphasis placed during the time. The lower letter is subordinate to the higher letter. Instead of contemplation (C) and action (a), I could make it more general and say Quality and quantity respectively. The East (properly) places Quality as the superior pole whereas the West places quantity as the superior pole (see Figure 22). The transitional stages are marked dark blue and, especially in post-Modernism and ecological theory, there is a ‘balance’ between the two. These worldviews are the inter-subjective conditioning that give rise to science and education and education to science as co-dependent structures. And as Guénon (1925/2004) stated, “action, no matter of what sort, cannot under any circumstances liberate from action; in other words, it can only bear fruit within its own domain, which is that of human individuality” (p. 158).

In the West, a nature that lies beyond playfulness (*līlā*) takes on a sacred (Latin: *sacratum*) character,⁴⁰⁴ which is connected by no mere coincidence to *secret* (Latin: *secretum*) and *mystery* (Latin: *musterion*) which both designate *silence* and the *inexpressible*. As Guénon (1946/2004a) taught, *sacratum* and *secretum* both derive from the Latin *secernere* (“to place apart, put aside”) which discerns the sacred from the profane. Now the idea of *musterion* as something that is forbidden to disclose is actually the crudest and most outward of interpretation—but not dissimilar to the concept of the *mysterics* (Latin: *mustikos*) in Greek antiquity. A higher (or deeper) interpretation of *musterion* “designates

what must be received in silence” (p. 122) as is the case with the religious or mystical orders and even the Pythagorean initiatic order. Similarly, “mystery is strictly inexpressible, something one can only *contemplate in silence* [emphasis added]” (p. 122). Spatially, “a consecrated place is called *templum*, of which the root *tem* (found in the Greek *temno*, ‘to cut,’ ‘to cut off from,’ ‘to separate,’ from which *temenos*, ‘a sacred enclosure,’ is derived)” (p. 122). From the root *tem* is derived the word *contemplation*, emphasising its strictly inward character.⁴⁰⁵ From a different angle, the word *myth* (Greek: *μυθος*, *muthos*) from *mythology* is intersubjectively understood as *fable*. However, as Guénon points out, these are in fact opposite conceptions! What comes down to us as Greek or Roman mythology was misconstrued symbols and degenerated into fantasy. However, *fable* (Latin: *fabula*) derives from *fari* (“to speak”) while *muthos* and *myth* derive from *mu* (“silence”).

Myth, like rites, were supports to describe the indescribable and never to account for natural phenomenon. In *muthos*, thus understood, “what is said is something other than what is meant; and let us note in passing that this is also the etymological meaning of ‘allegory’ [*allo agoreuein*]” (p. 120). And finally, *mueo*, which derives from *mu*, means *to initiate* with silent instruction and proper *consecration* (“to associate with the sacred”). We then have the initiatic teaching formula of *ta drōmena* (things done), *ta legomena* (things spoken), and *ta deiknumena* (things shown) with a minor equivalence to *docere*, *delectare*, *flectere* (‘to teach, to delight, and to move’). We cannot place *faith* in *ta legomena* alone!

Contemplation (Sanskrit: *dhyāna*) has its Eastern roots, too, with close connection to *inspiration* from Daoism. Contemplation is equivalent to *Ch’an* (Mahayana Buddhism school) and *Zen* (Chinese: 禪) which is the Japanese branch of Ch’an Buddhism. To Alan Wallace (1950–present), there are four stabilisations of *dhyāna*, the first of which is nothing less than sustaining *samādhi* “for a whole night and a whole day” (2011, p. 106), an extraordinary state! The mind, in the first *dhyāna*, “is utterly controlled and settled in a state

of equipoise that is nothing like a trance” (p. 97). One such method of attaining the first *dhyāna* is Mindfulness of the breath (Sanskrit: *ānāpānasati*, *ānāpānasmṛti*) which leads to the the temporal absence (dormancy) of the five obscurations (Sanskrit: *pañca nivāraṇa*; Tibetan: *sgrib pa*) that disrupt the balance of the mind: sensual craving, malice, laxity and lethargy, excitation and anxiety, and uncertainty. Mindfulness is a cornerstone to Buddhist thought as it relates to the Eightfold Path, specifically, Right Mindfulness (Sanskrit: *sammā-sat*)—our past is a memory, our future an anticipation, and our present⁴⁰⁶ is the *eternal Now*. Most importantly, Wilber (2000) says: “in the East ‘recollection’ or *smṛiti*, ‘mindfulness’ is the beginning of virtually all paths of contemplation, the aim of which is the remembering [Ascent] that one’s true nature is Buddha-nature” (p. 339).

The Limitations of the Mental

If we are to recall to imagery Plato’s Allegory of the Cave, *theoretical* knowledge is cerebral whereas *effective* knowledge comes through *the spirit and the soul*, which implies through the whole being. Mental knowledge is *reflected* knowledge, equivalent to the shadows of Plato’s prisoners who are really prisoners of *form*; “to pass from the shadow to reality grasped directly in itself is truly to pass from the ‘outward’ to the ‘inward’” (Guénon, 1946/2004a, p. 208). Seen symbolically “based on organic correspondences, one can say that the center of consciousness must be transferred from the ‘brain’ to the ‘heart’” (p. 209). Between these two, however, lies “a veritable abyss that can only be crossed ... by renunciation of the mental” (p. 209). Saraswati (2009a) stated the evolution of intellectual sophistication developed until now, in particular in the West:

Seems now to be suspended above an *abyss*. The path continues on the other side of the chasm, [but] to continue on this path one must build a bridge. *This bridge is meditation*. Each of us have reached a certain point in our evolution, [but] at the same time our present condition and values seem to be lopsided. Something is

missing from our lives. This missing link is inner, spiritual evolution. This is the whole point of meditation [emphases added]. (p. 197)

Similarly, to Hall (2010a), “modern philosophy has failed in that it has come to regard thinking as simply an intellectual process. Materialistic thought is as hopeless a code of life as commercialism itself” (pp. 599-600). Therefore, “ancient philosophy was primarily the living of a life; secondarily, an intellectual method. He alone can become a philosopher in the highest sense who lives the philosophic life” (p. 600).⁴⁰⁷ Today, philosophy generally addresses the *unknown* which complements the Western science of what is *known* (Russell, 2004); thus, when something becomes known it passes from the realm of philosophy to science. Here we see *two unknowns* and the tendency of our times to emphasize the quantitative. Depth, or what is *essentially* unknown (immaterial) has been overshadowed and dismissed entirely for span, or what is *substantially* unknown (material). To Schuon (2001/2007), “a metaphysical doctrine is the mental incarnation of a universal truth. A philosophical system is a rational attempt to resolve certain questions we pose to ourselves. A concept is a ‘problem’ only because of a particular ignorance”⁴⁰⁸ (p. 3). To Guénon (1925/2004), a philosophical system is a *closed* conception whose limitations are determined by the *mental horizons* of an individual order. The limitations of language and philosophy can in no way free the philosopher from “extending beyond the capacity of reason” (p. 126), either by dialectic or ratiocination. Now, metaphysical knowledge:

Would not be possible if there were not in the being a faculty of the same order [intellect] and therefore transcendent with respect to the individual [reason]. *This faculty is intellectual intuition in the strict sense*. Indeed, since all knowledge is essentially an identification, it is evident that the individual as such *cannot* attain to knowledge of what lies beyond the individual domain, for this would be a contradiction; ... Any knowledge that can truly be called initiatic results from a

communication consciously established with the higher states;⁴⁰⁹ and terms such as ‘inspiration’ and ‘revelation’ clearly refer to such a communication if they are understood in their true sense [emphases added]. (p. 205)

For these reasons symbolism—as opposed to language—is well suited to represent *non-human* traditional sciences (metaphysics) to our *human* nature “which is not exclusively intellectual but which needs a sensory basis from which to rise to higher [supra-sensory] levels” (Guénon, 1962/1995, p. 13). While all language is a symbol, not all symbols are confined to a language, and this is particular evident considering the role symbolism plays to *suggest* the inexpressible. They do co-exist, however, as one can see in traditional ideograms of China. As an aside, I find it interesting that the very meaning of 中 in China (中国) is *Middle or Centre*. Symbols, in their non-human aspect “bear in themselves an influence the action of which can directly awaken the intuitive faculty in those who meditate on them in the right way” (Guénon, 1946/2004a, p. 207). Guénon adds, by reason of correspondences, our world is like “a divine language to those who can understand it; according to the biblical expression, *Coeli enarrant gloriam Dei* (Ps. 19:2) [The heavens proclaim the glory of God]” (p. 127). The symbols themselves, due to their non-human origin, necessarily “extends beyond humanity, one can say that this origin lies in the very Divine Word. It is first of all in universal manifestation itself, and then, with respect more especially to humanity, in the primordial tradition” (p. 127). Therefore, the “origin of symbolism is truly identical with the origin of time, if it does not in a sense even lie beyond time, since in reality this comprises only one particular mode of manifestation [*duration*]” (p. 128). Thus:

In the most favorable light, philosophy is thus “human wisdom” ... an altogether rational speculation grounded in a purely human faculty, that by which individual human nature is essentially defined. To say “human wisdom” is to say “worldly wisdom,” in the sense in which “world” is used in the Gospels; we could as well say

“profane wisdom,” for all these expressions are basically synonymous and indicate clearly that what is involved is not true wisdom but at most only its somewhat *ineffectual shadow* [emphasis added]. (p. 129)

Etymologically, *tradition* is nothing other than *transmission*⁴¹⁰—one reason why qualitative education emphasised *oral* over *written* in *communicating Truth*. Symbolist education⁴¹¹ or initiatic teaching, as a corollary, is not the antithesis or prolongation of modern education either as each operate on different domains (otherwise we have a *heterarchy*). Since the symbol must always be of an inferior order to what it symbolises, naturalism becomes insufficient unto herself—except as a symbol, since “the corporeal domain, being of the lowest and most narrowly-delimited order, thus cannot be symbolized by anything at all; and [Nature has] moreover no need of being symbolized since [Nature is] directly and immediately comprehensible to everyone” (Guénon, 1946/2004a, p. 167). Moreover, tradition also depends on rites, where rites and symbols are two sides of the same coin. A characteristic feature of a rite denotes *order* (Sanskrit: *rita*) whose purpose is “to put the human being in contact, directly or indirectly,⁴¹² with something that goes beyond his individuality and which belongs to other states of existence” (p. 104). By “sophisticating” toward quantity, our world has replaced the *qualified guru* for the *quantified teacher*. One can now gain a greater perspective on the *quantitative civilisation* we exist in today, whose foundation is entirely human and material in correspondence to a qualitative determination in time. So the crises of modernity and post-Modernity are not a lack of modern, *intellectual* rigour—but a *lack of intelligence from the loss of that mysterial dimension*.

The Limitations of the Mathematical or Quantitative Order

Albert Einstein (1879–1955) once stated that *as far as the laws of mathematics refer to reality, they are not certain, and as far as they are certain, they do not refer to reality*; let us examine this mathematical issue metaphysically, which concerns itself with the Infinite or

the principles of the Universal. Due to an abuse in language, we come to think of the Infinite as a notion within mathematical sciences. However, the “Infinite is properly that which has no limits, for ‘finite’ is obviously synonymous with ‘limited’; one cannot then correctly apply this term to anything other than that which has absolutely no limits, that is to say the universal All [*the One, Tao, God*]” (Guénon, 1946/2004b, p. 7). The *Tao* contains in itself all possibilities and is hence synonymous with Universal Possibility, comprising possibilities of both manifestation (Being) and non-manifestation (Non-Being). If the *Tao* was solely limited to manifestation (*ontology*), even in supraformal orders of manifestation, it would cease to be *Tao* since the totality of manifestation “excludes everything unconditioned, that is, precisely what matters most from the metaphysical point of view” (Guénon, 1932/2004, p. 16). Also, if we define our world of temporal-spatial possibilities as all that exists—and to many atheists, myself at one point, this is a presumed axiom with no admittance of soul or spirit—then the universe would have to be infinitely big, allowing no non-spatial possibilities, including our own thought (*mind-in-brain error*)! However, such is not the case and the Being comprises in itself Universal Existence including all those states whose conditions are not our own. For our corporeal⁴¹³ modality, the five conditions “to which corporeal existence is subject are space, time, matter, form, and life” (Guénon, 1976/2004, p. 90) and in a single definition: “a body is ‘a material form living in time and space’; let us add that when we use the expression ‘physical world,’ it is always as a synonym of ‘domain of corporeal manifestation’” (pp. 90-91) whereas to ancients, *physis* pertained to manifestation *in toto*.

Thus we have Non-Being which envelops Being, since Being itself does not enter into its own manifestation as anterior Unity. And duality or any multiplicity never proceeds from Unity for the simple fact that it is not a prolongation which would imply an existence—that is, any possibility of manifestation that has been *realised*—outside of Unity. Multiplicity

is within primordial Unity and forever contained therein as Unity “cannot in any way be affected or modified by the existence of this multiplicity in itself” (Guénon, 1932/2004, p. 33). Thus our spiritual journey from *dvaita* to *advaita* recognises that spirit—for it would be a mistake to say *our spirit* as spirit is never individualised or localised—is not in our body (*span-orientation*), but our body is in our spirit, since “the ‘lesser’ cannot contain the ‘greater’, any more than it can produce it” (Guénon, 1952/2004, p. 152). Such a *reversal* is really a *rectification* from a consciousness limited to individuality whose reality derives from span orientation; however, “by the ‘reversal’ so effected [*conversion*], the true relationships among things are re-established, such as they never ceased to be for the principal being” (p. 158). Thus, the Infinite as understood as comprising Universal Possibility of both Being and Non-Being “*is metaphysically and logically necessary*, for not only does it not imply any contradiction, not enclosing within itself anything negative, *but it is on the contrary its negation that would be contradictory*”⁴¹⁴ (pp. 7-8).

True Infinity is entirely qualitative and completely escapes the quantitative order which is *determined*, thereby *limited*, being only a special mode of reality, and represented numerically by the set \mathbb{N} or *pure number* and \mathbb{R} or *continuous number*. For the pre-Socratic Greeks, the *limitless* or *unlimited* was defined as *aperion* (Greek: ἄπειρον, “absence of limits”) from the word *peirar* (Greek: πεῖραρ, “limit, end”). In Westernised notation (read: convention), infinity corresponds to a *symbol*, not a *number*—specifically ∞ which is identified (poorly) with the mystical *Ouroboros*. It would seem that modern mathematicians “have become ignorant of what number truly is, for they reduce their entire science to calculation [collection of processes] ... [and] they replace the number with the numeral” (Guénon, 1952/2004, p. 63). A numeral is “the clothing of a number; we do not even say its body, for it is rather the geometric form that in certain respects, can legitimately be considered to constitute the true body of a number” (p. 64). One of the illogicalities—in the

branch of mathematical logic no less—is the symbol of infinity; the infinite, represented by ∞ , is itself “a closed figure, therefore visibly finite, just like the circle, which some people have wished to make the symbol of eternity [but] can only be a representation of a temporal cycle, indefinite merely in its order [perpetuity]” (p. 65). The confusion between eternity and perpetuity is akin to mistaking the Infinite with the indefinite, for a quantitative infinite is a contradiction by way of the principle of formation.⁴¹⁵ We have stumbled upon another cup:

$$\{\text{infinite}\} \rightarrow \{\text{infinite indefinite, Infinite}\}$$

Whereas the finite presupposes the Infinite, the indefinite proceeds from the finite; therefore it is limited; thus the set $\{\mathbb{N}\}$ is indefinite. The indefinite will always imply a “determination, whether it is a question of extension, duration, divisibility, or some other [analytical] possibility” (p. 12). The set of \mathbb{Z} , which tends to go on “without limit” in the positive and negative direction it is merely an illusion:

It is precisely this impossibility of reaching the limits of certain things, *and sometimes even of conceiving of them clearly*, that causes the illusion that these things have no limits ... [W]e must here introduce the idea of the *indefinite*, which is precisely the idea of a development of possibilities the limits of which we cannot actually reach. ... Without doubt this is what corresponds ... to the Scholastic distinction between the *infinitum absolutum* and the *infinitum secundum quid*. It is certainly unfortunate that Leibnitz, who had borrowed so much from Scholasticism, had neglected or not been aware of this [emphases added]. (p. 11)

In the mathematical order from a quantitative lens, the midpoint between *infinitely big* $\{\infty\}$ and *infinitely small* $\{-\infty\}$ is the “number” zero. Zero, then, represents equilibrium where two *vectors* or forces *balance* one another. Therefore, co-efficients a and b are equal as regards the absolute values for each force so that $af = bf \Rightarrow f - f' = 0$ which is the equation for the condition(s) of equilibrium. Guénon insisted, however, that they do not form an

equilibrium, nor do they cancel each other out, as suppressing force f will allow force f' to immediately act! Therefore, “the true notion of equilibrium is something else altogether” (p. 97) for two reasons: first, two forces in equilibrium do not create a *cancellation* but a *neutralisation*, and second, zero, thus defined quantitatively as a midpoint between the positive and negative numbers, represents “a sort of symbol for nothingness ... *as if nothingness could really be symbolized by anything whatsoever*—the result seems to be *that equilibrium is the state of non-existence*, which is a rather strange consequence [emphases added]” (p. 97)! This notion of equilibrium relates latter to Mindfulness in Chapter Four: Reconstructing Education.

In the mathematical order from a Pythagorean lens, it is the *unit* that establishes *equilibrium* at the centre of two indefinites: that of indefinite increase $\{n : n > 0, \forall n \in \mathbb{N}\}$ and that of indefinite decrease $\{1/n : n > 0, \forall n \in \mathbb{N}\}$ since $(n)(1/n) = 1$. The unit, moreover, *contains all numbers principally* and this is why the set of whole numbers \mathbb{N} starts at the unit and not zero,⁴¹⁶ since no number derives⁴¹⁷ from zero. For similar reasons, the set comprising positive and negative numbers \mathbb{Z} is not taken into consideration for numbers can never represent *less than nothing* which is no more a possibility then taking more from what naturally exists (empty convention). Negative numbers properly represents *magnitude* which belongs to a qualitative order as well as to a different quantitative order, specifically *continuous* quantity. Thus, equilibrium will “no longer be defined by zero, but by the unit” (p. 98), usurped by “the artificial sequence of positive and negative numbers” (p. 99). In modern mathematics, *there exists no symbol for indefinite decrease!* Currently, albeit *improperly*, it is symbolised as *null* or *zero*. It cannot be either since a quantity, even one that is indefinitely small, cannot be zero since *zero* is not a number but strictly *absent quantity*. Should zero be taken as a symbol of indefinite decrease, it would be *nihila respectiva* (*nothingness in some respect*), not *nihila absoluta* (*absolute nothingness*).

There are ramifications beyond such formalities or conventions; first, the difference between the symbolic *number one* as the synthetic containment of all numbers versus a quantitative integer or *numeral one*, is very much a reflection of the reign of quantity that pervades our current worldview of *separability*. Even if we were to adopt the ecological premise—one that I held myself⁴¹⁸—that Gaia is *one* living organism that we exist in as a strand in the web-of-life, it is still a span-oriented worldview. On matters of religion, we come to conceive of the *one True God* quantitatively—which is perhaps why many have grown up with a personal God that begets antagonism. Second, Being or Unity is represented mathematically by the *qualitative* unit. Therefore, “by analogous transposition, all the indefinite multiplicity of the possibilities of manifestation is contained, ‘eminently’ and in principle, within pure Being, or the metaphysical Unit” (p. 90). Similar to an unchanging Self, the unit, thus defined, is *fixed* (or in *stasis* which is metaphysical more rigorous). Such a *point* (*Chung Yung*) caters to the definition of equilibrium, which, when disturbed in any way, “immediately tends to re-establish itself, whence a reaction of which the intensity is equivalent to that of the action that provoked it” (p. 96). Here we see a resemblance to Isaac Newton’s Third Law of Motion, specifically, the *principle of the equality of action and reaction* which, according to Guénon, is not a true principle at all:

It is immediately deduced from the general law of the equilibrium of natural forces⁴¹⁹: ... a simple, particular case of what the Far-Eastern [Doaist] tradition calls ‘concordant actions and reactions’, a principle that does not concern the corporeal world alone, as do the laws of mechanics, but indeed the totality of manifestation in all its modes and states. (p. 96)

In order to contextualise equilibrium from a Buddhist or Daoist perspective, we need to revisit the two vectors or forces f and f' with their co-efficients a and b respectively. These two forces are either attractive or repulsive; “the first can be considered as compressive

forces, or forces of contraction, and the second as expansive forces, or forces of dilation, and basically this is no more than an expression ... *of the fundamental cosmic duality itself* [emphasis added]” (p. 97). Hermetically, this is the Law of Polarity. In equilibrium, “the forces can be characterized by coefficients proportional to the contraction or dilation they produce” (p. 98). When the compression and dilation forces are in equilibrium, such that neither are produced, “the ratio is necessarily equal to one, since the density of the space is unchanged; ... *the coefficient of this resultant is the product, and not, as in the ordinary conception, the sum of the coefficients* of the two forces [emphases added]” (p. 98). Mathematically, $a > 1$ and $b < 1$ will represent the compressive and expansive force respectively and we end up with $af = bf' \Rightarrow a = 1/b \Rightarrow (a)(b) = 1$ which is precisely the condition for equilibrium. Metaphysically, Being is equilibrium, which corrects most Model II prejudices (*metaphysis-in-physis*) who understand it in a Modern context and replaces it with *far-from-equilibrium*—which is true in the realm of *becoming*:

Far from being the state of non-existence, *equilibrium is on the contrary existence considered in and of itself*, independent of its secondary, multiple manifestations; moreover, it is certainly not Non-Being, in the metaphysical sense of the word, for existence, even in this primordial and undifferentiated state [Unity], is still the point of departure for all differentiated manifestations, just as the unit is the point of departure for the multiplicity of numbers. ... [What] the Far-Eastern tradition calls the “*Invariable Middle*” [where] *this equilibrium or harmony is the reflection of the “Activity of Heaven” at the center of each state* [emphases added]. (p. 99)

The Invariable Middle has as its equivalent the Middle Path in Buddhism. In reference to Non-Being—which is confirmed by the existence of Being, since manifestation derives itself from non-manifestation—its symbol is *zero*; by analogical transposition the *symbol zero* represents an absence of quantity, however, “to avoid all confusion between the

symbol and that which it represents, ... the metaphysical Zero, which is Non-Being, is no more the zero of quantity than the metaphysical Unit, which is Being, is the arithmetical unit” (p. 87). Now we may contextualise the Buddha’s words:

Upon the basis of an ethical lifestyle,⁴²⁰ the [Middle] path continues with right effort, right mindfulness, and right concentration. With persevering effort to abandon harmful thoughts, words, and deeds while developing beneficial ones, along with cultivation of the four close applications of mindfulness and development of samādhi, the mind becomes balanced and healthy—a wellspring of happiness and fulfillment. ... It is very good if a psychiatrist finds we don’t need therapy, but the path of Dharma leads to Olympic-class mental balance, resilience, buoyancy, and suppleness. Upon this basis, as the Buddha stated, “The mind established in equilibrium comes to know reality as it is” [emphases added]. (Wallace, 2011, p. 15)

Third, and perhaps most importantly, “*the word ‘indefinite’ always carries with it the idea of ‘becoming’, and consequently of change [emphasis added]*” (p. 38). Here we can contextualise modern *agnosticism* since there are things that can only be known synthetically so that analysis must inevitably declare things to be *unknowable (agnosis)* which is really *not knowing* (Sanskrit: *avidyā*; Pali: *avijjā*; Tibetan: *ma rigpa*; English: *ignorance*). Quantitatively, there is no *final term* or *final destination* which is contradictory and incomprehensible, but qualitatively, transcendence is “situated outside of and beyond that development” (p. 116) much like a fixed limit⁴²¹ is to its domain of variation represented by the *epsilon* ($\epsilon > 0$). Thus, it is not the *analytical* operation that the *passage to the limit (calculus)* or *passage beyond form (transformation)* is effectuated, but the *synthetic* operation that “simultaneously embraces each element of the sum to be calculated, preserving the ‘indistinction’ appropriate to the parts of a continuum, since, by the very nature of continuity, these parts cannot be fixed and determined things” (p. 115). Thus, in the

spiritual order, a *transformation* implies a discontinuity since *Ātmā*, being immutable, “is not a question of ‘effectuating’ something that did not exist before, but rather of effectively taking cognizance, in a permanent and absolute manner, of that which is” (p. 117).

Metaphysical realisation, then, does not occur from the summation or collection of parts (*span*), but through the synthesis of *depth* since Being and Knowledge are the two sides of the same coin. So the modern West may be far *beyond* in knowledge—if we limit knowledge to profane concepts—but far *behind* in Being: a true disequilibrium!

If we limit ourselves to the mental, then any whole as “the sum or result of its parts and which consequently is *logically posterior* [emphasis added] to them, is, as such, nothing other than an *ens rationis* [a being of reason or of the mind]” (p. 23) since “it is ‘one’ and ‘whole’ only in the measure that we conceive it as such; ... On the contrary, a true whole possessing this character by its very nature, must be *logically anterior* to its parts and *independent* of them [emphases added]” (p. 23). Seventy years later we have only caught up scientifically to his insights that established a Model II, systems-oriented perspective (*res cogitans*) whose forerunner is enactivism. By taking the numeral for the Pythagorean number, we mistake the shadow for reality—like the prisoners of Plato’s cave.

Creationism and Evolutionism: Some Thoughts

The great Daskalos, a Cypriot Christian initiate, stated in *The Symbol of Life*, “The theory of Charles Darwin cannot satisfy serious seekers of the Truth” (n.d., p. 46) and that “the only reliable source of information is the Cosmic Consciousness [Divine Memory] ... on everything” (p. 48). Even today, genuine “seekers of the Truth, can contact the Cosmic Consciousness—the Mind of God?—by unfolding in themselves the Self-superconsciousness ... [which reveals] everything which had happened on the material plane of the planet [and] is recorded with the greatest accuracy” (p. 48). Many of the Biblical verses are statements derived from this plane of consciousness. As Saraswati (2009a) stated,

Eastern evolution is not “Darwinian evolution, which can be regarded as horizontal evolution in a historical sense. We mean evolution in a vertical, transcendental sense, where life, objects, etc. arise from the underlying substratum” (p. 713). Scientific evolution “is in the realm of time; the evolution we are referring to is in the realm of the *timeless* [emphasis added]. There is an individuating principle that generates the myriads of objects in the universe. In Sanskrit it is called *kala*”⁴²² (p. 713) which is closely connected to bindu⁴²³ and called hiranagarbha, the *womb of creation*.

Horizontal Antagonism

Creationism versus Darwinism is a delicate subject; it resembles a battle royale between (dogmatic) scientific atheism (or secularism) and dogmatic religion; therefore, the argument has reduced the topic down to *horizontal contraries*. Choose one and dismiss the other entirely. These two concepts have reached a status of the lowest order of reality. Unfortunately, “to a great extent, science does not acknowledge its most serious flaw—the crumbling foundations of metaphysical realism [the study of nature as it exists independently of the human mind] and scientific materialism that support its vast edifice” (Wallace, 2011, p. 16). Such an approach should *not* be considered sacrosanct and the Buddhist view “considers the external approach to understanding reality to be of distinctly secondary importance” (p. 17). However, no one can deny the success of science, and I personally love (the *new*) science, but only since I know its limitations and contexts within contexts.

Religion	Science
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These two ultimately irreducible contraries seem to be incapable of deriving from a common principle. No other evidence is really needed because in our culture, to even dare mention theories that trump or rebuke Darwinism (or dogmatic science), is to immediately become labeled and verbally attacked as an anthropomorphic Creationist ... simply because

in that order of reality no other option exists! Secular education, however, gets around the issue by simply being “neutral” which is really never the case. The horizontal polarisation is further entrenched from scientific atheists whose popularisation aim to rectify quality as a derivative of quantity.⁴²⁴ If this were the case, it would entail, to give but one example, that religion and spirituality are nothing more than materially-oriented speculations! Many such materialists and naturalists themselves cannot posit mind in the very universe they think about, nor posit soul (subtle order), spirit (causal order), or Spirit (nondual) for that “matter.” Such spiritual *ideals* are posited *away* to fit theories of materialism—the dominant intellectual current of the 20th century. As Beauregard and O’Leary (2008) state, many (scientific) thinkers today “see the primary purpose of science as providing evidence for materialist beliefs. They reject with hostility any scientific evidence that challenges such beliefs. ... Every year, thousands of books are published, in dozens of disciplines, advancing materialist views” (p. 3). What is perhaps most remarkable is the sense of finality ... answering a question that has captured the interest through intellectual intuition and *Yoga* of the greatest *non-anthropomorphic* initiates and mystics for millennium.⁴²⁵ To Guénon:

There can be nothing but antagonism between the religious spirit, in the true sense of the word, and the modern mentality, and any compromise *is bound to weaken the former and favor the latter*, whose hostility moreover will not be placated thereby, since it can only aim at the utter destruction of everything that reflects in mankind a reality higher than the human. The modern West is said to be Christian, but this is untrue: *the modern outlook is anti-Christian*, because it is essentially anti-religious; and it is anti-religious because, still more generally, it is anti-traditional; this is its distinguishing characteristic [emphases added]. (1927/2004, p. 95)

Naturally, religious discernment coupled with scientific discernment is ideal.

Similarly, “another point that moderns do not grasp, is that there is no reason for necessarily

seeking the cause of a phenomenon on the plane where it is produced, and that on the contrary one has to consider the possibility of a non-material cause” (Shuon, 1991, p. 19). Thus, “transformist evolutionism is ... the bias that invents ‘horizontal’ causes because one does not wish to admit a ‘vertical’ dimension: one seeks to extort from the physical plane a cause that it cannot furnish and that is necessarily situated above matter” (p. 20). Regarding creation theories and the ontological reality of the world, Sri Ramana Maharshi (1985) “was known to have views which were totally at variance with the common-sense view of the world, [tailoring] his statements to conform to [three] different levels of understanding he encountered in his questioners” (p. 181). His chief emphasis was on realising the Self which led to these *descending* standpoints: *ajata vada* (the theory of non-causality), *drishti-srishti vada* (the theory of simultaneous creation), and *srishti-drishti vada* (gradual creation of the modern West). *Ajata vada* declared that in the experience of a *jñāni* (someone with Knowledge or *jñāna*), “nothing ever comes into existence or ceases to be because the Self alone exists as the sole unchanging reality” (p. 181). Therefore, “time, space, cause and effect, essential components of all creation theories, exist only in the minds of *ajñāni* and that the experience of the Self reveals their non-existence” (p. 182). The *jñāni* is “aware that the world is real, not as an assemblage of interacting matter and energy, but as an uncaused appearance in the Self. ... The real nature or substratum of this appear is identical with the beingness of the Self” (p. 182). The world “is not real to the *jñāni* simply because it appears, but only because the real nature of the appearance is inseparable from the Self. The *ajñāni*, on the other hand, is totally unaware of the unitary nature and source of the world” (p. 182).

Drishti-srishti vada was a working hypothesis toward *ajata vada*, where “the world came into existence simultaneously with the appearance of the ‘I’-thought and that it ceases to exist when the ‘I’-thought is absent” (p. 182). Such a “world which appears to an *ajñāni* is a product of the mind [*ens rationis*] that perceives it, and that in the absence of that mind it

ceases to exist” (p. 182). Therefore, a mind that creates an imaginary world for itself, from the standpoint of the Self, sees an “imaginary ‘I’ creating an imaginary world [which] is no creation at all, and so the *doctrine of ajata* is not subverted. (p. 182). I suppose to Sri Ramana Maharshi, the less said about the last the better, as it did not bring the spiritual seeker to the unchanging Self. However, without the plate {evolution, involution}, one has a hard time appreciating involuntary theories—especially when they are never taught!⁴²⁶ Wilber concluded, “the involutory theories—from Plotinus to Hegel, from Asanga to Aurobindo, from Schelling to Shankara ... are all attempts to take into account that the depths of the higher structural potentials are already present but not seen” (p. 661). Therefore, “The passion of the Western mind (and the Eastern mind as well) is not to recover what was prior in evolution, but rather what is prior to evolution [prior in involution]” (p. 787). Therefore, in a true Kuhnian paradigm of knowledge:

The mystics of the world are in virtually unanimous and unyielding agreement ... on the basis of their experiential evidence disclosed and discussed in a community of intersubjective interpreters. It is the only interpretation that makes sense of the mystical experience: *a Kosmic depth disclosed, not an individual subjective fantasy conjured up*⁴²⁷ [emphasis added]. (p. 662)

Darwinian Evolution

It is not *one happy picture* archaeologically either. Archaeologists and paleoanthropologists are also divided amongst themselves. The Bering Strait issue is just one such dilemma as Caucasian bones found in North America predate their supposed migration period (Cremo & Thompson, 1996). As to the dating of *homo sapien sapiens* we have a rather interesting statement from Hall (2010a) regarding the zodiac, stating that humanity is not counted in the hundreds of thousands ... but the tens of millions!⁴²⁸ The Vedic cosmology of Hinduism also posit human beings into extreme antiquity. Michael A. Cremo

and Richard L. Thompson (1996), under the encouragement of His Divine Grace, A. C. Bhaktivedanta Swami Prabhupāda, set about to investigate the disparities between Western science and Vedic literature regarding human antiquity. They evidence—900 pages in (exceedingly dry) detail—50 cases that corroborate directly with Hall, falling within the time frame of tens of millions of years (pp. 815-828). They also catalogue 146 cases that go beyond accepted scientific literature.⁴²⁹ The premise behind the loss of such important documentation stems from a *knowledge filter based on a predisposed (read: dogmatic) acceptance and rejection of data to fit a model.*⁴³⁰ The ideal that science is the sole authority and there exists no tensions between scientists at the highest levels of speculation is one of the greatest lies we propagate in educating our students. Now, “this process of knowledge filtration *has been going on for well over a century* [emphasis added] and continues right up to the present day” (p. xxxi) to the detriment of distinguished academic careers who often formulated new interpretations in light of new evidence. To me, scientific beliefs are etched in stone deeper than the Commandments of Moses! Dogma is dogma everywhere, the science we teach in school included. As *contraries*, an interesting philosophical conception of *panatheism*⁴³¹ has emerged but metaphysically, perhaps we can see such contraries resolved if we apply *hierarchisation*.

Creationism
Evolutionism

As Guénon stated, religion and science as easily shown not to be in conflict since “they do not concern the same domain. Why is there no perception of the danger of even seeming to seek corroboration, in what is most changeable and most uncertain, for doctrine that concerns immutable and unchangeable truths?” (p. 6). Now in Genesis (1:1-2), etymologically derived from Greek, *γένεσις* (“origin, source, beginning, nativity, generation, production, creation”) we find the words:

In the beginning, God created the heavens and the earth. The earth was without form and void, and darkness was over the face of the deep. And the Spirit of God was hovering over the face of the water. ESV translation

First, the commonplace phrase “In the beginning” is likely a mistranslation from Hebrew. If we take the *Biblia Sacra Vulgata* Latin translation (late 4th century), it reads:

In principio creavit Deus cælum et terram.

Metaphysically, *In principio* (“In principal”) is exact and superior to “In the beginning” which denoted *time* and inevitably conjures up the idea of a beginning in the realm of *physis*. But metaphysics is both beyond time and beyond space and therefore timeless, with *no beginning and no end*. The idea that posits Creationism and the Big Bang as hypotheses to how it all began ... may be an entirely wrong perspective as Creationism never denoted a starting point, thus, Creation (Being), like evolution (becoming), are both happening now! Nonetheless, evolutionary tendencies sever themselves from the vertical and superior cause, so as to reject the phrase *creatio ex nihilo*—but as Schuon (2007) stated adamantly: *one must not tire of the phrase and of affirming it*, for the origin is necessarily a nonmaterial archetype which is perfect and without need of any transformist evolution. But esoterically, *ex nihilo nihil, ad nihilum nil posse reverti* (Nothing comes from nothing; nothing can revert to nothing) so that “creation *ex nihilo* would be to acknowledge *ipso facto* the final annihilation of created beings, for what has a beginning must also have an end; and nothing is more illogical than to speak of immortality under such a hypothesis” (Guénon, 1976/2004, p. 5) or to assume Non-Being is pure nothingness.

The Buddhist sage Nāgārjuna’s (ca. 150–250) concerning the Wisdom of the Middle Way or *Mūlamadhyamakakārikā* (Garfield, 1995) dialectically refutes becoming as contradictory, *a reductio ad absurdum* when becoming is in absence of Being. In Buddhism there exists what is called “‘double truth,’ ... one relative and conventional, the other absolute and certain, correspond to the distinction of metaphysics from [profane]

‘philosophy’” (Coomarswamy, 1947, p. 42). Similarly Plato, in his *Phaedrus*, makes the distinction (but not separation: *abhedābheda*) of “that which is absolutely real, and distinction of ‘true opinion’ from ‘truth,’ parallel to that of *becoming from being* [emphasis added]” (p. 42) disclosed in his *Timæus*. And in Hermeticism, a precursor to Platonism:

All things on earth are overtaken by destruction (*φθορά*); for without destruction there can be no origination (*γένεσις*). The things that come into being must needs arise from those that are destroyed; and those that come into being must be destroyed, if origination (or “becoming”) is to go on. But the things that come into being out of destruction must be false (*ψεῦδος*). (p. 81)

For a Western (Grecian) example we have *reductio ad infinitum* the unmoved mover of Aristotle. In the temporal order all things are generated and destroyed while things eternal (*τὰ δ’ ἀϊδία*) are ungenerated and indestructible, without beginning or end. Furthermore, “the word, Eternity (*αἰών*), itself means ‘ever-being’ (*ἀεὶ ὄν*)” (p. 85). “Things not in time are impassible (*οὐδὲ πάσχει*), change being impossible in that which has no parts” (p. 73). Note here the spiritual degeneration: impassibility (*apatheia*) is not *apathy* as it is “superior to the pulls of pleasure and pain” (2007, p. 7). Finally, to place Mindfulness and the Middle Way in context, “becoming is inseparable from its opposite, destruction (*τὸ φθείρεσθαι*), and both of these conditions *are other than that third (Middle) and contemplative life* in which there is neither *greed* nor *grief* [emphases added]” (Coomaraswamy, 1947, p. 73). Therefore, “the truest knowledge (*γνώσις, jñāna*) is of that which is, and really is, and that is ever natured in accordance with itself (*κατὰ ταῦτόν ἀεὶ πεφωκός* = *svayambhū*, in later Gk. *Αὐτογενής*)” (p. 73). However, the scientists and “the technologists *are not, as they imagine, students of this Nature* (*φύσις*); what they spend their lives in the investigation of is the things of this world [*temporalia*]” (p. 73). The Sanskrit word *jñāna* “has the selfsame root as the Greek *Γνώσις*, which it also shares with the Latin *co-gnoscere*; it expresses an idea of

‘production’ or ‘generation’ because the being ‘becomes’ whatever it knows and realizes itself through that knowledge” (Guénon, 1925/2004, p. 68). The symbolic representation of *germ* is significant here which comprises all the qualitative complexity in itself at the start as opposed to a modern complexity which arises in “greater number” in evolutionary processes. Again, my point is not to prioritise one view at the exclusion of the other (too much *yang* or *yin*), I merely describe pre-Modern strengths lost in post-Modernity and an educational model would accommodate (and properly allocate) both.

Natural Selection Versus Natural Drift

Simply stated, “Neo-Darwinism is to modern evolutionary theory what cognitivism is to [modern] cognitive science” (Varela et al., 1993, p. 185). Similarly, “evolution as natural drift is the biological counterpart of cognition as embodied action” (p. 188). However, the theory of natural selection and Mendelian inheritance (“genetics”⁴³²), the synthesis of which produced the school of Neo-Darwinism, remains today the “established theory of evolution in biology departments around the world” (p. 224). The central tenet of Neo-Darwinism: a common ancestry for all subsequent emergences of life forms through mutation, variation, and selection (*scientific evolution*) remains despite *no proof of macro-evolution of a species existing!* Similarly, reading teachings from Ouspensky⁴³³ on Gurdjieff, who defined moderns as mindless machines—endowed with the human possibility of self-consciousness which can be developed, refined (through Mindfulness), and transcended by objective consciousness, but mistaken as a foregone conclusion which defaults us below self-consciousness—one cannot help but feel we are *unfolding gods* and not (only, if ever) *evolving apes*:

“The evolution of man,” G. replied, “can be taken as the development in him of those powers and possibilities which never develop by themselves, that is, mechanically. Only this kind of development, only this kind of growth, marks the real evolution⁴³⁴ of man.” (p. 56)

Scientifically, the simplistic view is that we enter (parachute) into a pre-given world that is fixed and unchanging. In the last two centuries the idea has been extremely refined in that the environment is changing which allows selective pressures to influence organisms. A further refinement comes from natural drift where “selective pressures [are recast] as broad constraints to be satisfied” (Varela et al., 1993, p. 198). Thus there is no organism without an environment and vice versa as both relate through mutual specification or codetermination. Thus, “environmental regularities are not external features that have been internalized, as representationism and adaptationism both assume. Environmental regularities are the result of a conjoint history, a congruence that unfolds from a long history of codetermination” (pp. 198-199). Thus organism-environment are mutually unfolded and enfolded structures so that a nonadaptationist⁴³⁵ evolutionary view does not separate the two with some proportion between them (i.e., nature/nurture, innate/acquired, and so on). Pleiotropy provides, perhaps, unsurmountable difficulties for adaptationism: “how can a gene be selectively optimized if it has multiple effects, which need not increase fitness in the same manner or even in the same direction?” (p. 189). Another point against adaptationism is the central theme of randomness (genetic drift). The point is not that science is a hopeless task, but that we may be on an expanding cup, and what we need is not more refinements, but a different model altogether; therefore, there are “reasons to ask whether the very program of studying evolution as train fitness optimization is not fundamentally flawed” (p. 189). Philosophically, natural drift not only shows us that “intelligence shifts from being the capacity to solve a problem to the capacity to enter into a shared world of significance” (p. 207) but also changes explanatory concepts and metaphors. For instance, what is currently *prescriptive* should be *proscriptive*, “that is, from the idea that what is not allowed is forbidden to the idea that what is not forbidden is allowed. In the context of evolution this shift means that we remove selection as a prescriptive process that guides and instructs in the task of improving fitness” (p. 195).⁴³⁶

CHAPTER FOUR: RECONSTRUCTING EDUCATION

Teaching is the noblest profession—if it can be called a profession at all. It is an art that requires, not just intellectual attainments, but infinite patience and love.

— Jiddu Krishnamurti

Science is legitimate as long as it keeps to the place that belongs to it by virtue of its own nature, [though] it is nevertheless easy to understand that knowledge of a lower order, for anyone who possesses knowledge of a higher order, is bound to lose much of its interest.

— René Guénon

With careful training, practice, concentration, meditation, visualisation, and continuous observation, one can be sure that one can see ... the Real Light.

— Daskalos, Cypriot Christian adept

It is no measure of health to be well adjusted to a profoundly sick society.

— Jiddu Krishnamurti

Therefore if we lose the forests, we lose our only instructors. And people must see these forests and wilderness as the greatest educational system that we have on the planet. If we lose all the universities we lose nothing. If we lose all the forests, we lose everything

— Bill Mollison

I hope I have given the reader sufficient clarity to contextualise our modern educational crises and predicaments; now we can *ravel* up the various ideas and move from *analysis* ('loosen, unravel') to *synhistanai* ('to place together'). These (w)holistic systems cannot be regarded solely in terms of the student (*false holism, phantasmagoria*) but must take into consideration that our world (*loka*) plays an important intersubjective and interobjective factor to our situated knowledge (*relationships, contexts, Figure 19*). Since the *whole is more than the sum of its parts (emergence)*, we must take into consideration the *ecological equation of education* to avoid *tunnel vision*. Similarly, we must jump to Model II to recognise *order-in-chaos (permaculture)* and avoid the *mechanisation process*. In Model II, one sees for the first time the interrelationship between the student and the environment (*learning system*), recognising their mutual co-ordination, so that one must continually undergo *deconstruction (hermeneutic, 3rd-order interpretation)* in order to contextualise (*cups → plates*) our *phenomenal* existence. Moreover, our belief system and internal self-consistency should grow together in a mindful, participatory manner

(*open-mindedness*). Furthermore, a *systemic* (Figure 6) perspective favours *ecological education* over a *systematic* framework of *mechanical schooling*, which has developed an *average curriculum for an average student that does not even exist*—all in the name of *uniformity* and *pseudo-predictive statistics*. A systematic school has created numerous human crises as by-products of the framework itself, and has furthermore, by its *existence*, undergone a *linear bootstrap process* to rectify the situation (*reductive gears*). Therefore, in order to implicate *uniformity* with *diversity*, we must necessarily adopt a higher order of *complexity*—mainly, to shift from *linearity* to *non-linearity*⁴³⁷ and *physics* to *biology*⁴³⁸ (and *psychology*). Finally, the abuse of the Earth is the environmental crisis (Shiva, 1997), which is further linked to a *crisis in education* (Orr, 2005). As I have posited, the crisis in education is derived more generally still from a mind-body split, so that the mind-body problem is *central* to educational reform—both in linking (Model II) and integrating (Model III).

At the socio-cultural level, we must transcend the rational Ego for the vision-logic Centaur and make that our new gravitational centre of consciousness which arguably begins in classrooms (*teacher mindfulness training*). Furthermore, at the vision-logic stage, classrooms are built upon a hierarchical development scheme (pre-rational to post-rational) as opposed to teaching rationality indiscriminately (Figure 23). In critical discourse, the Westernisation (and *colonialism*) of the world has led to distorted views of *progress* which is arguably *maldevelopment* disguised through *hidden root metaphors* and an *ideology that masks its own ideology—a contradiction!* Furthermore, in the critical and ecological camps themselves, our situated worldview is a *monological flatland ontology*, and pits *agency* against *communion*, leaving out its co-ordination (*agency-in-communion*) and its vertical counterparts (*Eros, Agape*), leading to horizontal (*isolation, fusion*⁴³⁹) and vertical (*Phobos, Thanatos*) pathologies.⁴⁴⁰ Unfortunately, Westernised scientism has arrogated itself the sole arbiter of truth (Church of Progress) yet has succumb to a false metaphysics

(*metaphysis-in-physis*) by seeking permanence in the transient flow of nature (*sub specie æternitatis*) and perpetuates *fact-value dichotomies*, *veiled materialism*, and *scientific mythologies (dogmas)*, just to name a few. Furthermore, scientific truths are so narrowly defined, it leaves out virtually everything we call *life (quality)*, thereby reducing truth to triviality. Yet scientists make *mistakes* but everyone else is *superstitious!* In short, we have a curriculum deprived of both *consciousness* and *conscience*, leading not to the human, but the *infra-human*. Finally, many of these patterns are patterns we follow unconsciously: we become trapped without knowing our prison.

As regards Model III, our *loka* includes not only *quantitative span*, but also *qualitative depth*, so that our world is *less-than-human (Eco-Noetic)* and not *more-than-human (Eco-Romantic)*. Since there is *depth* there is also *qualitative hierarchy* which unfolds within ourselves and becomes integral to our personal *way* or spiritual *journey* toward the *Heart*. Such a journey recognises that we must *know* (and *combine*) Spirit Transcendent (*Plato's Ascending Path*) before we can *be* Spirit Immanent (*Plato's Descending Path*). Yet, having suffered under the reign of quantity, *ordinary life* dismisses all forms of post-rationalities with the (in)convenience that rationality cannot experience higher, *trans-rational* awareness. Furthermore, to the modern mind, it hardly knows what *Buddhi* is, and confuses what is *fixed* and *immovable (rocks)* for what is *immutable* in (and beyond) *hypostasis* (Greek: *ὑπόστασις*). Thus, the idea that quantum physics—the study of the *least* conscious holons in our existence—in some way explained spirituality, is completely backwards and collapses what is most creative and essential to what is predictive, substantial and *powerful* (Wilber, 2000b). Similarly, change is prized for its own sake—lacking all stability; and given the dangers of destruction these *action-oriented* discoveries and developments bear in themselves, one cannot wonder how long such a ‘mental confusion’ can last before catastrophe(s) which we already see now: *nuclear*,

oceanic, deforestation, extinction, and so on.

Unfortunately, absent a milieu of *contemplation*, which bears the principle of action, “profane education may very often constitute, in fact if not in principle, an obstacle to the acquisition of true knowledge [imposing] certain mental habits of which it may be more or less difficult to rid oneself later” (Guénon, 1946/2004a, pp. 212-213). In essence, modern schooling gives the illusion of knowledge acquired at little to no cost, where *knowledge* is acquired through the process of *contemplation* which presupposes *Mindfulness* as a foundation (Wilber, 2000b). Since all metaphysical knowledge is essentially an *identification* through *intellectual intuition*, an individual as such cannot surpass the individual domain, otherwise this would be a contradiction; “it would be absurd to say that man, as man and by human means, can surpass himself” (Guénon, 1927/2004, p. 206). Thus, what is required is a *death* which can never happen should the *self-sense* remain in the egoic-rational mind in a state of *hyper-preservation* that mistakes *unfreedom* for *freedom*. However, if we are wedded to all that is *quantitative*, then we can never see the superiority of *Quality (too yin)* and will likely cascade toward what is strictly *unintelligible* and *inverted*, including *anonymity, intuition, and love*. Denuded of all quality, we are conceived as interchangeable *units*—no longer a reflection of Unity but spread thin as uniformity: its *caricature*. Such a descent has long affected religion—which is less deformed and dwindled than altogether transposed *beneath* reason to vague sentimentalism (*religiosity*) which, in a manner akin to pragmatism, attempts to communicate with the Divine through the subconscious as opposed to the superconscious, so that “a limited God is stipulated as being more ‘advantageous’ than an infinite God” (p. 61). Finally, the Platonic shadows constitute all our reality (*sum of shadows*) as we have never been so limited as ‘scientific’ popularisers, in lieu of ‘progress,’ would have us out to be (*corporeal entities*)—itself lost in a pattern of *solidification* and subsequent *dissolution!*

Constructing Model II

When we take cognisance of mechanisation, and parallel it to permaculture (see Figure 4), we cannot simply inject complexity—and more strictly ecology—in an anti-ecological framework. In the same manner, we cannot create true community as an add-on to a mono-Natured life (*linear bootstrap process*), since no one needs anyone when we have theoretically destroyed the inter-relationships (*hyper-agency*) that exist (though it remains *illusory* in the *web-of-life*). In Model I the school attempts to rectify the various crises but when we jump to Model II we can see, for the first time, that schooling itself is flawed at its very foundation, imitating our 17th century heritage of *reductionism*. Rather than a *sophistication*, curriculum under Model I is *the end product of the mechanisation process* and stifles educational growth. Curriculum, is *the running of the course* rather than *the course to be run* so that education should focus on developing core (*human*) concepts from the physical to the subtle, such as physical exercise (*recess, air quality*), postures (*asanas*), breathing (*prāṇāyāma*), attention (*śamatha*), sensitivity training, relaxation exercises (*pratyahara, yoga nidra*), proper diet (*nutrition*), meditation (*mindfulness*), just to name a few (Saraswati, 2009b). All these factors have in common the idea of long-term thinking, creating a supple body and mind in equipoise while maintaining natural remedies early on for preventative therapy. In this way, rhythmic irregularities are minimised (*hormonal, neural, and emotional imbalances*). Since we are not constricted to a rigid curriculum, they may be addressed and not *put aside* in order for learning to commence! However, past models of education (*positivism, constructivism*) is really “a system of teaching, but not a system of education. Real education is educating the behaviour of the mind and brain. ... The process of imbibing knowledge is a *spontaneous* [emphasis added] affair which takes place at the deeper levels of the mind” (p. 16).

Such a methodology does not restrain and control modes of behaviour—destroying

the freedom of a child, but cultivates intelligence (Krishnamurti, 1981). In Model I, emphases on the acquisition of knowledge was laid and will only develop means for such ends (see Figure 11). Such a process may include computers—perhaps to replace teachers—but in Model II, computers are limited to creativity, communication, supplementary aids, and so on, and not an end in themselves (and perhaps not used at all at early ages). Therefore, education becomes a process of living, not a inculcation of theory, one, moreover, devoid of context that hardens minds into rational consciousness, an *evolutionary cul-de-sac (non-receptive)*! One last point to consider is our local environment; in Model II, education begins to conceptualise teachings not from a standardized curriculum (an averaged local program spread globally), but global solutions applied locally. Students should learn about their environmental niche, whether it is local markets, foraging, wildlife, woodlands, and so on. So much herbal lore has been lost.

One pattern I was unable to elaborate upon, due to time and length restrictions, was called *what arises naturally?* As I can only allude to the pattern briefly, it simply entails the recognition that bringing a system from maximisation to optimisation, removing excesses, and (re)introducing what rightfully belongs to a system—whether from the angle of diet, exercise, mental stimulation, communal embrace, service, or mindfulness, to name a few, returns a system into balance. For example, improper diet, especially from hormone-injected meat and dairy, cause early maturation in young children (Cousens, 2000). Similarly, the calcification of the pineal gland co-incides with sexual maturation which causes emotional imbalances, disruptive behaviour, and age-inappropriate impulses (Saraswati, 2009b). Another example is quality air and water and nature in general, which offers serenity and relaxation for many emotional imbalanced (and balanced) individuals that would otherwise require “treatment.” The list is endless since disequilibrium is systemic and develops a diversity of symptoms. However, any remedy that is systematically applied is actually a

counter-measure, ignoring the inner dimension (and often organic dimension), and can worsen problems in the future (*chaos theory*). A (non-human) example in ecology, specific to permaculture and similar to pruning, is fertigation. Fertigation leads to removing the soul's nutrients, which leaves the plants without nutrients, which requires further fertigation: a vicious circle in agriculture.⁴⁴¹ There are two addendums to *what arises naturally?* First, there is a *qualitative* difference between *unconsciously* following a pattern that happens to be good for your body, mind, and soul—which generally happens when we have biospheric restraints and no differentiation of the noosphere (*Eco-Romantic*)—and being *conscious*⁴⁴² when following a pattern⁴⁴³ (*mindful*) which requires an intimate relationship of *bodymind* (*non-dissociation*), information (*science*), perseverance, and sensitivity (*Eco-Noetic*). Second, (human) systems with blockages, whether physical, etheric, astral, or mental, will find it difficult to develop equipoise. It must be remedied for transpersonal growth to commence (*a critique against metaphysicians*).

A second pattern I wish to allude to is the topic of systemisation, in particular to the 'mental horizon' of an individual. Far too often I see a belief structure (*cup*) incapable of integrating a higher level of discernment (*plate*) for the *sole* reason that there are "flaws" in a particular view and thus it is better to retain the cup they are comfortable with. Never mind the fact that the *plate* offers solutions to many of the "flaws" in the original system (Model I → Model II), and that there are flaws to begin with in *their* cup! In fact, they are usually *more* flaws in the cup which many seem unable to recognise and appreciate (*close-mindedness*). In a *receptive consciousness* (*open-mindedness*) we can bring the set $n_e \cong 0 \rightarrow n_e \cong 1$ (*post-Modern Platonic Cave*) so that we encompass more variables, sensitivity, and discernment while hopefully gaining an appreciation on the rich tapestry of culture (*world-centric*) as opposed to projecting our own thoughts and values of life toward others (*ethno-centric, ego-centric*).

Since we are now in Model II and not Model I, we can make a connection with *tunnel*

vision and developmental sequences beyond information acquisition and cognitive development (which stops at rationality). There exists a variety of developmental lines (*streams*) each with enduring and invariant stage-like sequences (*waves*⁴⁴⁴) based on developmental psychology research (Wilber, 2001). Streams include: “affective, moral, interpersonal, spatiotemporal, death-seizure [disidentification with a particular level of consciousness; a death/life battle], object relations, cognition, self-identity, self-needs, worldview, psychosexual, conative, aesthetic, intimacy, creativity, altruism, various specific talents (musical, sports, dance, artistic), and so forth” (p. 215). Each stream is quasi-independent and loosely held by the self-system. For example, Wilber makes an example: a Zen sage may be in bliss and have a transpersonal moral development, having no desire to hurt even a blade of grass, yet uses styrofoam which indirectly kills. Of course, as I see it, once the information comes to the sage they will likely integrate that information much more readily in their self-system. Here is a great example of where science meets spirituality. On the other hand we may have a genius with a highly developed cognitive stream with hardly a drop of morals (*tunnel vision*). A fact-value dichotomy is inevitable.

Waves can be experienced in two ways. When one reaches a fulcrum of self-sense development for a particular stream, they may be in a temporal *state* or an enduring *stage*. For instance, a person that uses drugs may skyrocket into higher transpersonal domains yet immediately drop back down to whichever wave they had previously stabilised, whether personal or pre-personal. Notwithstanding the inherent risk in spiritual development by the use of drugs, the individual is incapable of stabilising the new state into a stage which requires spiritual training in meditation. Moreover, waves are experienced in sequences such that psychological development precedes spiritual development. In a collapsed worldview, what is psychic in the intermediary world (*antariksha*)—usually the lowest and *malefic* of stages—is mistaken for spiritual states, which transcends even the highest stages of the psychic order

(Guénon, 1945/2004). Similarly, what goes *beyond* an individual state (*span*) is also mistaken for what is spiritual, simply because it extends previous limits one was enclosed in.

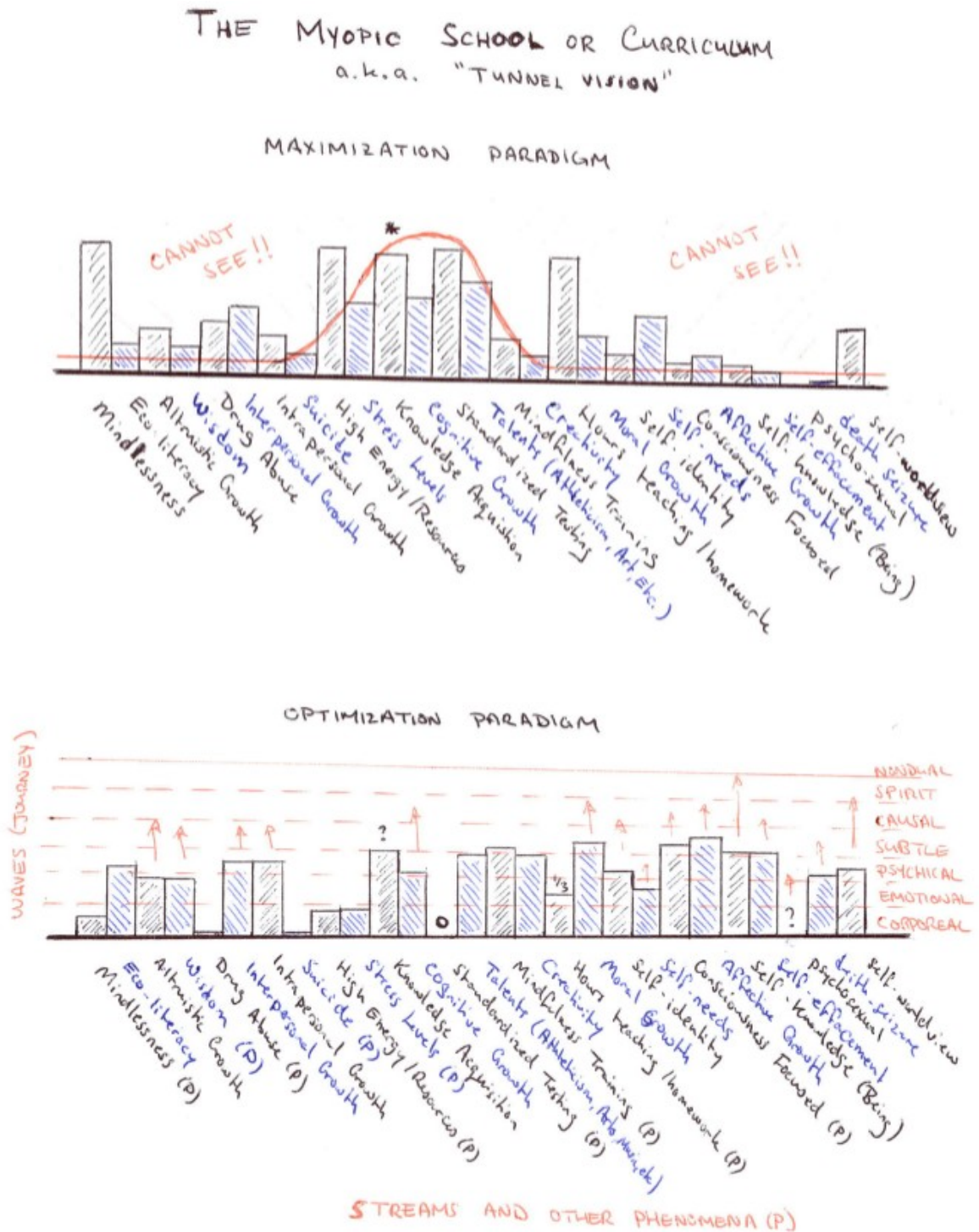


Figure 27. A (w)holistic model for education that avoids tunnel vision. As Doll (2002) stated, “teaching in a methodized way removes the experiences of the learner, the learner’s very *being* [emphasis added] from the learning process” (p. 141). Similarly, as Orr (2005) stated, “all education is environmental education ... by what is included or excluded we

teach the young that they are part of or apart from the natural world” (p. xi). The bottom graph removes the tunnel vision and incorporates waves and streams for spiritual and developmental journeys.

The past symbolises a longing for simpler times. Our nostalgia is not without evidence either as trends so new seem to corroborate what is, in fact, quite old. Organic movements or *natural living* that pertain to our biological nature—within greater ecological niches—systemically show a reversal of many geriatric conditions which will soon become endemic. Our mind-heavy culture exacerbates these trends in our bodymind dissociation. However, the past has also influenced us greatly—and in many ways we are still playing out Cartesian mechanism. Critiques on Modernity has led many “driven to the conclusion that everything seems to be increasingly artificial, denatured, and falsified” (Guénon, 1946/2004a, p. 192). A simple application of logic will “indicate that if everything has become artificial, the mentality to which this state of things corresponds must be no less artificial than everything else, that it too must be ‘manufactured’ and not spontaneous” (p. 192). Furthermore, although we can never return to the time of Plato, we can always return to the timeless tradition he and many other great Masters—whether Daoist, Christian, Buddhist, Hindu, or otherwise—espoused.

Constructing Model III

If modern philosophers ask *why?* educationalists must face the question *so what?* (Dr. John Novak, personal communication, August 11, 2011). Since “no strand in the web is ever aware of the whole web, which is why empirical holism ends up divisive, dualistic, and isolationist” (Wilber, 2000b, p. 624), Model II becomes an *expanding cup*; a flatland, monological, and interlocking order of ‘holistic’ elements—which cannot posit its own subjectivity—simply assumes scientific naturalism and positivism cover all possible bases. Such an assumption is only applicable in *illusory mode* as the entire manifest Kosmos [L] does indeed have correlates in the empirical [R] world. Yet, when the Kosmos (*depth*) is

reduced to the cosmos, education and science become driven by functional span alone (*technologia*) and the emerging Eco-Noetic culture—one that strives to *include* as many cultures as possible rather than base culture solely on *exclusion*—regresses to the Eco-Romantic. Rather than seek the integrative power at the *trans*-rational—since it does not exist—it regresses to the *pre*-rational. Drawing further on Gebser’s research to surpass the *rational consciousness*, Feuerstein (1992) wrote:

The *integral consciousness* is associated with *ego-transcendence* (rather than *egolessness*), self-transparency, freedom from anxiety (especially from the fear of *time*), openness, *emotional* availability and *fluency*, *participatory freedom*, personal responsiveness, *bodily presence* (rather than abstraction from life), the ability for genuine intimacy, equanimity, *reverence for all life*, the capacity for *service*, and *love* [emphases added]. (p. 19)

The time is ripe for metaphysics and spirituality. Although Carl Sagan had wished for an age of humankind when people would settle their differences and become not *planetary* citizens, but *galactic* citizens, I think we can do better than that as the cosmos conforms to a {Each, All} worldview with no room for theology, spirituality, or {One}. Rather than seek the *unity* of our poetic *verse*, science has largely focused directly on sensory and mental experiences. Anything beyond (*mystical*) was, according to Kant,⁴⁴⁵ *empty* and *devoid of experiential grounding* (Wilber, 2000b), and became “mere abstractions”; a *category error* which replaced *spirit* with *mental* in an attempt “to cover experiences that *aren’t* in themselves mental. These “representations” then become “mere metaphysics,” [which] hasn’t any experiential grounding [and becomes] simply *empty categories* devoid of true knowledge” (p. 707) and dropped altogether. However, “the real conclusion of [Kant’s] argument is that *all future metaphysics must be experiential*⁴⁴⁶ [emphasis added]” (p. 707). Despite that every thinker from Kant onward has announced “the death of metaphysics,”

“the death of philosophy,” and even “the death of God,” “the real prolegomenon to any future metaphysics is, not that the endeavour is altogether dead, *but that the real metaphysics can now, finally, get under way*⁴⁴⁷ [emphasis added]” (p. 707). Therefore, in “nondual Suchness “each being is [not] *part* of the One [or] a strand in the Big Web” (p. 357), rather, “each individual holon *is* the One Spirit *in its entirety*—the Infinite, being radically dimensionless, is fully present at each and every point of spacetime” (p. 357). Therefore, simply adding all finite things is unnecessary and “why the Nondual traditions are so radically *noninstrumental* in their value orientations: individual holons do not have value merely because they are parts of a great web; they have value [as] perfect manifestations of the primordial Purity of Spirit” (p. 357).

Contextualising Eastern Mindfulness and Western Mindfulness

In the secular tradition mindfulness as meta-awareness is coupled with a concern of the present moment, a suspension of judgment, and a focus on relaxation (Siegel, 2007; Kabat-Zinn, 2005). It is part of a growing segment in positive psychology⁴⁴⁸ which formulates *authentic happiness*, bringing together the *pleasant life* of simple enjoyment, the *good life* of optimal absorption and engagement (*flow*)—a popular educational praxis developed by Mihaly Csikszentmihalyi—and the *meaningful life* which places ones situation toward a greater communal whole (span-orientation). However, to Wallace (2011), the concept of Eastern suffering is mistaken for Western authentic happiness while *genuine* (Eastern) *happiness (bliss)* is mistaken as suffering!! He stated that “we instinctively grasp on to the impermanent as permanent, durable, and unchanging. We grasp on to that which is not by nature a true source of happiness, thinking of it as a true source of happiness” (p. 68). From a Buddhist analysis, authentic happiness is not genuine happiness since “every time you return to that source [of happiness], it should deliver satisfaction. If it is an actual source of happiness, it should invariably deliver happiness—fifteen times a day or twenty hours

nonstop” (p. 67). Therefore, teasing apart hedonic happiness and genuine happiness, Buddhists ascribes three sources to the latter: ethical blamelessness, mental balance (*samādhi* by the cultivation of Mindfulness through *śamatha*), and insight (through *vipaśyanā*) into the nature of reality: the joy of *awakening*—a term I will return to.

According to Wallace, positive psychologists suffer from a *fact-value dichotomy* and do not consider *ethics*: the basis of all spiritual traditions;⁴⁴⁹ similarly, a genuine Eco-Noetic pedagogy should likewise see education as *applied ethics* (Dr. Jonathan Neufeld, personal communication, November 7, 2012). Science (*metaphysical realism*) as “the acquisition of scientific knowledge is not designed to bring about genuine happiness from within or to purify the mind” (p. 72); moreover, “the consensus among Tibetan Buddhist scholars [Madhyamaka view] is that metaphysical realism collapses like a house of cards” (p. 53). On the Western concept of *flow* or being in the *zone*, Wallace concluded that it *does not even reach the first (of four) stage(s) of dhyāna—but mimics the coarse level!* From the authoritative text themselves, the first *dhyāna* sustains *samādhi* for twenty-four hours with “little notice of the passage of time, full use of conceptual ability, and a largely nonconceptual repose—[a truly] extraordinary state” (p. 106)! Describing the fourth *dhyāna*, at the limit of the formal realm, “it is said that advanced practitioners can remain in *samādhi* for days without even breathing” (p. 198). Thus, Western mindfulness, without the support of ethics, *samādhi*, and the Kosmic view of *Buddhadharma*, becomes a “radically simplified, *decontextualized* mindfulness practice ... only one small aspect of the vast framework of the Dharma” (p. 94). Similarly, Mindfulness is foundational to advanced meditations and is infertile and impoverished without the rich contemplative wisdom of traditions that perfected it.

Originally, the authentic practice of Mindfulness (*sati, smṛiti, recollection*) did not refrain from labeling experiences in nonjudgmental ways, but aimed “to distinguish between

wholesome and unwholesome, beneficial and unbeneficial tendencies. The contrast between the ancient and modern accounts is striking²⁴⁵⁰ (2006, p. 61). Both *sati* and introspection (Sanskrit: *samprajañña*; Pali: *sampajañña*) are *cultivated* in *śamatha*—which requires a balance of relaxation, stability, and vividness of attention—and *applied* in contemplative insight (Sanskrit: *vipashyana*; Pali: *vipassana*). As an aside, Wallace noted *śamatha* may be integral to healing or preventing attention-deficit-disorders. Alongside *śamatha* and *vipashyana* is the cultivation of the four immeasurables: loving-kindness, compassion, empathetic joy, and equanimity—also known as the four sublime abodes (Sanskrit: *brahmaviharas*). The fourth category of the Dharma is *prajña* (“wisdom, intellectual discernment”) whose perfection (Sanskrit: *pāramitā*) “culminates in the abolishment of delusion by direct realization of the nature of reality” (2011, p. 6). These support the fifth category pertaining to practices of Dzogchen Buddhism (Tibetan: *rdzogs chen*) which is our buddha-nature (*enlightenment*) or pristine awareness (*rig pa*).

Genuine happiness from the Buddhist perspective is found by analysing our *dukkha* as the first of the Four Noble Truths (Sanskrit: *catvāri āryasatyāni*; Pali: *cattāri ariyasaccāni*). *Duḥkha* in general is understood as *suffering* or *pain*—a misinterpretation giving a pessimistic outlook on life; but Buddha taught that *duḥkha* are better translated as *unsatisfactoriness*. The Buddha resorted to simple aphorisms regarding the Four Noble Truths, “here is the reality of suffering: *understand it*. Here is the reality of the origin of suffering: *abandon it*. Here is the reality of the cessation of suffering: *realize it*. Here is the reality of the path to the cessation of suffering: *follow it* [emphases added]” (p. 37). When suffering arises, our natural inclination is to avoid it, but Buddha gives counterintuitive instruction to attend, investigate, and understand it! For the First Noble Truth, Buddha formulated the *four close applications of Mindfulness* (Sanskrit: *smṛityupasthana*; Pali: *satipatthana*) as antidotes to the four corresponding habitual misunderstandings of our body

and mind (*skandhas*), feelings (*vedana*), and phenomena (*dharmas*)—attributing these to the real self. For the Second Noble Truth, the origin or arising (Sanskrit: *samudaya*; Tibetan: *kun 'byung*) of suffering is examined—without examination, we end up with both authentic happiness and the *plight of insufficiency* (see Figure 2). The Third Noble Truth was Buddha's historic—perhaps unprecedented—insight: *samādhi was insufficient unto itself*⁴⁵¹—merely a step toward Enlightenment and *cessation* (Pali: *nirodha*; Tibetan: *'gog pa*) of *duḥkha*.

The Fourth Noble Truth was the Eightfold Path (Sanskrit: *marga*; Pali: *magga*) toward Enlightenment where *sati* and *śamatha* practice, as the first step, created an *ambrosial dwelling*, a state of equipoise that disperses and quells mental afflictions. The practice of *śamatha* (*meditative quiescence*) is required for advanced meditations, as a mind easily distracted becomes unfit for them. Similar to Qigong, *śamatha* is cultivated in hierarchical stages of attention (direct, continuous, resurgent, close, tamed, pacified, fully pacified, single-pointed, balance) with actual *śamatha* attained as the tenth stage, leading to the ability to retain *samādhi* for 4 hours and “freedom from the five obscurations, or hindrances (Skt. *nivaranas*; Tib. *sgrib pa*), which are (1) sensual craving, (2) malice, (3) laxity and lethargy, (4) excitation and anxiety, and (5) uncertainty” (p. 89). *Śamatha* leads to the first *dhyāna* (24 hours *samādhi*) which is only the platform for the real work! Eastern Mindfulness, unlike Western mindfulness, is much more than a relaxation technique for the remedy of tension!⁴⁵²

The perennial philosophy and the eternal present. The idea of living in the present moment or *living in the now* is simply a reflection of the *eternal Now* that metaphysicians speak of. Colloquially, the present moment denotes the middle term which separates past from future moments. But, what the Eastern spiritual traditions call a *single-instantaneous awakening* (*eka-kṣaṇa-sambodhi*) does not occur in the present moment in the temporal order—where the term present is just successive orderings of time that are *indefinitely*

minute. So fleeting is this perpetual present moment that one continues to grasp successively at almost no-thing at all! This plate distinguishes succession from spontaneous:

{present moment} → {temporal present, eternal present}

In other words, the *timeless* where the present moment is a reflection of the *eternal Now* (pattern 3). The symbolism for the eternal Now is in the face of Janus, the Master of three-fold time. One face looks behind, the other looks forward, but the third is “invisible because the present in its temporal manifestation is but an ungraspable instant; but when one rises above the conditions of this transitory and contingent manifestation, the present, on the contrary, contains all reality” (Guénon, 1962/1995, p. 90). From the Hermetic tradition, the three times are made one by their continuity in equilibrium. Thus, “seeing that the present does not stand fast, even for an instant (*κέντρον* = *punctus*), how can it be said to be ‘present’ (lit. ‘in-standing’) when it cannot stand in equilibrium (*ῥοπή*)” (Coomaraswamy, 1947, pp. 82-83)? The conclusion for Hermes Trismegistus (Ancient Greek: *Ἑρμῆς ὁ Τρισμέγιστος*, “thrice-greatest Hermes”) is “that which is ever becoming is ever perishing, but that which has become once for all (*ἄπαξ*) perishes not at all” (p. 83). In Hinduism, the third face of Janus “corresponds to the frontal eye of Shiva, which is also invisible, not being represented by any corporeal organ, and which represents the ‘sense of eternity.’ It is said that a glance from this third eye reduces everything to ashes, that is, it destroys all manifestation” (Guénon, 1962/1995, p. 91) Therefore, “when *succession* is transmuted into *simultaneity*, all things remain in the *eternal present*, so that the apparent *destruction* is really a *transformation* in the most rigorously etymological sense of this word” (p. 91).

The esoteric side of the Platonism: A return to its symbolist roots. The Academy of Plato, whose real name may have been *Aristocles* (Hall, 2000a), was an attempt at *cosmopolis*, derived from classical Greek denoting two forms of order: those found in nature (*cosmos*), and those implemented by society (*polis*). Unfortunately, Platonism has been

filtered out for exoteric accounts on Greek philosophy. Platonic philosophy, and Pythagorean by extension, were considered by Neo-Platonist Iamblichus (1881) *ambrosia and nectar of the gods* [emphases added]:

For the pleasure arising from [the theorems of philosophy] is genuine, incorruptible, and *divine*. They are also capable of producing *magnanimity*; and though *they cannot make us eternal beings*, yet they enable us to obtain a scientific knowledge of *eternal natures*⁴⁵³ [emphases added]. (p. 200)

Hall (2010a) sums up modern philosophy: “in the twentieth century [philosophy] has become a ponderous and complicated structure of arbitrary and irreconcilable notions—*yet each substantiated by almost incontestable logic* [emphasis added]” (p. 10). Regarding the theorems of the old Academy: the nectar and ambrosia of the gods “have been so adulterated by opinion—which Heraclitus declared to be a falling sickness of the mind—that the heavenly mead would now be quite unrecognizable to [the] great Neo-Platonist [Iamblichus]” (p. 10). To Frithjof Schuon (1970/2009), all “down the ages to philosophize was to think; it was left to the twentieth century [existentialists] not to think and to make a philosophy of it” (p. 22). Guénon (1927/2004) articulated the decay of philosophy less poetically: “the perversion that ensued consisted in taking this *transitional stage* [Pythagorean philosophy] for *an end in itself* and in seeking to substitute ‘philosophy’ for wisdom, a process which implied forgetting or ignoring the true nature of the latter” [emphases added]” (p. 13). Thus arose “what may be described as ‘profane’ philosophy, in other words, a pretended wisdom that was purely *human* and therefore entirely of the *rational* order, and that took the place of the true, traditional, supra-rational, and ‘non-human’ wisdom [emphases added]” (p. 13). Hence Pythagorean philosophy entails a *love of wisdom* and not a *wisdom of love*—however clever that may be.

In remembrance of Plato. As Thomas Taylor (as cited in Hall, 2010) summarizes,

“Plato was initiated into the ‘Greater Mysteries’ at the age of 49. The initiation took place in one of the *subterranean halls* [emphasis added] of the Great Pyramid in Egypt” (p. 118). There, “the *Divine Plato* stood *and received that which was always his*, but which the ceremony of the Mysteries enkindled and brought from its *dormant* state [emphases added]” (p. 118). Thereafter, “the *Initiate Plato* was sent out into the world to do the work of the Great Order, as *Pythagoras* and *Orpheus* had been before him [emphases added]” (pp. 118-119). On Orpheus (Greek: Ὀρφεύς), Fabre d’Olivet (1767–1825), a distinguished yet relatively unknown Hebraic linguistic and metaphysical scholar, wrote that he was “initiated into all the mysteries of religion and science: he surpassed . . . all those who had proceeded him, by the beauty of his verse, the sublimity of his chants, and the profoundness of his knowledge in the art of healing” (1991, p. 26) and that “he took his name from that of his doctrine⁴⁵⁴ which aimed to cure and to save by knowledge” (p. 26). Verse, or poetry, according to d’Olivet, “was not at all in its origin what it became later [read: decay], a simple accomplishment; . . . it was the language of the gods [supra-human stated], *par excellence*, that of the prophets, the ministers of the altars, the preceptors and the legislators of the world” (pp. 30-31). Therefore, the *lesser mysteries*, which is a return to the centre (*Chung Yung*), and the *greater mysteries*, which rises beyond the individual (*T’ien Tao*), are matters of esotericism. To apply the label of *occult* to Plato is appropriate but requires careful clarification. The word occult “originates in the *vires occultae*, the unseen forces of nature, and in the *occulta*, the secrets relating to the ancient mysteries” (Schuon, 1970/2009, p. 1). Whereas modern occultism “is reducible *grosso modo* to the study of extrasensory phenomena, which is one of the most hazardous pursuits because of its wholly empirical character⁴⁵⁵ and lack of any doctrinal basis” (p. 1). Modern occultism may fight against materialism, but merely places a material character on subtler domains (*inverted spirituality*). And to describe “all authentically esoteric doctrines and methods as ‘occultism’

involves but one further step in the [depreciation of pseudo-religious speculations]. ... It is as though one were to describe genuine mystics as occultists because they too are concerned with the unseen” (p. 1).

The “awakening” of latent possibility: remarks on reminiscence or recollection.

Educationally, Plato stated in *Meno*: “‘that we do not learn, and that what we call learning is recollection’ (ὅτι οὐ μανθάνομεν, ἀλλὰ ἦν καλοῦμεν μάθησιν ἀνάμνησίς ἐστι) and that there is ‘no teaching, but only recollection’ (ὅς οὖν φημι διδασχὴν εἶναι ἀλλ’ ἀνάμνησιν)” (Coomaraswamy, 1987, pp. 59-60). With *eirōneía*, Plato’s doctrine has sadly been forgotten. On *recollection* (*smṛti*, *sati*), what perennialists “call ‘learning’ is really a ‘remembering’ and that our ‘knowledge’ is by participation in the Omniscience of an immanent spiritual principle” (p. 49). Here, “the omniscience of the immanent spiritual principle, *intellectus vel spiritus*, is the logical correlative of its timeless omnipresence. It is only from this [metaphysical] point of view that the concept of Providence (*prajñā*, *πρόνοια προμήθεια*) becomes intelligible” (p. 49). Thus, “the Providential Self (*prajñātman*) does not arbitrarily decree our ‘Fate’ but is the witness of its operation: ... Providential knowledge is no more a future than of a past, but only of a *now* ... which the empirical self [*ego*] is therefore incapable” (p. 49).

On the Scholastic adage *esse et unum convertuntur* (Being is One, at that it is Unity itself) the Self knows everything (*omniscient*) because of His omnipresence and “memory is a participation of His awareness who never himself “remembers” anything, because he never forgets. “Memory,” as Plotinus says, “is for those who have forgotten”” (p. 51). Our power to remember lies “in ‘clarivoyant-sleep’ (*svapne*) that divinity intuits (*anubhavati*) Greatness” (pp. 51-52) understanding that *svapne* is not “ordinary sleep or dreaming, but a state of contemplation (*dhyāna*). [He] who is said to be ‘asleep’ (*svapiti*) when he [*sic*] controls the powers of perception and action. Resuming the recognitive power (*vijñānam ādāya*), *he rests in the heart* [emphasis added]” (pp. 51-52). To sleep and dream is not from

fatigue in the ordinary sense: “life is an “awakening from nonexistence; “sleep” is an awakening from life” (p. 52) and “it is not by thinking (*citta*) but Memory (*sati = smṛti*) that we remember” (p. 53).

According to Coomarswamy, the Buddhist sage Nāgasena (c. 150 B.C.E.) spoke of Memory or Recollection in two ways: “either by over-knowing [*self-revealing*] without means (*abhijānato*) [innate wisdom], or by external stimulation (*kaṭumikā*) [acquired wisdom]. [...] Memory, in any case, is a *latent power* [emphasis added]” (pp. 53-54) revealed when the mind remains “steadfast, immutable, eternal, of a nature that knows no change” (p. 55). For Plato, “it is precisely a *failure to remember* that drags down from the heights the soul that has walked with God (*θεῶ ζῆνοπαδός = brahmacārī*) and had some visions of the truths, but cannot retain it” (p. 55). By their nature, “the gods ‘never learn’ [so that] recollection [for us] is *life itself* [emphasis added], and forgetfulness a lethal draught” (p. 56). In modern education memory is simply rote memorisation and is not concerned with the state of deep sleep (*sushuptasthāna*) or condition of *Prājñā* where our memory dwells; the Platonic *reminiscence* is an *awakening* and effective cognisance (*Γνωσις*) of our *post-formal possibilities* which we bear within ourselves. Recollection is also not *foreknowledge of future moments*, but a *fore* knowledge that remembers prior to empirical means of knowing in the *present moment*. Thus doth truth flash upon the soul in long periods of contemplation so that they who identify with a synthetic whole of *integral Knowledge* (*Prājñāna-ghana*), who “attains to the same uninterrupted omniscience ... as in Praśna” (p. 58), and is filled with beatitude (*ānandamaya-kosha*), the highest Vedantic sheath of bliss, remembers who they are *in divinis*. In contradistinction, *distinctive knowledge* (*vijnānamaya-kosha*) is the envelope of wisdom “in which *Ātmā* is clothed on entering the ‘world of names and forms,’ that is to say when manifesting itself as *jīvātmā*” (Guénon, 1925/2004, p. 95). Still further down is *profane knowledge*.

The contours of the cave. Having begun with *death* and *Gnōthi seauton* I come full circle to expand upon them. In integral psychology all hierarchical emergences (*waves*) represent a death/birth from previous stabilisations.⁴⁵⁶ For instance, preoperational thinking dies so that concrete operational thinking can be born with formal operational thinking soon to follow. Unfortunately, the impetus from socio-cultural factors stops here and stabilises as a magnet to pull everything below rationality (*formal*) *up* and, more importantly, anything above rationality (*post-formal*) *down*. The new stabilisation that schooling should address at the socio-cultural level is to *crystallise the integral consciousness*. Metaphysically, at the limit of an individual life, the word death is simply a change of state for the transmigration of the soul: a death to an antecedent state and a birth into a consequent state. However, in life (*jīva*), there is what is called an *initiatic death* designating a *second birth*, which is the birth of a spiritual principle at the Heart (*pinda*) of the human individuality, which has only existed latently, waiting to be actualised or *recollected* (Guénon, 1946/2004a).

Etymologically, initiation derives from *initium* and means nothing more or less than *entrance* or *beginning*, which is the beginning of Plato's cave. In some traditions the cave is preceded by a *labyrinth*, such as the familiar story of Crete and the minotaur. A labyrinth is distinct from a *maze* in that there is only one direction to follow; as I see it, in a maze one can get *lost* but in a labyrinth it is simply a problem of getting *stuck* (albeit regression is a real possibility). One can argue that the labyrinth is equivalent to the Platonic *shackles*, but it is a stretch. However, the labyrinth itself is situated around the cave so that the cavern is at the *centre*. Both the cave and the labyrinth represent a *subterranean journey* and for funeral rites the journey ends here, but for initiation, "the subterranean journey is almost always followed by a journey in the open air, which many traditions represent as a navigation" (Guénon, 1962/1995, p. 140) or *pilgrimage*. Both the cave and the labyrinth represent *darkness*, symbolising a change of state prior to *illumination*, while also representing access for a

descent toward the centre of the Earth (*Dante's hell*) to exhaust lower psychic possibilities. A major misconception here is assuming illumination is acquired upon exiting the cave, but illumination occurs *in* the cave symbolised by the prisoner turning around to see the fire; it is *outside* the cave where *outer darkness* reigns as the *profane world of ordinary life*. Thus, as John (1:5) stated for a soul “twice born” (*dvija*), now endowed with spiritual Grace (*Prasāda*), *et lux in tenebris lucet et tenebrae eam non conprehenderunt* (And the light shineth in darkness; and the darkness comprehended it not, KJV).

Here the initiand (*homo moriturus*), as a microcosmic reflection, becomes “an image of ‘what was done from the beginning’” (Guénon, 1962/1995, p. 287) so that the second birth⁴⁵⁷ is “a kind of ‘recapitulation’ of the antecedent states by which the possibilities relating to the profane state [lower psychic] are definitively exhausted” (Guénon, 1946/2004a, p. 173). Therefore, in darkness, a *purification* or *psychic regeneration* occurs “in order that the being may thenceforth freely develop the possibilities of a superior [higher psychic, spiritual] order that he [*sic*] bears within” (p. 173). A *reversal* or *rectification* also occurs as regards the subtle realm so that we become aware as a soul with a body and not a body with a soul (*psychikos*). The illuminating subtle world (*pravivikta*)—literally *predistinguished* because it is a state of distinction that precedes gross manifestation—“is also ‘Light,’ as is indicated by the designation *Tajasa* given to the [macrocosmic] subtle state that forms its proper ‘world,’ the possibilities of which it contains essentially within itself” (pp. 293-294). The vivifying, *life-giving* seed is the producer of manifestation and produced by *Brahmā* (as *Kārya-Brahmā*), also called *jīva-ghana*, the *synthetic aggregate of life*. Biblically (John 1:4), in the Fourth Gospel of Saint John (τὸ κατὰ Ἰωάννην εὐαγγέλιον), “this cosmic Light appears as ‘Life’: *Et Vita erat Lux hominum* [‘and that Life was the Life of men’]” (p. 294).

On the symbolism of darkness, the alchemical expression *nigrum nigro nigrius*

(“black blacker than black”) is literally the obscurity and chaos of *materia prima* or primordial *hyle*; this *lower darkness* represents, in the *cosmological* order, the material pole (*indifferentiation, indistinction, potentiality*) of manifestation. However, it is also a reflected image or inverted symbol (Seal of Solomon) of a *higher darkness* which represents, in the *metaphysical* order, the principal state of non-manifestation (*possibilities*). This higher darkness is “in reality the Light that surpasses all light, that is, beyond all manifestation and every contingency, the principal aspect of light itself” (Guénon, 1952/2004, p. 151). This Light is related to the initiatic device *Post Tenebras Lux* (After Darkness, Light) which occurs as a direct consequence of initiation with a second initiatic device, *Ordo ab Chao* (Order from Chaos), as an immediate consequence, “since it is the original vibration of the *Fiat Lux* that sets in motion the beginning of the cosmogonic process by which ‘chaos’ will be so ordered as to become ‘cosmos’” (p. 286)! The spiritual influence (*transmission*) is called “a ‘vibration’ in regard to the *Fiat Lux*, by which the chaos of spiritual potentialities is illuminated and ordered, although this in no way involves vibrations of a perceptible kind like those studied by physicists” (p. 29).

Now to Plato, “the subtle state is properly the realm of $\psi\upsilon\chi\eta$ [*psukhē*] and not that of $\nu\omicron\upsilon\varsigma$ [*Nous*]; the latter in reality corresponds to *Buddhi*, that is to say to the supra-individual intellect” (p. 92). Recall “what is ‘rational,’ that is, whatever relates exclusively to the exercise of individual human faculties, can obviously never in any way reach the Principle itself and, under the most favorable conditions, can grasp only its relationship to the Cosmos” (p. 119). Therefore, in order to apprehend *Nous* (*supra-rationality, Intellect*), one had to traverse the cave toward the “real Light” past the fire—which was only a symbol—and upon exiting the cave, see a reflection in the waters;⁴⁵⁸ in Hinduism, it is “the ‘living soul’ (*jīvātmā*) which is here compared to the image of the sun in water, as being the reflection (*ābhāsa*) in the individual realm, and relative to each individual, of the Light,

principally one, of the ‘Universal Spirit’ (*Ātmā*)” (p. 49). Having now arrived at the World Axis (*chen jen*), *Nous* (formless manifestation) appears as “the luminous ray which confers existence upon this image, connecting it with its source” (p. 49).⁴⁵⁹ The exit of the cave symbolises the beginning of the Greater Mysteries into the supra-human (*angelic*) stages of consciousness. The being then undergoes a *second death* or a *third birth* which should be “represented rather as a ‘resurrection’ than as an ordinary birth because it is no longer a question of a ‘beginning’ in the same sense as on the occasion of the first initiation” (p. 174). The second death is equivalent to a *psychic death* to *transform* into the spiritual order, apprehended as a physical correlate in the state of deep sleep (*Prājñā*). Known as “*samprasāda* or ‘serenity’, the intelligible Light is seized directly, that is to say by intellectual intuition, and no longer by reflection though the mental faculty (*manas*) as occurs in the individual states” (p. 99).

Thus, the *Nous*, as the Gnostic Ray, connects to the One, the Spiritual Sun where our physical sun is simply a symbol. Similarly, Plato insisted on Sight and Light since it connects to the root *vid* bearing “the twofold meaning of ‘seeing’ (*videre* in Latin) and ‘knowing’ (as in the Greek *οἶδα*): sight is *taken as a symbol of knowledge* [emphasis added] because it is its chief instrument within the sensible order” (Guénon, 1925/2004, p. 9). One who has entered the Greater Mysteries is now conscious on three planes—*hylic* (*body, waking*), *psychic* (*soul, dreaming*), and *pneumatic* (*spirit, deep sleep*) and becomes a *pneumatikos*.⁴⁶⁰

For one who has apprehended and assimilated *voũς*—which implies an inner transformation (Latin: *cum-vertere*)—is said to have undergone an “intellectual metamorphosis” and “passes from ‘human thought’ to ‘divine comprehension’” (Guénon, 1952/2004, p. 61). Applying pattern three, the being has undergone a *conversion* (Greek: *metanoia*), taken in a *vertical* sense, and not a horizontal sense, which “properly expresses a change of *nous*, [and] is therefore the conscious passage of the ordinary and individual mind,

normally turned toward sensible things, to its superior transposition, where it is identified with the *hēgēmon*⁴⁶¹ [inner ruler, leader] of Plato” (p. 61). In other words, our emphasis in life shifts from *pleasure* to *significance*, or mindless sensibility to Mind itself.

The Symbolism of the Cave

The Platonic (initiatic) cave is a *form of the cosmos*, in particular, as an *image* of manifestation with the roof as Heaven (supra-terrestrial possibilities) and the ground as Earth (subterranean “malefic” or “infernal” potentialities). In closing the symbolism of ternaries, the principal ternary (Δ , ‘1-2-3’) situates the first term, Being (*T'ai Chi*), at the apex with the second (*T'ien*) and third (*Di*) terms on the left and right respectively. Note the difference in perspective when Heaven represented a vertical line and Earth a horizontal base (see Figure 24). The apex (*unity*) gives rise to *duality* (*complementaries or contraries*). Conversely, the Far-Eastern (“Great”) Triad (∇ , ‘2-3-4’) is a ternary composed of the same two complementary terms plus a third term (*Jen*) resulting from their *union*. Combining these two triangles we get the quaternary (‘1-2-3-4’) where *T'ai Chi* and *Jen* are vertical reflections of each other and each reconcile duality through a mediator role. The first *qua principle* while the second *qua resultant*. Thus:

The mere fact of acknowledging the existence of a duality and situating it where it truly belongs is in no way tantamount to ‘dualism’, so long as the two terms of this duality derive from a single principle belonging as such to a higher order of reality. (Guénon, 1962/1995, p. 18)

Thus, in spite of all post-Modern critiques, Plato was a nondualist since it is “immediately evident that any ‘dualism’ is of necessity also a ‘naturalism’” (p. 18)! Moreover, the sensible (*Nature*) is used to symbolise the suprasensible since perception is comprehensible to our senses. Hermetically,⁴⁶² these ternaries form the Seal of Solomon (*Star of David*) if superimposed. The significance for education is that *Jen* is both both

produced by Heaven and Earth as Sons or Daughters, *but at the same time we combine them within ourselves as mediators—a reflection of principial Unity that also combines Heaven and Earth, albeit in a pre-differentiated and unmanifest state.*

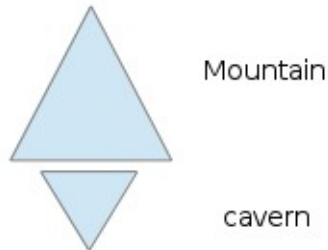


Figure 28. The true platonian cave as an inverted reflection of the cosmos. As Guénon (1962/1995) stated, the mountain is a primordial symbol where Truth is at the “summit” and likened to “ambrosia” (*soma, amrita, wine*). It “can be reached ‘neither by land nor by sea’” (p. 79). The mountain is also symbolic of the *axis mundi* (*World Axis*) and was openly visible to all before the “*primordial fall*,” hereafter defined metaphysically: “this gradual movement away from essential unity can be envisaged from a twofold point of view, that of simultaneity and that of succession; ... In all cases however the domain in question can be represented geometrically by a triangle of which the apex is the essential pole, which is pure quality, while the base is the substantial pole, which in our world is pure quantity, symbolized by the multiplicity of the points comprised in the base, and contrasted with the single point which is the apex; and if lines are drawn parallel to the base to represent different degrees of remoteness from the apex, it becomes clear that multiplicity, which symbolizes the quantitative, will be all the more accentuated as the base is approached and the apex left behind” (pp. 49-50). After the descent the cavern as an image of *obscurity* and *concealment* replaced the Mountain. The cave is pictured smaller as a representation of inverse spatial symbolism—that what is spatially infinitesimal (spirituality) is the principle of space. Finally, what lies in the centre-most region of the cavern is the Divine City (Greek: *polis*; Latin: *civitas*) which represents the *cosmopolis* Plato sought represented externally as population (*populus*) but internally as *plenitude*. Similarly we have the Buddhist symbol *vajrasana* (*thunderbolt, diamond throne*) which Plato alluded to in the description of the World Axis (*sushumnā*) as a luminous axis of diamond. Hence *Vajrayāna Buddhism* is the ‘*Diamond Way*.’

Of course, materiality as *materia prima*, “that is to say pure quantity, can never be reached in the course of the development of manifestation, though manifestation tends always more and more toward it” (p. 50). However, the symbol of the Mountain “would also indicate that from below a certain level the apex, that is to say essential unity or pure quality [spirituality], would be more or less lost to view, *and this corresponds precisely to the existing*

condition of our world [emphasis added]” (p. 50). What is truly hidden (*guh*) and secret (*gupta*) lies the heart (*guhā*), which the cave represents in diagrammatic form!! The Platonic cave has nothing to do logic or dialectic (brain) or the modern school, but is the literal key to the Heart, where the Divine Plato stood to receive that which had always been his. In this space in the heart (*antarhṛdaya ākāśa*) lies the cavity (χῶρος) or “locus (*āyatana*, *veśma*, *nīḍa*, *kośa*, etc.) where are deposited in secret (*guhā nihitam*) all that is ours already or may be ours on any plane (*loka*) of experience” (Coomaraswamy, 1987 p. 226). Similarly, “this ‘ancient space’ (*kha*) is identified with Brahman [which] is at the same time a plenum or pleroma (*pra*) such that ‘when plenum is taken from plenum, plenum yet remains’” (p. 226). Moreover, *cavity* is etymologically linked to *cave* which designates, along with *kha*, Zero: a symbol of Non-Being (*Wu Chi*). Thus, “to become like God (*homoiōsis theō*), so far as that is possible, is to ‘escape’” (Theatetus 176B; *phygē* [flight] here = *lysis* [release] = Skr. *Mokṣa*)” (Coomaraswamy, 1943, p. 23). Educationally, the word “understanding” to Plato implies an identification with our own consciousness on that “upon which the thing itself originally depended for its being. Such an identification, *rei et intellectus* [of reality and intellect], is implied by the Platonic distinction of *sunesis* [understanding, association] from *mathēsis* (learning)” (p. 68). And to tie this all back to a Buddhist meditative perspective:

The Tibetan term for consciousness is *shes pa*, which literally means “knowledge” or “awareness.” The etymology implies awareness of something, and this defines consciousness at the gross level. However, at subtler levels there may not be an object of awareness. This is analogous to the paradoxical state of thoughtless thought. (Varela, 1997, p. 50)

Thus concludes my presentation on Mindfulness, an ancient wisdom for the reconceptualisation of modern education in the complex world.

CHAPTER FIVE: FINAL REMARKS

If one observes the events of every day, I think it is fairly apparent that in the very attempt to solve the many problems with which we are beset, we only produce more problems; and it seems to me that as long as we do not understand the processes of thought, and are therefore unable to cleanse the mind, our problems will inevitably soar and multiply.

— Jiddu Krishnamurti

We see education gradually turning into a two-edged lie: the young ones pretend to study, the older ones pretend to teach. The mighty energy of the human spirit gets squeezed out by the rigidity and inflexibility of educational technology.

— Mikhail Petrovich Shchetinin

A need for imagination, a sense of truth, and a feeling of responsibility – these are the three forces that constitute the nerves of pedagogy.

— Rudolf Steiner

Is education possibly a process of trading awareness for things of lesser worth? The goose who trades his is soon a pile of feathers.

— Aldo Leopold

Only after the last tree has been cut down. Only after the last river has been poisoned. Only after the last fish has been caught. Only then will you find that money cannot be eaten.

— Cree Indian Prophecy

In closing, Krishnamurti called for a *revolution of the mind*. Yogi Swāmī Nityānanda Giri⁴⁶³ (2013) said “our main problem, the mental problem, [is] perhaps the greatest problem of the present age” (p. 10). And for Daoist sage Zhuang Zhou (Chinese: 莊周; 369 B.C.E. – 286 B.C.E.), “the mind of the Sage at rest becomes the mirror of the universe” (Coomarswamy, 1987, p. 52). None of these lecturers are “thinking” about logic. In the Kriyā-yoga lineage, Giri further stated that “mind is said to be of two types, *mano hi dvividhaṁ proktam*, pure and impure, *śuddhaṁ ca aśuddhaṁ eva ca*. Impure mind is with desires and resolves, *aśuddhaṁ kāmasaṅkalpam*, the pure mind is desireless, *śuddhaṁ kāmavivarjitam*” (p. 10). Since our intellect is greater than our mind, and the Self is greater than the intellect, “we have to bring our mind under the control of our discriminating intellect and the intellect under the control of the Self. Such a situation will bring only happiness” (p. 11). In order to develop the discriminating intellect we need more than faith and devotion (mental aspects), in particular, we need to absorb the mind into the vital force

(*prāṇa*) so that by support of our breath (*prāṇavāyu*), worship of our breath (*prāṇopāsana*), and breath practice (*prāṇakarma*) we can reach the state of *no thought* (*nirvicāra*) which leads to the automatic (as opposed to forced) suspension of breath (*kevala kumbhaka*). As Wilber stated, the *hard problem* of how the physical and mental interact, “is still the Cartesian question, and it is no closer to being solved today than it was in Descartes’s time, and for a simple reason: *it is a dilemma that is solved only in the postformal realms* [emphasis added]” (Wilber, 2001, p. 379) since “the subject-dualism *is not found in thought*, because thought itself is a product of this dualism, which itself *is generated in the very roots of the causal realm* and cannot be undone without consciously penetrating that realm” (p. 380). Therefore, “the causal knot or primordial self-contraction—the *ahamkara*—can only be uprooted when it is brought into consciousness and melted in the fires of pure awareness, which *almost always requires profound contemplative/meditative training* [emphasis added]” (p. 380).

It should be no surprise that we see mindfulness as being situated *last* in modern education when it is always situated *first* in contemplative traditions. In contemplative endeavours, it is up to everyone to probe into the ontological depths of reality. In modern scientific endeavours, our mind is divorced of all things, and our foundation becomes something external to ourselves and thus requires no participatory discipline. While material things are important and cannot be dismissed, a caricature of what seems overcome dissatisfaction is developed since it leads to a paradox: that which gives us material stability is precisely what is unstable and fleeting, while material happiness leads to unhappiness. So my first recommendation is to *slow down*. So much of our problems are reactionary to circumstances that are either superficial (improper body-mind identification) or a direct result of our continual mechanisation (external rectifications) which begets further mechanisation (ramifications). We are human beings, not machines, and our present

circumstances are indeed our inheritance, but not our future. The second recommendation is to apply ecological principles to the very framework that govern education and curriculum. It would not only incorporate interobjective and intersubjective sensibilities, but require a reversal of what curriculum has stood for, placating the industrial mentality that argues for stricter guidelines, standardisations, and certainty-based results that have developed alongside mechanical principles. The third recommendation would be to bring Eastern Mindfulness into sustained practice, recognising the role emotions, mentation, and contemplation have on our everyday lives. We cannot live on mentation alone. Not only do we need to teach mindfulness meditation to students, but to allow mindfulness to penetrate into pedagogical practice for teachers themselves in order to create a compassionate environment of self-inquiry. My final recommendation is to regain a spirituality we have too easily lost. In this way, the mind-body link (Model II) and integration (Model III) are indeed the most important factor for future educational theories and theorists.

It seems I began my paper 3 years ago as an environmentalist with a mathematical physics background and a spiritual leaning. Today I finish as a genuine spiritual seeker and aspirant with a sense of environmental duty and a love of qualitative mathematics. Western mindfulness may offer a path to relaxation, but does not offer a spiritual direction. Eastern Mindfulness, on the other hand, is directed toward spiritual goals, having as many paths as there are individuals. As the Buddha wrote: “All wrong-doing arises because of mind. If mind is transformed can wrong-doing remain?” Similarly: “One who truly loves himself will never harm another.” I now end with the *Dào Dé Jīng*.

為學日益，
 為道日損；
 損之又損，
 以至於無為；
 無為而無不為矣。
 故取天下者，
 常以無事；
 及其有事，
 不足以取天下。

*In pursuit of knowledge every day something is added.
 In the practice of the Tao, every day something is dropped.
 Less and less do you need to force things,
 until finally you arrive at non-action.
 When nothing is done, nothing is left undone.
 True mastery can be gained by letting things go their own way.
 It can't be gained by interfering.*
 Dào Dé Jīng, 48, Stephen Mitchell Translation

知不知，上；
 不知知，病。
 夫惟病病，
 是以不病。
 聖人不病，
 以其病病，
 是以不病。

*Not-knowing is true knowledge,
 (To understand yet not understand is transcendence.)
 Presuming to know is a disease.
 (not to understand yet understand is affliction.)
 First realize that you are sick;
 (the reason the sage is not afflicted is because he treats affliction)
 then you can move toward health.
 (as affliction. hence he is not afflicted).*
 Dào Dé Jīng, 71, Stephen Mitchell Translation (Red Pine Translation)

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Appendix A

Educational Quotations by Key Historical Theorists Organised by Birth Year

Author	Country	Quotations (Source: https://en.wikiquote.org)
Plato (427 B.C.E – 347 B.C.E.)	Greece	The direction in which education starts a man will determine his future in life.
		Music is the movement of sound to reach the soul for the education of its virtue.
		No man should bring children into the world who is unwilling to persevere to the end in their nature and education.
		If a man neglects education, he walks lame to the end of his life.
Aristotle (427 B.C.E – 322 B.C.E.)	Greece	It is the mark of an educated mind to be able to entertain a thought without accepting it.
		The roots of education are bitter, but the fruit is sweet.
		Education is the best provision for old age.
Zhuangzi (369 B.C.E – 286 B.C.E.)	China	Rewards and punishment is the lowest form of education.
Plutarch (45 – 120)	Greek	The very spring and root of honesty and virtue lie in good education.
Publius Syrus (1st century BC)	Freed Syrian Slave/Italy	It is only the ignorant who despise education.
Desiderius Erasmus (1466 – 1536)	The Netherlands	The great difficulty in education is to get experience out of ideas.
Michel de Montaigne (1533 – 1592)	France	I prefer the company of peasants because they have not been educated sufficiently to reason incorrectly.
		Make your educational laws strict and your criminal ones can be gentle; but if you leave youth its liberty you will have to dig dungeons for ages.
Galileo Galilei (1564 – 1642)	Italy	If I were again beginning my studies, I would follow the advice of Plato and start with mathematics.
John Locke (1632 – 1704)	England	Education begins the gentleman, but reading, good company and reflection must finish him.
		I have always thought the actions of men the best interpreters of their thoughts.
Voltaire (1694 – 1778)	France	Nature has always had more force than education. Judge a man by his questions rather than his answers.
Jean-Jacques Rousseau (1712 – 1778)	Genevan (Swiss)	We are born weak, we need strength; helpless, we need aid; foolish, we need reason. All that we lack at birth, all that we need when we come to man's estate, is the gift of education.
		Man is born free and everywhere he is in chains.
Edmund Burke (1729 – 1797)	Ireland/London	Education is the cheap defense of nations.
Thomas Jefferson (1743 – 1826)	USA	To penetrate and dissipate these clouds of darkness, the general mind must be strengthened by education.
Friedrich Schiller (1759 – 1805)	Germany	The key to education is the experience of beauty.
Georg Wilhelm Friedrich Hegel (1770 – 1831)	Germany	Education is the art of making man ethical.
Edward Everett (1794 – 1865)	USA	Education is a better safeguard of liberty than a standing army.
Horace Mann (1796 – 1859)	USA	A human being is not attaining his full heights until he is educated.
		Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery.
Ernest Renan (1823 – 1892)	France	The simplest schoolboy is now familiar with truths for which Archimedes would have sacrificed his life.
Mark Twain (1835 – 1910)	USA	Don't let schooling interfere with your education.
		Education consists mainly of what we have unlearned.
Henry Adams (1838 – 1918)	USA	Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts.
Friedrich Nietzsche	Germany	The doer alone learneth.

(1844 – 1900)		The surest way to corrupt a youth is to instruct him to hold in higher esteem those who think alike than those who think differently
Anatole France (1844 – 1924)	France	An education is not how much you have committed to memory, or even how much you know. It is being able to differentiate between what you know and what you do not. An education which does not cultivate the will is an education that depraves the mind.
Oscar Wilde (1854 – 1900)	Ireland/London	Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.
John Dewey (1859 – 1952)	USA	Education is not preparation for life; education is life itself. Education, therefore, is a process of living and not a preparation for future living. The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative.
Rabindranath Tagore (1861 – 1941)	Bengali	Don't limit a child to your own learning, for he was born in another time. The highest education is that which does not merely give us information but makes our life in harmony with all existence.
George Santayana (1863 – 1952)	Spain/USA	A child educated only at school is an uneducated child. Those who do not remember the past are condemned to repeat it.
Gilbert K. Chesterton (1864 – 1936)	U.K.	Education is simply the soul of a society as it passes from one generation to another. No man who worships education has got the best out of education... Without a gentle contempt for education no man's education is complete. Education is the period during which you are being instructed by somebody you do not know, about something you do not want to know.
H. G. Wells (1866 – 1946)	England	History is a race between education and catastrophe.
Ernest Dimnet (1866 – 1954)	France/USA	Children have to be educated, but they have also to be left to educate themselves.
Emma Goldman (1869 – 1940)	Russia/USA	No one has yet realized the wealth of sympathy, the kindness and generosity hidden in the soul of a child. The effort of every true education should be to unlock that treasure.
Maria Montessori (1870 – 1952)	Italy	Establishing lasting peace is the work of education; all politics can do is keep us out of war.
Bertrand Russel (1872 – 1970)	USA	Men are born ignorant, not stupid. They are made stupid by education. We are faced with the paradoxical fact that education has become one of the chief obstacles to intelligence and freedom of thought.
Robert Frost (1874– 1963)	USA	Education is hanging around until you've caught on. We have an obligation and a responsibility to be investing in our students and our schools. We must make sure that people who have the grades, the desire and the will, but not the money, can still get the best education possible.
Albert Einstein (1879 – 1955)	Germany	Education is what remains after one has forgotten what one has learned in school. It is a miracle that curiosity survives formal education.
Virginia Woolf (1882 – 1941)	England	If we help an educated man's daughter to go to Cambridge are we not forcing her to think not about education but about war? - not how she can learn, but how she can fight in order that she might win the same advantages as her brothers?
Ezra Pound (1885 – 1972)	London/France	Real education must ultimately be limited to men who insist on knowing, the rest is mere sheep-herding.
Jiddu Krishnamurti (1895 – 1986)	India	There is no end to education. It is not that you read a book, pass an examination, and finish with education. The whole of life, from the moment you are born to the moment you die, is a process of learning. It is no measure of health to be well adjusted to a profoundly sick society. Tradition becomes our security, and when the mind is secure it is in decay. A consistent thinker is a thoughtless person, because he conforms to a pattern; he repeats phrases and thinks in a groove.
Jean Piaget (1896 – 1980)	Switzerland	The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done.
C.S. Lewis (1898 – 1963)	Ireland	Education without values, as useful as it is, seems rather to make man a more clever devil.
Robert M. Hutchins (1899 – 1977)	USA	The object of education is to prepare the young to educate themselves throughout their lives.
John W. Gardner (1912 – 2002)	USA	Much education today is monumentally ineffective. All too often we are giving young people cut flowers when we should be teaching them to grow their own plants.

Daniel J. Boorstin (1914 – 2004)	USA	Education is learning what you didn't even know you didn't know.
John F. Kennedy (1917 – 1963)	USA	The goal of education is the advancement of knowledge and the dissemination of truth.
Malcolm Forbes (1919 – 1990)	USA	Education's purpose is to replace an empty mind with an open one.
Isaac Asimov (1920 – 1992)	Russian/USA	Self-education is, I firmly believe, the only kind of education there is.
James A. Baldwin (1924 – 1987)	USA	Education is indoctrination if you're white - subjugation if you're black.
Leo Buscaglia (1924 – 1998)	Italian American	Change is the end result of all true learning.
Russell Baker (1925 – present)	USA	An educated person is one who has learned that information almost always turns out to be at best incomplete and very often false, misleading, fictitious, mendacious - just dead wrong.
Cesar Chavez (1927 – 1993)	Mexican American	Real education should consist of drawing the goodness and the best out of our own students. What better books can there be than the book of humanity?
Daisaku Ikeda (1928 – present)	Japan	Dialogue and education for peace can help free our hearts from the impulse toward intolerance and the rejection of others.
Alvin Toffler (1928 – present)	USA	The illiterate of the future will not be the person who cannot read. It will be the person who does not know how to learn.
Martin Luther King, Jr. (1929 – 1968)	USA	The function of education is to teach one to think intensively and to think critically. Intelligence plus character - that is the goal of true education.
Thomas Sowell (1930 – present)	USA	Too much of what is called 'education' is little more than an expensive isolation from reality.
Kofi Annan (1938 – present)	Ghana	Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.
		Education is a human right with immense power to transform. On its foundation rest the cornerstones of freedom, democracy and sustainable human development.
Desmond Tutu (1931 – present)	South Africa	It is our moral obligation to give every child the very best education possible.

Appendix B

Fractal Geneology: Tree of Didactic Metaphors Conceptualised by Davis (2004)

Conceptions of Teaching	educating nurturing fostering tutoring	disciplining indoctrinating inducting training guiding	instructing informing edifying directing lecturing	schooling inculcating conditioning training remediating	facilitating mediating mentoring modeling initiating	emancipating liberating giving voice pedagogy	improvising occasioning structuring framing participating	conversing listening mind caring
The means by which we come to know	Mysticism	Religion	Rationalism	Empiricism	Structuralism	Poststructuralism	Complexity Science	Ecology
The source of knowledge	Gnosis		Episteme		Intersubjectivity		Interobjectivity	
The nature of the universe	The Metaphysical				The Physical			
	Western worldviews							

Ecologically, each level is embedded in the later. So the NATURE OF THE UNIVERSE is embedded in THE SOURCE OF KNOWLEDGE, which is embedded in THE MEANS BY WHICH WE COME TO KNOW, which is finally embedded in CONCEPTIONS OF TEACHING. Ecological discourses (to date) justify the following terms—which Davis references but omits in the table—for *ethical action* in teaching:

- ***mindful participation*** (Eastern thought in neuro-phenomonological research)
- *conversing* (Sylvia Ashton-Warner)
- ***caring*** (Nel Noddings)
- *pedagogical thoughtfulness* (Max Van Manen)
- ***eco-justice*** (Chet Bowers)
- *hermeneutic listening* (Brent Davis)

To Davis, keeping in mind his *metaphysis-in-physis* prejudice, the metaphysical universe:

Is seen to be complete and unchanging—and, hence, understood in terms of other-worldly ideals and essences. Collective knowledge and personal learning tend to be framed in terms of convergences onto ultimate truths. They are thus understood as acquisitions and accumulations of absolute facts. Thought is seen to be uniquely human. (2004, p. 185)

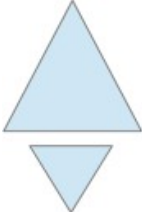
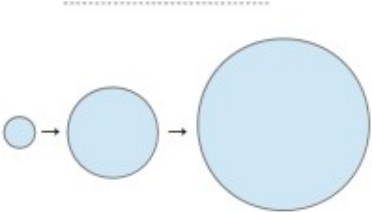
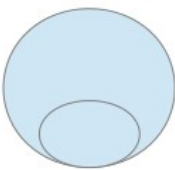
And the physical universe:

Is understood to be emergent—and, hence, described in terms of transformations [read: translations] and diversifications. Collective knowledge and personal learning tend to be framed in terms of divergences—that is, as opening up of new possibilities. They are understood as processes that occur constantly, on and across many levels of organization. (p. 185)

Terminologies that are **bold** were emphasised throughout my paper.

Appendix C

The Three Hierarchic Frameworks of Modern Education

Mindfulness (yin-yang)	Modern (too yang-in-yin)	(W)holistic (too yin)
Mindbody integration complexity (holons) qualitative superiority <i>trans</i> -rational inward revolution Kosmic agency-in-communion becoming toward Being integrative (mindbody) supra-human Eco-Noetic Unity in multiplicity NATURE spiritual metaphysics body and mind in Heart integral wisdom <i>supra</i> -rational intellectual intuition product of the process outward turned inward (and back: nondual Platonism) depth (and span) <i>non</i> -instrumental Knowledge <i>pre</i> -judgment synthesis whole as an anterior concept ⁴⁶⁴ contemplative superiority centaur vision logic	mind from body dissociation complicated (parts) quantitative superiority rational outward revolution stunted agency (reason only) becoming dissociative (mind vs. body) infra-human Ego-Enlightened uniformity Nature mechanical physics mind in brain empirical knowledge intellection (ratiocination) product outward (a world out there: Cartesian <i>cogito</i>) span instrumental known judgment (discrimination) analytical whole as a posterior concept active superiority Egoic rationality	Mind and body differentiation & link (w)holism (wholes / interconnections) balance between quantity and quality <i>pre</i> -rational and rational both Gaian participation (communion) becoming differentiation (mind and body) human Eco-Romantic multiplicity nature and Nature ecological biology mind and body phenomenological lived experience sub-rational intuition process inward toward outward (Aristotelian) span - knower - - whole is greater than sum of its parts balance between both Eco mythical
		

It is important to realize that the upper triangle, the discontinuous (dotted) line, and the continuous line, all represent the present hierarchic models. For instance, the dotted line is in the continuous line, which is the base of the triangle. In this way they are hierarchic. Lower images are the schooling models that correspond to such worldviews.

Appendix D

A Summary of Some Metaphysis-in-Physis Errors

<u>modern usage</u>	→	<u>proper usage</u>
{religion}	→	{exoteric (sentimentality), esoteric}
{static}	→	{ static fixed, stasis}
{transformation}	→	{ transformation translation, transformation}
{timeless}	→	{ timeless time-independence, timeless}
{irrational}	→	{sub-rational, supra-rational}
{intuition}	→	{vital intuition, intellectual intuition}
{no action}	→	{actionless, actionless action (non-action)}
{uniformity}	→	{uniformity (<i>unit</i>), Unity}
{rationality}	→	{reason (<i>manas</i>), intellectuality (<i>Buddhi</i>)}
{Nature}	→	{ <i>Natura naturata</i> , <i>Natura naturans</i> }
{metaphysics}	→	{ metaphysics pseudo-metaphysics, metaphysics}
{equilibrium}	→	{ equilibrium far-from-equilibrium (<i>becoming</i>), equilibrium (<i>Being</i>)}
{progress}	→	{evolution, involution}

Strikeouts show that the word is used incorrectly (*pattern 3*) and usurps the spiritual meaning.

Appendix E

Scientific Findings for Physical and Emotional Well-Being of Individuals Practicing Mindfulness and Compassion Meditation

Various scientific studies for the physical and emotional well-being of individuals practicing mindfulness meditation and/or compassion meditation. All details were found by attending lectures given by Stanford mindfulness and compassion researcher Kelly McGonigal at the 2012 and 2013 Yoga Conference held in Toronto.

1. The brain can be trained for increased self-control and willpower through breath focus (Dickenson, Berkman, Arch, & Lieberman, 2013).
2. Increased gray matter volume in those who practice yoga/meditation (Hölzel et al, 2011).
3. Shifting perception (meta-awareness) from external threat to internal conflict slows the breath and heart rate, increases self-reflection, and prevents automatic action (Long & Lehrer, 2003).
4. Choosing a compassionate point of view increases vagal tone/HRV (increased activity of the vagus nerve) and leads to empathy, forgiveness, gratitude, and so on (Witvlieta, Knolla, Hinman, & DeYoung, 2010).
5. The brain responds to practice. Meditation trains the brain to make an ‘effortful’ state more of an automatic trait. Practice changes the structure of the brain (Kelly McGonigal, personal communication, March 31, 2012)
6. Cortical gyrification enhances neural processing and is positively correlated with meditation which leads to better integrated and efficient brains (Luders et al, 2012).
7. Loving-kindness meditation results in more positive feelings (calm, happy, loving), less negative feelings (angry, anxious, unhappy), greater connectedness to other people, reduced depression, and improvement of physical health and relationships (Hutcherson, Seppala, & Gross, 2008; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).
8. Mindfulness training alters the neural expression of sadness (Farb et al, 2010).
9. Greater activation of the experiential network of the brain and a greater de-activation in the evaluation network of the brain so patients with anxiety disorders can reduce self-criticism and increase self-esteem (Goldin & Gross, 2010).
10. Compassion meditation has shown to reduce (lower back) chronic pain (Carson et al, 2005).
11. Mindfulness training and compassion meditation focused on values and life meaning, recognising emotions in the self and in others, and understanding one’s own emotional patterns results in lower blood pressure, decreased depression and a better recognition of emotion expressions (Kemeny et al. 2012).
12. Compassionate mind training has been shown to reduce self-criticism, depression and anxiety, and increase self-compassion in individuals being treated for personality/mood disorders who had engaged in serious self-harming behaviours (Gilbert & Procter, 2006).
13. Compassionate mind training has helped individuals with schizophrenia to feel less inadequate in relation to their malevolent voices and to feel safer around real people. The voices also became more reassuring and less malevolent (Mayhew & Gilbert, 2008).
14. Loving-kindness meditation results in a decrease of negative symptoms and an increase in positive emotions, self-acceptance and more satisfaction in life for individuals with schizophrenia disorders (Johnson et al, 2011).

Appendix F

Outline of Rare Transcript of Lectures on Education Given by Osho

I came upon a rare transcript of dialogues titled *Revolution in Education* that was given by Osho between the years 1967 and 1969. I feel it fortuitous to share his insights, albeit briefly. He began by stating he was “neither an educationist nor a social reformer” (para. 1), calling it *good fortune* because he could penetrate beyond their limited and prejudiced scope to look at the *root problems* directly, not superficially. He is also a man of the spiritual East as opposed to the scientific West, so his point-of-view—which is admittedly also limited—is also significant as regards its uniqueness to Westernised education. To begin, for those that follow scripture, “the solutions become more important than the [root] *problems* [emphasis added]” (para. 3). Although he stated outright that:

The possibility of any truth about education dawning on educationists should be taken *as almost nil*. They have been thinking for the last five thousand years, but the present condition of education, its structure, and the type of man [*sic*] that is produced, is so totally wrong that it is natural that only unhealthy and confused leaders are born out of it all. The thinking that is done by the sociologists is also sick and unhealthy; otherwise human beings, their life and their thinking, would have been quite different [emphases added]. (para. 2)

The teacher-student relationship “has proven dangerous [since] the teacher is a slave and the society is the master or owner. ... Society wants the teacher to inculcate the old jealousies, old enmities and old thoughts coming down from the past thousands of years into the minds of young children” (para. 4). From the teacher’s perspective, “The disgrace is that the diseases from which the past century suffered are passed on to the current century.... [T]he old structure, the vested interests connected with that structure, and the blind beliefs established ... do not want to die” (para. 5). Naturally, educational reformers would state this is precisely why we have secular education, not realising these belief structures fall under scientific prejudices as well, once they themselves inherited, whose inheritance is over four centuries old! The result according to Osho, is a material and economic accumulation of wealth increases side-by-side mental poverty, since the “mental faculties do not develop ... in a small child [since] there is the burden of a culture five thousand years old. The very life of that child is crushed under that burden”⁴⁶⁵ (para. 8). Therefore, “the flame of consciousness cannot be lit and the individuality of the child cannot develop” (para. 8). Closely matching Krishnamurti’s pedagogy:

According to me [Osho], one can become a teacher in the right sense only if he has within him a powerful, *burning flame of rebellion*⁴⁶⁶. A teacher who has no such flame of rebellion within him will become an agent of some policy, some interest — be it of society, be it of religion, or be it of politics. ... You may be teaching the children, as is taught all over the world, that they should love others. But have you ever thought that *the whole structure of your education is built not on love but on competition?*⁴⁶⁷ ... Competition is a form of *envy*, a sort of burning sensation, jealousy [emphases added]. (para. 18-21)

In short, the *image-concept* of education for Osho is that “every person is pulling the other down. ... [T]here is no greater violence than that of pushing oneself ahead by pulling others back. But we are teaching this violence and calling it education” (para. 32). Thus, “better to stop educating completely. Perhaps that way a man [*sic*] will be better off. An uneducated man [*sic*] living in a forest will be a better man [*sic*] because he [*sic*] has more love and less competition, more heart and less mind” (para. 34). These *factories of education* are “where sick minds are created, and such sick minds are leading the world into a ditch” (para. 36). The present situation is a product of our education through temptation and the ideal that “there is no place for unsuccessful people” (para. 42). Success, then, has become a socio-cultural gravitational centre, one built on *comparison*. Osho calls this the *wrong path* by “creating a

desire in man [*sic*] to be like someone else;⁴⁶⁸ and the fact is that no one has been or can be like any other man” (para. 55). Similarly, discipline destroys awareness, consciousness, and wisdom and develops mechanical patterns in humans. They become dead. But an education not built on discipline, but love, will bring about self-discipline, it will arise with consciousness.

Osho becomes more serious, stating that the *religious* revolutions, *political* revolutions, and *economic* revolutions as “experiments ... made so far in four or five thousand years for the welfare of humanity *have all been failures*. Up to now this one experiment has not been made, and that is the *revolution in education* [emphases added]” (para. 67). Education has divorced ourselves from nature, which he stated the former is the root cause unnaturalness. In a maximisation and efficiency paradigm of technological prowess, “when this unnaturalness *is considered refinement and culture*, [it is] no wonder if even this act of imposition takes the color of a virtuous deed. *When a sin masks itself as virtue, it becomes very dangerous* [emphasis added]” (para. 96). In education “an unhealthy soul is residing; otherwise the life of human beings would not have been so full of hate, violence, and *irreligiousness* [emphasis added]” (para. 98). To close Osho’s vast⁴⁶⁹ view on education, he stated “Doubt is the beginning, trust is the end. ... So whosoever begins with doubt,⁴⁷⁰ sometime or other does reach trust. But one who begins from trust [especially scientific trust] reaches nowhere” (para. 349-351). Truth is “a continuous search. It is an investigation with extreme *awareness*. Truth⁴⁷¹ cannot be transferred by one to the other, it has to be searched for by one’s own self” (para. 354). Therefore:

I [Osho] would like a system of education in which the goal is day-to-day living. There is nothing like future: whatsoever I am living today is all and everything. ... From the very first day of our education, all the efforts should be directed towards increasing our recognition and knowledge of what truth is. We should know how to expose the falsehood and should know why we should expose the falsehood. Our endeavour should be to increase the respect and dignity of truth. *Geography, mathematics, chemistry and physics are not as important as the meditative awareness*. [emphasis added] (para. 819)

I am inclined to agree.

Endnotes

- ¹ He is also known as the *first truly authentic interpreter of many Eastern doctrines in the West* (Guénon, 1946/2004a).
- ² Manly P. Hall (1901 – 1990) was a Master Mason of the 33rd degree and the first to open my eyes, in his book *The Secret Teachings of All Ages*, to the fact that Pythagoras was not a mere mathematician who discovered the Pythagorean Theorem, but a spiritual initiate of the highest degree. Such is the result of decontextualised Western education! Without context and Western progress in mind, he was just an early mathematician.
- ³ In Masonry we have 32 grades (and a 33rd for distinction) that connect with the spinal column. In Daoism we have *true man (chen jen)*, the mediator between Heaven and Earth (of the Far-Eastern tradition), “who has attained the fullness of the human state” (Guénon, 1946/1991, p. 124) which is equivalent to the *primordial state* or the Judea-Christian *Edenic state*. Beyond *chen jen* is *transcendental man* or *spirit man (shen jen)* along the Middle Way. These are the two highest grades of the Daoist hierarchy. The lower grades, in descending order, are *man of the Way (Tao jen)*, *man of talent (ch'u jen)*, and *wise man (cheng jen)*, which is the highest grade of Confucianism, thereby creating continuity between the two. The Confucian hierarchy comprises of the *man of letters (chu)*, the *learned man (hsien)*, and finally the *wise man (cheng)*.
- ⁴ The thought always gave me shivers down my spine when I read this! I was always fond of the idea of a supra-sensible reality.
- ⁵ Since there is nothing conceived beyond the mind, no transformation is possible, and all ‘transformative education’ is entirely anti-metaphysical and horizontal, as opposed to vertical, which is implied by the proper etymology of the word *trans-form*.
- ⁶ f.f. section *Stephen Toulmin's thesis on Modernity*.
- ⁷ f.f. section *The limitations of the mental*.
- ⁸ An artist or craftsperson (artisan). These two definitions being a modern deviation, since “to the ancients the *artifex* was indifferently the man [*sic*] who practised an art or a craft; but he [*sic*] was, to tell the truth something that neither the artist nor the artisan is today, ... at least originally, his [*sic*] activity was bound up with principles of a much more profound order [emphasis added]” (Guénon, 1945/2004, p. 55). Connecting principles, science, and art was the “formula postulated as a fundamental axiom by the builders of the Middle Ages, *ars sine scientia nihil* [art without science is nothing]; the science in question is of course traditional science, and certainly not modern science, the application of which can give birth to nothing except modern industry” (p. 56). Today, however, the axiom is closer to *scientia est unum et ars aliud* (“science is one thing and art another”).
- ⁹ In other words, we are trapped in a pattern we do not know exists and therefore perpetuate the pattern. f.f. section *Cups and Plates*.
- ¹⁰ It is interesting to note that language permits (or constricts) us to corroborate *sensibility* with *reason*. The phrase “let us be rational” is synonymous with “let us be sensible;” yet, no one seems to remember that sensibility is nothing else but to use our senses, not your supra-senses!
- ¹¹ Unless otherwise noted, any reference in this paper to the masculine gender shall be taken to include the feminine and any reference to the feminine gender shall be taken to include the masculine.
- ¹² It is interesting that in many developed countries we are seeing a very serious rise in gaming; especially in males. Thousands of hours are poured behind the computer in order to create an environment *co-extensive* with ourselves. If only we could integrate this trend as opposed to seeing it as a reaction.
- ¹³ It may be remarked that we live in a post-Industrial world and that the computer allows human creativity in its own accord. A situation where manifested objects may be used for good or bad. I wish to merely add how pervasive computing has become in the lives of students. Even if computing allows the rare “tool” for the mathematician, author, or any only disciple to present their ideas, how many of these individuals do so with the intention to transcend their individuality? What we generally see instead is *hyper-individualism*.
- ¹⁴ The maternal symbolism in the cosmological order is recognised by *Theotókos* (Greek: Θεοτόκος) which means *God-bearer* or *Mother of God* and is equivalent to Mary, mother of Jesus. Similarly, the mother of Buddha and Hermes Trismegistus (Thrice-Great) is *Māyā* and *Maia* respectively.
- ¹⁵ According to Guénon (1946/2004a), “we will recall that the word *Avatāra* expresses the ‘descent’ of a principle into the domain of manifestation, and also that the word ‘seed’ is applied to the Messiah in many biblical texts” (p. 298).
- ¹⁶ “This *pinda*, as permanent and indestructible ‘seed’ of the being, is moreover identified with the ‘kernel of immortality’ which is called *luz* in the Hebrew tradition” (p. 299). The *Luz* is asleep at the base of the spine and rises to the Heart (2nd birth) and third eye (3rd birth) upon our recovery as a spiritual or divine being. The connection with the *śakras* (“wheel”) and kundalini energy is evident. In esoteric Christianity we the Dove which also represents *fire* that descends as Grace as opposed to the kundalini *fire* that ascends. How interesting that spiritual fire can be activated in two ways!

- ¹⁷ As Wikipedia stated (and a host of various authors too legion to cite), “Dualism and monism are the two major schools of thought that attempt to resolve the mind–body problem. Dualism can be traced back to Plato, and the *Sankhya* and Yoga schools of Hindu philosophy, but it was most precisely formulated by René Descartes in the 17th century” (as retrieved from https://en.wikipedia.org/wiki/Philosophy_of_mind, August 4, 2013).
- ¹⁸ While in this limited perspective ... how can theorists understand the soul-body split that Plato taught? Again we see self-perpetuation at work.
- ¹⁹ As Wilber (2000b) stated, “this ‘exuberant this-worldliness’ is what so many (I would say all) of Plato’s ‘ecological critics’ have missed. They set up a straw Plato and then manfully, triumphantly, boisterously knock it down, and all congratulate themselves on their this-worldly victory. But Plato is not so easily manhandled” (p. 334).
- ²⁰ I will talk further on these two *paths*. Modern science, derived by the all to fancifully termed *Enlightenment* era, is on the contrary at the opposite spectrum of radical Enlightenment! Worse, in such a worldview, the ascending path does not even exist!
- ²¹ Saint Augustine of Hippo (354 – 430), one of the greatest thinkers in the Western tradition, spoke thusly: “Everyone becomes like what he loves. Dost thou love the earth? Thou shalt be earth. Dost thou love God? Then I say, thou shalt be God” (as cited in Wilber, 2000b, p. 370). As Wilber (2000b) himself says, “Augustine is no ontological dualist, but he [did] offer us a brutal choice.... And is there no way to be both?” (pp. 370-371).
- ²² f.f. subsection *On individualism*.
- ²³ Nel Noddings (1929 – present) is an American feminist, educationalist, and philosopher, best known for her pedagogical focus of *caring*. f.f. Table A2.
- ²⁴ There is also non-reflexive praxis which tends to maintain the status quo in Marxian thought.
- ²⁵ f.f. subsection *The metaphors of teachings*.
- ²⁶ Aristotle reserved it as the *last* of the three basic activities of humans. The first was *theoria* (Greek: *θεωρία*) which is a Greek synonym for *contemplation* and whose aim was Truth. The second was *poiesis* (Greek: *ποίησις*), etymologically derived from *ποιέω*, “to make,” and whose aim was *production*. The last was *praxis* (Greek: *πράξις*) whose aim was *action*. Aristotle also distinguished *eupraxia* (Greek: *εὐπραξία*, “good praxis”) from *dyspraxia* (Greek: *δυσπραξία*, “bad praxis”). f.f. *Contemplation and action*.
- ²⁷ f.f. subsection *Rationalism revisited*.
- ²⁸ His teachings also emphasised that the time is ripe for humanity to come to experience spiritual realities *during* terrestrial existence, seeing in the culture of materialism a *necessary* step toward greater freedom as opposed to something evil. I admire his view that takes materialism into spiritual account.
- ²⁹ As Hall (2010b) noted, “Men and women are divided into three categories that resemble modern psychological types. A small number are spiritual (pneumatics) who are ready for Gnosis and liberation. On the opposite end of the psycho-spiritual scale we find those who are earthbound and materialistic (hyletics) and who recognize only physical reality. Between these two poles, as it were, we find those who live largely in their mental-emotional nature (psychics). Such people expect rules of conduct to redeem them” (pp. 13-41). As Schuon (1980/2006) noted: “*Hylikos* (Greek): a person in whom the material element (*hyle*) predominates over the spirit and the soul” (p. 178); “*Psychikos* (Greek): one in whom the element soul (*psyche*) predominates over the spirit and the body” (p. 179); and “*Pneumatikos* (Greek): a ‘spiritual man’; one in whom the element spirit (*pneuma*) predominates over the soul and the body (cf. I Thess. 5:23; I Cor. 2:14-15)” (p. 289).
- ³⁰ In Platonism, “through dreams one reaches truths about one’s present, past, and future as well as dreams of a visionary nature. To prepare the soul for such meaningful dreams, Plato adds, it is necessary to temper unnecessary desires by reason in conjunction with law and furth that prior to falling asleep, to reflect on ‘worthy reasoning and inquiries’ so that it may empower the rational [intellectual/higher mental] part of the soul (Plato, Republic, 571d-572b)” (Grimes, 2007, p. 36).
- ³¹ f.f. final remarks in *Chapter Five: Final Remarks*.
- ³² It is interesting to realize that atheism is really a cult of Reason. This can only have occurred in the interpretive set {myth, rational}.
- ³³ To Krishnamurti, “Religious education in the true sense is to encourage the child to understand his [*sic*] own relationship to people, to things and to nature. There is no existence without relationship [*pratīyasamutpāda*]; and without self-knowledge, all relationship, with the one and with the many, brings conflict and sorrow” (1981. p. 29). To many this identification is absurd! It would be absurd to me too when I was an atheist (for sixteen years).
- ³⁴ See Alan Wallace on Csikszentmihalyi’s *flow theory*; f.f. *Contextualising eastern mindfulness and western mindfulness*.

35 Furthermore, “the importance of a psychic symbol is, and has been, known in all mystical and religious systems throughout the world. This is the reason that there are so many deities, mantras, etc. They are all intended as a point on which the mind can be fixed to induce meditation. This is why idol worship is so widespread in the world. It is intended, though few realize it, to act as a focal point for concentration of the mind” (Saraswati, 2009a, p. 833).

36 Thus a rite “is, etymologically, that which is accomplished in conformity with ‘order’, and which consequently imitates or reproduces at its own level that very process of manifestation” (Guénon, 1946/2004b, p. 27).

37 The picture shows a man’s head placed in a furnace with impure thoughts aflame in smoke; the heat and pressure remove all impure thoughts.

38 Also known as *imprints* (Tibetan: *bag chags* or *bakchak*). These latent propensities “are the habitual tendencies created by *karma*, which are said in the Yogācāra system to reside in the foundation consciousness” (Varela, 1997, p. 234). Karma, far from being *fatalistic*, is causal-level manifestations.

39 f.f. subsection *Contextualising Eastern mindfulness and Western mindfulness*.

40 Francisco Varela was a neuro-phenomenologist who co-developed the Santiago Theory of Cognition with his mentor and colleague in Chile.

41 The full list includes Jerome (“Pete”) Engel Jr., Jayne Gackenbach, John Halifax, Thupten Jinpa, Joyce McDougall, Charles Taylor, and Alan Wallace.

42 “Only about [58%] of people have had a lucid dream once in their lifetime [and 21%] once or more a month” (Varela, 1997, pp. 103-104).

43 To begin, Egypt is no longer a primitive society *barely emerging* from civilization (West, 1993). The construction of the pyramids could not be constructed nor aligned with such astronomically and geometrical precision with our current technologies (West, 1993). To picture stones weighing one to forty tonnes being tossed around every few seconds is quite illogical yet has passed relatively unnoticed. Schwaller De Lubicz has shown that temples were initiatic buildings and not meant as tombs for the Pharaoh (West, 1993). And the Sphinx, due to water erosion and the astrological significance of the constellation Leo, *does not date back 6,000 years*; rather, from 10,500 B.C.E. or in likelihood before the end of our last Ice Age, a precession earlier (to match the constellation Leo): roughly 36,500 B.C.E.! Perhaps, according to Drunvalo Melchizedek (2000a, 2000b), it is farther back still: *millions* of years (f. f. section *Creationism and evolutionism* for the likelihood of this claim to even be considered)!! As West concluded, Dynastic Egypt is an *inheritance* of prehistoric magickal and symbolical wisdom, endowed with sacred geometry, numerology, astronomy (since astrology and astronomy were synonymous prior to the Greco-Latin epoch), and consciousness that rival and in many ways surpass modern civilization. The precision that these ancient structures boast with simple bronze tools is not only illogical, but a testament that Egypt offered wisdom to Plato, and Plato to us. The lesson to learn in all of us is that our conceptions and models should support evidence ... yet it is often the reverse!!!

44 It is true that fascination with history is unique to the human species; but this history affects all life on Earth. That is my meaning.

45 The mystery deepens when isolated African tribes (such as the Dogon), parallel Egypt, modern astronomy, and quantum mechanics (Scranton, 2003).

46 Those of us that grew up on the Westernised (read: exoteric) account of Plato would be surprised to see a connection between spirituality and Plato!!

47 The *Yogi*, like the *Sufi*, is actually beyond the primordial state, and thus yoga does not necessarily align with *paideia*, but what comes directly thereafter.

48 f.f. section *The Limitations of the Mental*.

49 If we reinstate the *qualified* Kosmos to its proper conception, the *Nous* comes forth naturally (see Figure 22). But, in a collapsed and *disqualified* cosmos, *Nous cannot exist*, *soul* collapses to *mind* (*prefrontal cortex*), and, due to its backward nature, in an empirical perspective *mind* collapses to the brain.

50 It may be of interest to know that Grimes (1996) paper on *Phædo* was rejected with the following explanation: *If Pierre Grimes is right about his understanding of the Phædo, that is 2,000 years of Western scholarship that is simply wrong. A definite flaw in the peer-reviewed system!*

51 Of interest is that students are never taught to consider that we live in a time that predates another Copernican-scale revolution! f.f. *Cups and Plates*.

52 f.f. *Curriculum: A Sophistication or the End Result of the Mechanisation Process?*

53 Guénon would associate the localisation of the Hebraic *luz* at *ājñā śakra* the *third* birth and at *hridaya* (*heart*) *śakra* the *second* birth.

54 Not to be confused with suicide, which, to the Greek philosophers, was an abomination. As Schuon (1996/2006) wrote that “to ‘ascend up to heaven’ is to ‘become Oneself’, that is, to become what one had

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- never really ceased to be inasmuch as the essence of the ego is the Self, the ‘Life’ we obtain only by losing the life of the ‘me’. For Plato-Socrates, the ‘true philosopher’ is he who has consecrated himself to the ‘study of the separation between the soul and the practice of dying’; it is he who withdraws from the bodily—hence from everything in the ego that is the shadow or echo of the surrounding world—in order to be no more than absolutely pure soul, immortal Soul, Self: ‘The Soul-in-itself must contemplate Things-in-themselves’ (Phaedo). Thus the criterion of truth—and the basis of conviction, this reverberation of Light in the ‘outward man’—is the Truth as such, the pre-phenomenal Intelligence by which ‘all things were made’ and without which ‘was not anything made that was made’” (p. 68).
- 55 This is an unfortunate use of language which led to all the dualistic interpretations on Plato. There is not really a separation, but a distinction (*abhedābheda*). If it were not so, we would not see metaphysical attributes with their physical correlates (Wilber, 2001) such as the empirical brain!
- 56 “The intermediate state between death and rebirth, where the mindstream wanders in the form of a ‘mental body’ while seeking a new embodiment. The bardo is considered to be an important opportunity for tantric practice” (Varela, 1997, p. 228).
- 57 One thing that seems to be similar across all spiritual thought today is that our physical life is a chance to investigate spiritual realities from a physical point of view. Something that simply cannot be done when existing in the *bardo*! How lucky are we to be alive!
- 58 f.f. Figure 25.
- 59 Symbolically, the ray (*Buddhi*) of the Spiritual Sun (*Ātmā*) cannot be detached from either the sun or our existence as manifestation of our Being.
- 60 I have noticed that Wilber often is utilising evolution and involution as opposite directions to what Eastern sages ascribe to them.
- 61 As Hameed Ali stated “Jung got very close to [high archetypal] essence and its various manifestations *but stayed on the level of imagination*. So he fell short of realizing [archetypal] essence and living it, and his psychology remained a *mental construct* not directly connected with the presence of essence [emphases added]” (as cited in Wilber, 2001, p. 266).
- 62 As Guénon (1962/1995) stated, “the etymological meaning of the word *angel* (in Greek *aggelos*) is ‘envoy’ or ‘messenger’, and that of the corresponding Hebrew word *mal’akh* is the same” (p. 367). Thus, the angelic order is something *within us* and not *apart from us*. It is by “participation in the Principle that they [angels] possess in reality all that constitutes their [our] being, so much so that when this participation goes unrecognized there no longer remains anything but a purely negative aspect, which is like a kind of *inverted shadow* [emphasis added] in relation to that being itself” (p. 257).
- 63 The prevalent quotes that spoke to me at the time were “the religion of the future will be a cosmic religion. It should transcend personal God and avoid dogma and theology” and “religion is a pathless journey.” Although I still believe the latter, I no longer accept the former beyond the context of combating a “my God is better than your God” mentality. For context, I was still an atheist at this point and I consider myself an expert in atheism if one is to define “expert” as the person who has “made every mistake in their field.” So when I embrace spirituality—which I never truly lost since I was Buddhist, although I viewed Buddhism more as a sacred philosophy than a metaphysical tradition—and religion, it is not because I am a theist against atheism, but because I *was* an atheist! Similarly, I advocate veganism not because I am a vegan, but because I was a meat eater!
- 64 One could go further, depending on their *prejudice*, and label religion in education or religion in general as immoral, oppressive (dogmatic), patriarchal, fear-laden, and irrational: devoid of genuine (read: scientific) intellectualism. This is where I began: assuming naturalism explained religion.
- 65 As an aside, regarding medication, the modern mentality stops at pharmacology, the pharmaceutical process which isolates and extracts the polymer to strengthen the curative medicinal value. Since it is based on chemistry, side-effects will naturally result at the biological level. Whereas spagyric plant remedies, from Greek origin: “*spaō*, to draw out, to divide; and *ageirō*, to gather, to bind, to join” (Junius, 1986, p. 1), separate, purify, and recombine; plant remedies retain the quality of the species with “an increase and a release of certain curative powers” (p. 1). Hence, chemico-analysis stops at the *solve* and misses the *coagula* to use a Hermetic phrase, though one must not confuse the vegetative spagyria science with the human science of alchemical spirituality, though analogies do exist. Moreover, it is interesting that in the Chinese system of *yin-yang* medicine, a herb that is not toxic is not considered medicinal; such a contrast to Western medicine! For a body to be ill it must be off-balance (too *yin* or *yang*), thus requiring a herbal remedy with the same off-balanced severity only in the opposite polarity. And frankly, Western pharmaceuticals are toxic.
- 66 The *Ouroboros* is an ancient symbol depicting a serpent or dragon eating its own tail.
- 67 A travesty in Westernised schooling is the philosophical insights of theorists are divorced from their equations: de-contextualising the knowledge.

- 68 As Heisenberg said, “What we observe is not nature itself, but nature exposed to our method of questioning” (n.d.).
- 69 Wilber (2000b) emphasises the difference between *human nature*, sensory-empirical *Nature* (birds, bees, flowers and trees), and metaphysical *NATURE*.
- 70 This reminds me of the philosophical insight of Heraclitus (Greek: *Ἡράκλειτος*) of Ephesus (c. 535 B.C.–475 B.C.), whose allusion in *Cratylus*, a work of Plato, depicts the world in *universal flux* (*all is becoming; nothing endures but change*) through his famous dictum, *δὲς ἕς τὸν αὐτὸν ποταμὸν οὐκ ἄν ἐμβαίης*, [you cannot [step] into the same [river] twice]” (Plato, “Cratylus”, para. 309)! Beautiful, is it not? I first mistook these words as Eastern.
- 71 As Guénon (1945/2004) noted, statistics has little significance in itself, for experts in the similar specialised fields can reach various conclusions, some diametrically opposed, based on their situated knowledge (Level II interpretation), often ignored (Level I), and less entertain deconstruction (Level III). “The fallacious character of the ‘statistics’ to which the moderns attach so much importance becomes most apparent; here as elsewhere, statistics really consist only in the counting up of a greater or lesser number of facts that are all supposed to be exactly alike, for if they were not so their addition would be meaningless; and it is evident that the picture thus obtained represents a deformation of the truth, and the less the facts taken into account are alike or really comparable, or the greater is the relative importance and complexity of the qualitative elements involved, the worse is the deformation” (pp.71-72).
- 72 However, the highest reaches of modern science which exemplify quality, particularly humanism and socio-cultural studies, are relatively low from an Eastern or metaphysical point of view on Quality.
- 73 In the mathematical order, this would be pure quantity symbolised as $\{\mathbb{N}\}$. Metaphysically we have primordial or undifferentiated nature.
- 74 Again, care must be given to those who assume a position of absolute skepticism. In a recent metaphysical lecture I attended in Toronto we were connecting a *vesica piscis* around our body connecting the non-human *čakras* together (above and below the body). I was able to connect immediately and effortlessly to my lower (Earth) *čakras* had quite the difficult time connecting to higher (Heavenly) *čakras*!
- 75 Clair-sentience is described as extra-sensory perception in the field of parapsychology which is either considered a *pseudo-science* or an emerging scientific domain in inquiry—depending on your belief system. Growing up I was intimately connected emotionally to my mother and also connected to other people, though not as strongly. It would be a common occurrence to simply cry for no reason in a room by myself on the other side of the house where (I figured out later) my mom was sad and crying too. I therefore developed a very high emotional intelligence. Sadly, through schooling, it was solely rational intelligence that was developed to replace emotions and only recently have I brought both brain hemispheres together in a much stronger union. Other interesting phenomenological accounts include prophetic dreams which I would see personal events that would occur years later, long after I had forgotten them: a very different case of *deja vu*! I still have them to this day, but few and far between. Dreaming is yet another faculty in our integral human constitution that is never developed in schooling; in particular, *lucid dreaming* is something I am capable of and never lost (but never developed further until recently). These occur at least once a week for me.
- 76 It was really *me* that left *her*. She never left. Although differentiation will naturally occur between self and environment, a desensitisation need not to.
- 77 The word *mysticism* is, in fact, a European word, and not an accurate Eastern translation.
- 78 From Capra (1997) I discovered complexity, systems science, and the evolution of scientific thinking and ideas; from Bill Mollison (1988) I was taught permaculture or a systems science for agriculture; Masanobu Fukuoka (1978) brought these two together despite predating either trend in *The One Straw Revolution*, advocating a return to natural farming based on his own Eastern (*Zen*) philosophy. These books all celebrated the interconnection and *interdependence* that exists being found in all branches of Westernised learning, thereby allowing me to refashion a Westernised dialogue with nature using complex and (eco)systemic epistemology’s. Ecosystemic is a permaculture terminology used by Geoff Lawton to mean systemic in definition.
- 79 I reserve wholism for whole beings (body, mind, soul, spirit) and holism as Capra would define ecological: interconnections between all whole things.
- 80 Mathematics of complexity—the tool for the *post*-cyberneticists—is “one of relationships and patterns. It is *qualitative* rather than *quantitative* and thus embodies the shift of emphasis that is characteristic of systems thinking—from objects to relationships, from quantity to quality, from substance to pattern” (Capra, 1997, p. 113). Otherwise called *non-linear dynamics* due to its fractal nature of feedback. From mountaintops to clouds to acorns growing into oak trees, it seems fractals are not only *ubiquitous* in nature, but near *universal*; it is the linear geometry of the Newtonian-Cartesian paradigm that is a rare “species” indeed ... yet our entire worldview—including our educational system—has been built along such lines!

- ⁸¹ Biology is a higher order of complexity than physics. f.f. section *Curriculum: A sophistication or the end result of the mechanisation process?*
- ⁸² Its official vision was *permanent (sustainable) agriculture* as described by “an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man [*sic*]” (Holmgren, 2009, p. xix). However, the very vision of permaculture has evolved to *permanent (sustainable) culture* as described by “consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fibre and energy for provision of local needs” (p. xix). Theoretically, David Holmgren stated that permaculture is “*the use of systems thinking and design principles that provide the organising framework for implementing the above vision*” (p. xix). Its development emerged from the first wave of environmentalism (which is now in its theoretically third wave) from the characteristics of uncertainty, looming environmental threats, and potential innovations based on renewable energy strategies. It’s philosophical framework is *deep ecology* which is further backed by the framework of *systems ecology* (a branch of systems science). Permaculture also aims to develop *bio-ethics*, *ecological awareness*, and strict limits to consumption and reproduction on energy and material systems (Holmgren, 2009).
- ⁸³ Clockwise from topright: en.wikipedia.org/wiki/File:Plato%27s_Academy_mosaic_from_Pompeii.jpg (original: <http://www.departments.bucknell.edu/History/Carnegie/plato/academy.html>); en.wikipedia.org/wiki/File:Andrew_Classroom_De_La_Salle_University.jpeg; en.wikipedia.org/wiki/File:Forestgarden2.jpg; en.wikipedia.org/wiki/File:Sour_cherry_3428.JPG; and www.clker.com/cliparts/0/a/a/c/11971018311018802045johnny_automatic_Medieval_Farming.svg.hi.png
- ⁸⁴ Lamentable as it was one can expect as much in the early stages of progressing from a cup → plate. f.f. *Cups and Plates: a post-Modern Platonic Cave*.
- ⁸⁵ Most days early on I would get hit by the same vibration around 3PM that would then vibrate my whole body. My eyes teared and I had pressure in both my head and my lungs—as if someone was perpetually pushing my chest toward my back for hours on end. I felt I could barely breathe (although I could easily breathe) and often the pain became quite unbearable. I suffered incredible headaches but I told everyone that it was not a normal headache, nor was it a migraine, it was literally a *pressure* headache. No doctor understood me. After a year—while doing a masters all this time, albeit poorly, no less—psychological solutions came to the forefront that it was *all in my head*; maddening! I knew it was neither a mental nor biological phenomenon. MRI scans provided no clues and every doctor I visited gave me a clean, above-average bill of health.
- ⁸⁶ While yoga can be seen Platonically as “the reversal of the manifestation of life, [where] one must start with the shadows [emphasis added]” (Remete, 2010, p. 16). It may also mean “*samādhi* ... the attainment of which is otherwise unobtainable ... that which is *beyond the senses and mind* [emphasis added]” (Saraswati, 1999, p. xvii). Etymologically it refers to *union*, supplanting a philosophical duality or polarity consciousness. The root of the word “is to be found, scarcely altered, in the Latin *jungere* and its derivatives: and the English word ‘yoke’ shows this root in a form almost identical with the Sanskrit” (Geunon, 1925/2004, p. 31). Dennis Waite (2007) would connect religion with yoga for me, stating “The literal meaning of the word “religion” is “to bind back” (from the Latin re-ligare); i.e. to return to the reality of our true nature. All religions have the same objective and, though most will deny this, the same truth” (p. xviii)! I love making connections like these! I try to avoid syncretism for the sake of syncretism too. Even Guénon was unsure if religion as *union* was equivalent to Yoga, seeing religion as strictly a union of humanity, not so much a union of the Absolute.
- ⁸⁷ They are actually psychic entities (spiritual entities are angels) but in colloquial terms they are called ‘spirit guides.’
- ⁸⁸ To speak about Eastern *wisdom* in disregard to the metaphysics that underlie it is a gross blunder whose very omission is a contradiction.
- ⁸⁹ Reflecting, without the suitable background in a reductive scientific culture I could have never experienced its relative nature as the subset of a systems science. Similarly, without a systems science that opened up so much creativity in my experiential world of ecology—specifically through my permaculture initiatives home and abroad—I would have never been able to see *its* relative place as regards consciousness and metaphysics!
- ⁹⁰ It would seem that my life has been a *repeat*—if I may use that word playfully—of Western culture from its mythic-spiritual roots to a descended, reductive science of Modernity and then back up to a mystical-spiritual worldview. I grew up on the Eastern philosophies of *Dragon Ball Z*, the mythic SNES gaming of Squaresoft and Square-Enix (*Final Fantasy* series), the Western literary genius of J.R.R. Tolkien and his world of ancient magic and elves in *The Lord of the Rings*, the humble Welsh parables of Lloyd Alexander and the *Prydain Chronicles*, and the usual Western *Classics* such as *Robinson Crusoe*. So if my undergraduate degree re-enforced my reductionism inherited from Modernity (Model I), systems, chaos, and complexity sciences of post-Modernity followed *thereafter* where I began my *permaculture* MRP (Model II). Finally, through the *process* of my MRP, metaphysics and my mystic-spirituality blossomed, transmuting my myth-loving,

- childlike inner-nature.
- 91 Wilber (2000b) continued: “it is only in the higher (fulcrum-5 and beyond) that global consciousness, global awareness, global conceptions, and global solutions can even be entertained in the first place.... Reintegrating the lower is mandatory, as I [Wilber] fully agreed; but reintegrating the lower is not finding the higher. Yet in our aggressively Descended world [of Platonic shadows], this is precisely the type of solution that is so attractive” (p. 715) to environmentalists and systems theorists. A consequence of dismissing transrationality at the integrated mind/body order; thereby any attempt to cure the mind/body split of rationalism must regress to the predifferentiated mind/body of *environmental instinct* and *sentiment*.
- 92 It was more of an anti-Christianity than a true atheism.
- 93 As I outline in my MRP, it is not *education* but *schooling*. Therein lies the problem.
- 94 The ‘web-of-life’ and ‘systems theories’ are actually a subtle form of reductionism based on the flatland ontology that Wilber (2000b) demonstrates and I discuss later. For these reasons the systems theorists of most complexivists and post-Modernists are insufficient and we must turn to metaphysics to realize global solutions ... lest we fall into contradictions such as ‘horizontal transcendence’ as extolled by Mark Johnson (2008)!
- 95 Unfortunately Dr. Neufeld will never get to see my completed masters. He was my first masters of education lecturer on the History of the Philosophy of Education where I received my highest mark. Him and I continued long after with intellectual discussions to overcome the insufficiencies of critical pedagogy whose chief interest to post-Modern theorists strangled and suffocated us. He wrote as a Heideggerian and I write today as a Platonist. Although he was not my second reader, he wrote to me, amidst his work crisis, “I can assist you, however, as I’ve composed a 15 page guide for the Graduate Student Handbook on how to write a “conceptual thesis.” It’s attached. It’s not yet in the Handbook so you’re the first student to receive it” The following day he wrote, “I’ve not received confirmation that the dept. will include that in the handbook. But I don’t care actually. I’m glad I had it for your use. Writing it for that purpose was enough of a payoff” (personal communication, November 9, 2011). Rest in peace.
- 96 Auguste Comte (1798 – 1857) was a philosopher of science and the father of sociology. f.f. subsection *Rationalism revisited*.
- 97 Should data prove prior hypotheses false, it becomes merely an on/off switch like a breaker system where each switch is independent of other ‘data.’
- 98 William Tiller, a material scientist and engineer with a keen interest in Rudolf Steiner’s occultism and spiritual science, has indeed provided the next Copernican Revolution with his concept of *subtle energies!!*
- 99 The full, non-paraphrased quote is, “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it” (as cited in Kuhn, 1970, p. 151).
- 100 f.f. section *An Overview of Complexity Theory in Educational Theory*.
- 101 From a strictly mathematical standpoint it is $\{A \cup B = A + B - A \cap B\}$ when dealing with overlapping sets where you have to remove the redundancy $\{A \cap B\}$. But what I have in mind is the simple idea of *interrelationships* and *emergence* since the whole is *more* (additive) than the sum of its parts.
- 102 I was pleased that such a description (preserve and *negate*) had already been established in scientific literature as a *holon*. But more on this much later.
- 103 Carl Sagan (1934 – 1996) advocated peace on scientific grounds against the Cold War in the *Cosmos* series, published James Lovelock’s and former wife Lynn Margulis’ *Gaia Theory* (then the *Gaia Hypothesis*) in his own journal *Icarus* when all other journals refused publication (a true plate which the world could not admit, I might add), among other impressive feats in his life. His death came too soon, and I wonder how he would embrace the upcoming spiritual sciences and metaphysics that now reverberate our generation today.
- 104 With *avidyā* (Chinese: 無明; ignorance, suffering) arises *samskāra* (Chinese: 行; impulses, actions, mental formations) which arises *viññāna* (Chinese: 識; consciousness) which arises *nāmarūpa* (Chinese: 名色; name-form) which arises *ṣaḍāyatana* (Chinese: 六入; 6 sense organs (includes mind) + object) which arises *sparsā* (Chinese: 觸; contact, sense impression) which arises *vedanā* (Chinese: 受; feeling, sensation) which arises *trṣṇā* (Chinese: 愛; craving, desire) which arises *upādāna* (Chinese: 取; grasping) which arises *bhava* (Chinese: 有; becoming [‘to be’, as opposed to ‘being’ as is often cited]) which arises *jāti* (Chinese: 生; birth) which arises *jarāmaraṇa* (Chinese: 老死; old age [*jarā*] & death [*marāṇa*]).
- 105 As I will see later on the section *Eastern Mindfulness versus Western mindfulness*, it is better to translate the word *dukkha* as unsatisfactoriness.
- 106 In other words, the plate can understand the cup but the cup cannot understand that plate, although it will think it can by way of expansion.
- 107 To Shiva (1989), for “more than three centuries, reductionism has ruled as the only valid scientific method and system, distorting the history of the west as well as the non-west. It has hidden its ideology behind

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- projected objectivism, neutrality and progress” (p. 22). The result, according to Shiva, is that “the ideology that hides ideology has transformed complex pluralistic traditions of knowledge into a monolith of gender-based, class-based thought” (p. 22).
- 108 This is an excellent attribution to *vision-logic*, itself a *plate over rationality*. f.f. subsection *The limitations of model II*.
- 109 A little research is all that is needed into the history of scientific ideas (Capra, 1997) that will sufficiently prove this hypothesis.
- 110 A *bootstrap process* is defined as “self-generating” or “self-sustaining,” so a *linear bootstrap process*, if I am even using the word properly, is a method of linearising non-linear manifestations; f.f. [Curriculum: A Sophistication or the End Result of the Mechanisation Process?](#)
- 111 f.f. subsection *Transcending rationality*. In relativism, all perspectives are equally valid.
- 112 As I will discuss later, the role of transmission is exactly the same: a vehicle, through symbols and rites, of a spiritual influence
- 113 Specifically, a “metaphor is the application of an alien name by transference either from genus to species, or from species to genus, or from species to species, or by analogy, that is, proportion” (Aristotle, “Poetics”, para. 4).
- 114 *Minding* is Western mindfulness or meta-awareness! It falls under ecological considerations in the classroom. As Davis stated, “Human consciousness operates more as a commentator than an orchestrator. However, consciousness does play an important role in orienting attentions—that is, through differential attention, in selecting among the options for action and interpretation that are available to the conscious agent. Succinctly, consciousness doesn’t direct, but it does orient. Such is the role of the teacher in the eco-minded classroom: attending to and selecting from among those possibilities that present themselves to her or his awareness. In this sense, teaching is about *minding*—being mindful in, being conscious of, being the consciousness of—the collective” (p. 178). The terms *minding* and *mindful participation* are rooted in interobjective qualities of education rooted in evolutionary dynamics.
- 115 Specifically, Davis depicts the divergences in a fractal manner with a *tree*. The roots represent the Western Worldview. The first bifurcation (Y-branch) branches into *Metaphysics* and *Physics*. These branch off again into “sources of knowledge;” so metaphysically we have *gnosis (inner-subject)* and *episteme (outer-object)* while physically we have *inter-subjectivity* and *inter-objectivity*. These four then bifurcate *again* into “the means by which we come to know,” specifically mysticism *or* religion, rationalism *or* empiricism, structuralism *or* post-structuralism, and complexity science *or* ecology science respectively. Ken Wilber’s *integral theory* is one of the first few attempts to bring all these four domains together. Of course, one would require cognisance of these four domains since we generally consider two: inner and outer, placing chief emphasis on the latter! f.f. Table II.
- 116 Although I think Brent Davis is an absolutely brilliant theoretician as regards complexity and ecological sensibilities for education, I do not agree entirely with his mapping (see Table A2) as it suffers from a metaphysics-in-nature error. However, I have Davis to thank for placing the theory of complexity and ecology at my fingertips in an educational context as these in-sights are incredibly new. I also have to thank Davis for allowing me to see my error. Without him I could have never developed my Model III!
- 117 This section is better suited to Model II in *Chapter Two. Deconstructing Education*. However, I felt it necessary for the flow of my ideas to place it here.
- 118 Clarifying: “The social disorganization that results from displacing local traditions with the *context-free* traditions of a *technologically ordered and consumer dependent* lifestyle [implies the] cultural complex centered around the notion that human life, if it is to be fully lived, cannot be constrained by limits of any kind. To produce such a result in traditional societies, for whom the supposedly primordial principle of boundless expansion in technological and economic domains is generally alien, presupposes overcoming symbolic and moral ‘obstacles,’ that is, ridding these societies of various inhibiting ideas and practices such as myths, ceremonies, rituals, mutual aid, networks of solidarity, and the like [emphases added]” (Bowers, 2010, pp. 5-6).
- 119 On *egoic-agency* versus *eco-communion* (Model II) and translation versus transcendence (Model III). f.f. subsection *The limitations of model II*.
- 120 Although I cannot do justice to Bowers theory in just a few pages, I will state that in no way does he imply romantic nostalgia of ‘close-to-nature’ cultures or “earlier lifestyles that were actually characterized by poverty, debilitatingly hard work and shortened lives. Rather, what is being proposed as a way of reaching a better balance between self-sufficiency and consumerism (perhaps even reversing the degree of consumerism)” (p. 11). A great example of eco-justice in the agriculture sector is permaculture, which is not human-intensive (pre-Modern) or oil-intensive (Modernity *that created a dependency*), but *design-intensive* that mimics natural processes that places the work on the (large) shoulders of Mother Nature. Nor does

- Bowers re-enforce “inequitable patterns that keep some cultural groups living below the poverty line and in degraded environments that create greater health risks. Rather, the educational challenge is to contribute to their having more equal access to educational opportunity, political empowerment, and an improved material standard of living. What needs to be avoided is exposure to a curriculum that denigrates their heritage of intergenerational knowledge—which may include elder knowledge, patterns of mutual aid and solidarity” (p. 11).
- ¹²¹ As Bowers stated, “The relentless drive to *commoditize* more aspects of daily life, and thus to create new markets *and thus new forms of dependencies*, is a key factor in the cycle of production, product obsolescence and misuse, and environmental contamination that is contributing to the rapid changes we are witnessing in natural systems [emphases added]” (p. 10).
- ¹²² I reference this point again in *Chapter Four: Reconstructing Education*. f.f. subsection *Constructing Model II*.
- ¹²³ As I detail later, we are entirely in the rational mode as regards Westernised education. Most primordial traditions would place equal emphasis on Mother Earth and Father Sky with human intellect (read: rationality) placed in the middle to form a ternary.
- ¹²⁴ For instance, Csikszentmihalyi’s *flow*, whose popularity is quote-unquote *flowing*, is an excellent example of such a non-mystical *attention*.
- ¹²⁵ The basic meaning of the Greek word *ψυχή* (*psūkhē*) was “life” in the sense of “breath,” formed from the verb *ψύχω* (*psukhō*, “to blow”). Derived meanings included spirit, soul, ghost, and ultimately “self” in the sense of “conscious personality” or “psyche” (retrieved from [https://en.wikipedia.org/wiki/Psyche_\(psychology\)](https://en.wikipedia.org/wiki/Psyche_(psychology)), April 3, 2013).
- ¹²⁶ His quotation spoke wonders to me: “For example, consider the role science now plays in education. *Scientific ‘facts’ are taught at a very early age* and in the very same manner in which religious ‘facts’ were taught only a century ago. There is no attempt to waken the critical abilities of the pupil so that he may be able to see things in perspective. At the universities the situation is even worse, for indoctrination is here carried out in a much more systematic manner. Criticism is not entirely absent. Society, for example, and its institutions, are criticised most severely and often most unfairly and this already at the elementary school level. *But science is excepted from the criticism. In society at large the judgement of the scientist is received with the same reverence as the judgement of bishops and cardinals was accepted not too long ago.* The move towards ‘demythologization,’ for example, is largely motivated by the wish to avoid any clash between Christianity and scientific ideas. If such a clash occurs, *then science is certainly right and Christianity wrong.* Pursue this investigation further and you will see that *science has now become as oppressive as the ideologies it had once to fight.* Do not be misled by the fact that today hardly anyone gets killed for joining a scientific heresy. This has nothing to do with science. It has something to do with the general quality of our civilization. Heretics in science are still made to suffer from the *most severe* sanctions this relatively tolerant civilization has to offer [emphases added].” (p. 182). Similarly, as Sandra Harding put it: “*Neither God nor tradition is privileged with the same credibility as scientific rationality in modern cultures. ... The project that science’s sacredness makes taboo is the examination of science in just the ways any other institution or set of social practises can be examined*” (as cited in Shiva, 1997, p. 12).
- ¹²⁷ Adopting new hypotheses or over-extending (usually under-extending) the context where limited truth was held are tossed out in a decontextualised mentality. Such a black and white picture ignores deliberate intentions of deception (fudging results) or something more severe. Many research agendas—as we explore later—are either compatible with mechanisation (needing uniformity to get statistical results) or re-enforce it, especially in education!!
- ¹²⁸ For a *metaphysician*, this would represent pseudo-principles.
- ¹²⁹ The concern parallels the end process of mechanisation (as I detail below) as well as stems from treating people (and all sentient life) as *resources* with an abuse of technology (Heidegger’s own context is important here).
- ¹³⁰ Their use of the word *powerful* is interesting as powerful generally denotes *predictive* and *controllable* (read: non-complex) phenomenon (Wilber, 2000b).
- ¹³¹ Post-Modernists, Brent Davis and Dennis Sumara included, view universals as universals *in* naturalism. An *error* based in a Model II perspective.
- ¹³² Syncretism is the combination of seemingly contradictory beliefs, merging several originally discrete traditions, especially theological, mythological, religious, and spiritual. The Traditionalist school would scold the various modern occultists for their analytic, systematic, and syncretic approach in combining the East with the West, especially in terms of exotericism. However, in esotericism a certain syncretism is possible, making room for an underlying unity in matters of spirituality (Schuon, 2005). It derives from modern Latin *syncretismus*, drawing on Greek *συγκρητισμός* (*synkretismos*), meaning “Cretan federation.” Cretans were

- those that compromised and reconciled their differences in order to face an external threat or enemy.
- 133 According to Davis and Sumara (2006), a common trend in science is “toward the status of a *metadiscourse*—that is, an explanatory system that somehow stands over or exceeds all others, a theory that claims to subsume prior or less perspectives, a discourse that somehow overcomes the blind spots of other discourses. *The most frequent target of this sort of criticism is analytic science* [emphasis added]” (p. 7) or any “other attitudes that have presented themselves as superior and totalizing” (p. 7). Here we see these theorists in a Model II perspective since *meta-* in its original usage means *beyond* not as *an extension to* (*discourse*, in this case) and metaphysics (for instance, in its correct, Model III interpretation) *does* stand above *physis* (the domain of Nature). I agree with them that *in physis*, the superiority of many attitudes—especially modern science, should be kept in check.
- 134 “From ἀναλύω (*analuō*, “I unravel, investigate”), from ἀνά (*ana*, “on, up”) + λύω (*luō*, “I loosen”)” (retrieved from https://en.wiktionary.org/wiki/ἀναλύω#Ancient_Greek, 2012).
- 135 As cited in Capra (1997), in a strictly horizontal cause-effect relationship, “An intellect which at a given instant knew all the forces acting in nature, and the position of all things of which the world consists supposing the said intellect were vast enough to subject these data to analysis—would embrace in the same formula the motions of the greatest bodies in the universe and those of the slightest atoms; nothing would be uncertain for it, and the future, like the past, would be present to its eyes” (p. 184). f.f. subsection *The mechanical, parts-based first model*.
- 136 This has led to numerous scientific mythologies, a murky territory that very few people wish to acknowledge (or can acknowledge [*cup*]). Most highly scientific individuals view religions as belief systems, and by contrast, science as a non-belief system. Yet, “the *belief* in a deterministic universe and *faith* in analytic methods persist within the scientific establishment—and rightly so [emphases added]” (Prigogine, 1997, p. 9). And in truth, dogma is dogma everywhere, whether in scientific and atheist circles (despite the etymology of the latter) or in religious circles. f.f. subsection *Scientific mythologies*.
- 137 Therefore, “the prevailing *belief* [emphasis added] that adaptations can be understood in terms of environmental causes, while appropriate for simple and complicated (i.e., mechanical) systems, is utterly unsuited to complex systems. Entirely new principles of adaptation—that is, *learning*—are needed” (p. 12). It is not a matter of *extending* (*cup*), but of *transcending* (*plate*).
- 138 This said, it is important to make distinctions too—mainly that humans have (rational) faculties that are nonexistent in plants or animals. Davis (2004) would call this mentality analytic and not deep ecological, but the rational faculty is an emergent feature: a premise deep ecologists embraces! The contradiction between emergent rationality in a subsumed, horizontal web-of-life, is a contradiction within conceptual difficulties in Model II.
- 139 The abuse of the term *transformation* is ubiquitous in post-Modern and critical thought and constitutes an *expanding cup*. See Table A4.
- 140 Learning, furthermore, co-evolves historically, socially, culturally, and physically in our *embodiment* where “the body is understood both as an outer (physical-biological) and inner (lived experiential-phenomenological) structure” (Davis, 1996, p. 9), circulating between the two.
- 141 I love and adore Brent Davis’ rhetorical genius.
- 142 f.f. subsection *Uniformity and diversity*.
- 143 Macroscopically, the Gaia Theory of James Lovelock and Lynn Margulis, establishes that “planet Earth as a whole is a living, [open,] self-organizing system” (Capra, 1997, p. 100) that maintains itself far from equilibrium “characterized by a constant flow of energy and matter” (p. 102).
- 144 Renewing timber *and* water, keeping streams flowing and nourished; the interconnection between these two is lost in our demarcating habits.
- 145 As Shiva (1997) noted, “‘Scientific forestry’ in its present form is a reductionist system of knowledge which ignores the complex relationships within the forest community and between plant life and other resources like soil and water. Its pattern of resource utilisation is based on increasing ‘productivity’ on these reductionist foundations. By ignoring the system’s linkages within the forest ecosystem, this pattern of resource use generates instability in the ecosystem and leads to counterproductive use of natural resources at the ecosystem level” (p. 21). In other words, a reductionist attitude (mechanical level) is doing harm to an order of complexity higher (ecosystem level).
- 146 In reductionism, only parts matter, and not all parts either; “for tribes and other forest communities a complex ecosystem is productive in terms of herbs, tubers, fibre and genepool, etc., for the forester, these components of the forests ecosystem are useless, unproductive, dispensable” (Shiva, 1997, p. 22). If we look at modern agriculture, there is literally nothing other than the crops farmers grow. No natural patches means no habitats for predators which means unbalanced and unchecked pest systems which enforce pesticide use which further causes malefic (albeit now necessary) effects in nature—of course we never know *what* those malefic effects

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- will be (complexity). These trends are getting *worse*, not better!
- 147 A connected issue is that in our technological alterations the very rhythms of our life have become maladjusted. We can now live in an environment where there is light all day long, which is warm all day long (even in Northern climates), we can eat bananas in cold winter climates, and so on. Everything has become uniformly managed. Some changes are great, some are detrimental.
- 148 I am neither Haudenosaunee, nor have I any experience with their communities. I am taking an outside perspective only. Rather than being “objective” the point is actual the reverse: I do not know!
- 149 When I use the term *our* it is not meant as restrictively human and anthropocentric.
- 150 Despite the increasing heat of the sun over the past four billion years, the Earth has maintained healthy surface temperatures suitable to life. In a linearised view, an increase in heat from the Sun would create an increase in surface temperature in the Earth. Furthermore, by way of *Daisyworld*, the complexity and *diversity* of various flora and fauna within self-organising ecosystems are “tightly coupled so as to form a self-regulating entity” (Capra, 1997, p. 103). The diversity loss around the planet are not extinctions of isolated species, they are interrelated and our interdependence maintains stability.
- 151 One example is nuclear physics. Our lives utilise so much energy that large energy plants are required. We have co-evolved with the existence of nuclear plants. Nuclear power is also on a lower order of complexity and thus implicates higher orders such as ecological and biological systems. Lost is the idea that we need to *lower our own energy habits* and not simply grow increasingly dangerous technology to offset the mutual codependency!
- 152 Most complexivists and post-Modernists continue: in the bio-region in the Earth in the galaxy and finally, in the cosmos. A Model II perspective.
- 153 “The communally centered practices that kept the individual from being dependent upon what could be produced through an industrial process, are also the practices that Freire and other critical pedagogy theorists view as the source of oppression and, thus, are to be overturned” (Bowers, 2010, p. 5). For a deeper analysis see *Chapter Two: Deconstructing Education* which describes Models II and III in detail.
- 154 Unfortunately, when many theorists say *self-environment* they undoubtedly mean *organism-environment*; an inconspicuous error—especially since many are attempting to speak on the (lack of) boundaries between self-organism or inner-outer!
- 155 The reason we are operationally closed and ambiguously open has to do with an emphasis with *form* (non-material) over *substance* (material).
- 156 Etymologically, “*structure* is subject to diverse, even flatly contradictory interpretations. In English, two of the most prominent uses of the word are manifest in discussion of architecture and biology... To elaborate, when used in reference to buildings, structure prompts senses of fixed organization, preplanning, and step-following—which are in turn caught up in a web of associations that includes such notions as foundations, platforms, scaffolds, basics, hierarchies, and so on. The biological meaning of structure is quite different. ... [T]he word is used to point to the complex histories of organic forms. Structure in this sense is both caused and accidental, both familiar and unique, but complete and in process. This usage is closer to the original meaning of the word, as suggested by its etymological links to *strew* and *construe*” (Davis & Sumara, 2006, p. 13).
- 157 Structural determinism “sheds new light on the age-old philosophical debate about freedom and determinism. According to Maturana, the behavior of a living organism is determined. However, rather than being determined by outside forces, it is determined by the organism’s own structure—a structure formed by a succession of autonomous structural changes. Thus the behavior of the living organism is both determined and free.” (Capra, 1997, p. 220).
- 158 The word *auto* (Greek: *αὐτο*) means “self” and the word *poiesis* (Greek: *ποίησις*) shares the root for “poetry” and means “making;” *autopoiesis* is “self-making” whereas *allopoiesis* means a process which produces something other than itself, like most industrial factories.
- 159 The Gaian system passes Gail Fleischaker’s three proposed criterion for autopoietic networks. Gaia is self-bounded [atmosphere] where “Earth’s atmosphere is created, transformed, and maintained by the biosphere’s metabolic processes. Bacteria play a crucial role in these processes. ... The atmosphere is semipermeable, like a cell membrane, and forms an integral part of the planetary network” (p. 214). Gaia is self-generating since “all components [organic and inorganic] of the Gaian network, including those of its atmosphere boundary, are produced by processes within the network” (p. 215). Lastly, the Earth is self-perpetuating since all “components of the oceans, soil, and air, as well as all the organisms of the biosphere, are continually replaced by the planetary processes of production and transformation” (p. 215)!!
- 160 Capra continued: “As Neil Postman put it succinctly, “When a computer is used for learning, the meaning of ‘learning’ is changed”” (p. 70).
- 161 For post-cybernetics like Maturana, Varela, and Prigogine, it is the source of creativity because early

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- cyberneticists studied closed systems whereas these scientists and scientific philosophers studied *open systems*.
- 162 f.f. section *Pierre Grimes, the Platonic Tradition, and the Pathologos* specifically subsection *Grimes and the analogical teaching ratios*.
- 163 f.f. subsection *Curriculum: A sophistication or the end result of the mechanisation process?*
- 164 It is interesting that the nervous system plays a large role in yoga practices, especially with mindfulness and breath to induce relaxation (Saraswati, 2009a).
- 165 See *multiple states of the being* in *The disqualified web-of-life and the anti-metaphysical tradition*; *self-transcendence* beyond learning systems in *Transcending rationality*; *reflected knowledge* in *The Limitations of the Mental*; *ens rationalis* versus *anteriority* in *The Limitations of the Mathematical or Quantitative Order*; and finally the Latin root of *cognoscere* and Greek *Γνώσις* in *Darwinian evolution*.
- 166 Moreover, *autopoiesis* “is not a set of relations among static *components*, but a set of relations among *processes of production* of components (emphases his)” (Capra, 1997, p. 168). this is a key difference between mechanical and biological systems. Capra’s own synthesis for a “coherent theory of living systems” (p. 99) was for *autopoiesis* to be the *pattern* of life, dissipative structures the *structure* of living systems, and cognition, as the *process* of life. He also distinguished between living and nonliving systems; although “autopoiesis and cognition are two different aspects of the same phenomenon of life [where] all living systems are cognitive systems, and cognition always implies the existence of an autopoietic network” (p. 161), dissipative structures do not have the mathematical criterion of “if-and-only-if” (*iff*) as not all dissipative structures are autopoietic networks; such dissipative structures would be categorised as nonliving (Model II). According to Guénon (1945/2004), however, even the lowest atom still retains an element of quality (read: life) as it appears before our senses (Model III).
- 167 It is of no sheer coincidence that Capra sees mind and matter where Descartes himself spoke of a soul and body split! Soul collapsed to mind, body collapsed to matter. As already detailed the truer set is {matter (physiosphere), body (biosphere), mind (noosphere), soul (theosphere), spirit (Spirit)}.
- 168 See *ens rationis* in section *The limitations of the mathematical or quantitative order*.
- 169 Maturana and Varela (1992) stated that “the perturbations of the environment do not determine what happens to the living being; rather it is the structure of the living being that determines what change occurs in it. This interaction is not instructive, for it does not determine what its effects are going to be. ... [T]he changes between the living being and its environment are brought about by the disturbing agent but *determined by the structure of the disturbed system*” (pp. 95-96).
- 170 If we simply change his (and most post-Modernists) understanding of metaphysics to *metaphysis-in-physis*, then (mostly) all issues are resolved.
- 171 As we will see in Model III, there are various hierarchical mysticisms which imply a cup {nature} to a plate {nature, subtle (deity), causal, nondual}.
- 172 Thus many eco-theorists would view the mind (*agency*) as a threat to body (*communion*). A communal, web-of-life world is networked, and chief emphasis is placed on communal wholes, not agentic parts. We see it in liberal feminism (*mind*) versus radical feminism (*body*) as well.
- 173 Davis (2004) laments, “It’s not clear to me whether conventional structures of formal education are flexible enough to accommodate ... intersubjectivist and interobjectivist sensibilities. ... [O]ne point of agreement across the diversity of opinions on the nature of teaching [was] that teaching has to do with one group’s desires, conscious and unconscious, to have another group see things that same way they do. I now find myself disagreeing with that assertion. Oriented by complexivist and ecological discourses, ... [t]eaching and learning are not about convergence onto a pre-existent truth, but about divergence—about broadening what is knowable, doable, and beable. The emphases is not on what is, but on what might be brought forth” (p. 184). I disagree with his notion of pre-existent truth as I find he mistakes interior Truth with scientific truth. I also would write 17th-century, not 16th.
- 174 I deter from saying *quantitative West* though the term itself arguably represents the material civilization the West is built upon (Guénon, 1924/2004). A further point to consider is how Westernised education acts as a significant factor in its development. Nonetheless, the subtlety I wish to emphasise is that complexity, primarily viewed as *qualitative* (Capra, 1997), is still more quantitative when we relate this point of view to a larger context. To give a similar example of what I mean, Capra emphasises that the Western worldview is too *yang* (masculine, patriarchy, and so on) and should be more *yin*, or, at the very least, a balance of both. However, from another point of view, that of metaphysics in particular, the manifest Earth itself is represented as *yin* whereas supra-formal manifestation is represented by yang. Also note complexity is quantitative (mathematical) and the overwhelming web-of-life theorists and critical pedagogies represent continuous quantity. More on that later though.
- 175 The reason why the plate is not {mechanical, ecological} is that there really is no mechanical systems as all

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- systems are in greater ecological contexts.
- ¹⁷⁶ Bullying is a typical emergence from these crises. Teaching anti-bullying strategies only hits the surface; we need solutions at the core. See Figure 6.
- ¹⁷⁷ Vandana Shiva (1952 – present) is a quantum physicist turned anti-globalisation activist with a niche in environmentalism pertaining to heirloom seed sustainability (anti-GMO), Vedic ecology, bioethics, biopiracy, and bio-diversity outreach.
- ¹⁷⁸ Orr stated that affection go hand-in-hand with the “best religious teachings” which places religion not at the study of Intellect, but of sentimentality which becomes often antagonistic with rationality. See *section Not two, but three*.
- ¹⁷⁹ f.f. Figure 23.
- ¹⁸⁰ Sagan (1980) stated “a new consciousness is developing which sees the earth as a *single* organism; and recognises, that an organism at war with itself, is doomed.” Recall he lived through the Cold War. But he also saw humans take the first photograph of the Earth: a truly consciousness transforming event!
- ¹⁸¹ Regarding the widespread fragmentation in all areas of social, cultural, scientific, and moral life, Bohm (2002) stated that “the notion that all these fragments are separately existent is evidently an illusion, and this illusion cannot do other than lead to endless conflict and confusion. Indeed, the attempt to live according to the notion that the fragments are really separate is, in essence, what has led to the growing series of extremely urgent crises that is confronting us today. Thus, as is now well known, this way of life has brought about pollution, destruction of the balance of nature, over-population, world-wide economic and political disorder, and the creation of an overall environment that is neither physically nor mentally healthy” (pp. 2-3). It should be noted that David Bohm (1917–1992) was in contact with Krishnamurti and this quote reflects their meeting together.
- ¹⁸² Grof stated that “modern science” has many solutions to these crises. Yet, many crises—due to the nature of chaos—derive from the very implementation of modern science. In many ways we are fixing yesterday’s problems. A reactionary tendency that begets a perpetual praise of scientific discoveries that fix previous celebrated implementations decades prior. The faster we act *systematically*, the faster *systemic* or unforeseen consequences emerge. The school—which provides the impetus for technological progress—conforms to the pattern as well. The reversed relationship between humans and technology is one consequence. Whereas technology *should* serve as a support for the vehicle we call human consciousness, today, our consciousness supports (or hinders) technological *progress* (assuming we admit human consciousness at all). From a metaphysical perspective, we are trying to offset the very materialisation (that we are unaware of) with technological materialism.
- ¹⁸³ The phrase *becoming* is quite important and should be kept in mind throughout my paper.
- ¹⁸⁴ Foreshadowing terminologies *civilise* and *civilisation*, Neufeld (2012) discussed Heidegger’s view: “Our contemporary English word for ‘person’ descends from the Latin *persona* that the Romans used to refer to what an actor wore on a dramatic stage (i.e., a ‘mask’). The word was directly related to the Latin word *personagium*, which is translated as ‘effigy’ or ‘model.’ Heidegger was searching for an alternative means of becoming an educated person, and to do that he was deliberately trying to incinerate our inherited and indoctrinated effigy of what that person is to be. *Such an alternative will never be acceptable to educators as long as the personage of what it means to be ‘educated’ remains a civilized denizen of a nation or organized political territory*. That is to say, so long as what it means to be ‘human’ carries social, economic, legal, or occupational connotations, the pedagogical product will have to be educated correctly according to those categories. *A different fundamental relation between action and thinking is required* to begin imagining any alternative to this pedagogical effigy. And for this imagination to begin, we require a new openness that comes from an entirely new vocation for what the person who is educated is to become” (p. 69).
- ¹⁸⁵ If the biological worldview is indeed correct, then it has never been otherwise despite the Cartesian claim. However, we still see the world “running down” so to speak. The question that arises, is if our mechanical implementation contributes toward the socio-ecological crises we see today?
- ¹⁸⁶ In the *plate* {Each, All, One} Wilber (2000b) noted, “For the Cambridge Platonists, who at the time were fighting a losing battle, the key to salvation was *theiosis*—one becomes the Divine, and thus participates in the depths of the All, embracing Each as a perfect manifestation of the One” (p. 436).
- ¹⁸⁷ Mechanically closed, not organisationally closed.
- ¹⁸⁸ Rather problematic as perpetuating linearity cannot admit two basis of modernity—and 16th century humanism, as the older of the two, has been left behind. Of course, there have always been two bases of Modernity, just like there have always been neutrinos prior to their discovery. But it was not in the rational mind to entertain such ideas in the socio-cultural context of the 20th century. It took the genius of a Stephen Toulmin to wrench up this lost basis from the depths of written history ... thereby discrediting *sub specie aeternitatis* in rationality as inherently flawed.

- ¹⁸⁹ Yet, it was only recently that specialisation was a philosophical impetus to strengthen community through interaction! See also *redundancy* above.
- ¹⁹⁰ Mistaken absolutism is seeing absolutism-in-naturalism *as* absolutism since naturalism is all that exists. Descartes is mistaken for Plato!
- ¹⁹¹ As Varela, Thompson and Rosch (1993) stated, “The brain [as] an information-processing device that responds selectively to features of the environment remains as the dominant core of modern neuroscience and in the public’s understanding” (p. 44).
- ¹⁹² Early cognitive scientists were cyberneticists. It should be noted that these researchers were more interested in *form* than substance (materialism). Underlying mental phenomenon was mathematical logic, they argued, and proceeded to develop a sophisticated system based on explicit mechanisms (as opposed to implicit). Such intelligent systems led to the formation of the computer which we generally take for granted today!
- ¹⁹³ Similarly, the corporeal order, if taken by itself, is a *phantasmagoria*. f.f. subsection *Spiritual degeneration and solidification*.
- ¹⁹⁴ In short, cognitivism first “postulates mental or cognitive processes of which are not only unaware but of which we cannot be aware and [second,] cognitivism is thereby led to embrace the idea that the self or cognizing subject is fundamentally fragmented or *nonunified* [emphasis added]” (p. 49). The consequence is that cognitivism creates a chasm between cognition and consciousness and emphasises instead the correlation between cognition and intentionality rather than all three. Thus, representation is *weakly coupled* to human experience as “it need not carry any strong epistemological or ontological commitments” (Varela et al., 1993, p. 135). Instead, it attempts to connect our *projection* (subjectivism) with *recovery* (objectivism) of a pre-given world. Therefore, “the deficiencies of cognitivism ... is that *symbolic information processing* is based on *sequential* rules, applied one at a time. This ‘von Neumann bottleneck’ is a dramatic limitation.... A second important limitation is that symbolic processing is *localized*: the loss or malfunction of any part of the symbols or rules of the system results in a serious *malfunction*. In contrast, a distributed operation is highly desirable, so that there is at least a relative equipotentiality and immunity to mutilations [emphases added]” (p. 86). So while cognitivism brought forth many common-sensible understandings and approaches toward studying human systems it became antagonistic to everyday human experience itself: “If cognition can proceed without the self, then why do we nonetheless have the experience of self?” (p. 51).
- ¹⁹⁵ Mindless minds are attributed to societies but societies do not think; it is an error to think that they do, despite emergent trends of coherence among many individuals that comprise a certain society. The error comes from a {span} orientation in Model II as opposed to a {span,depth} plate in Model III. In other words, in a span-oriented set, since a society is bigger, it must necessarily have a mind too (Model II). Worse, mindless minds is seen as selfless minds.
- ¹⁹⁶ Here mindfulness is conceptualised in its lowest possible interpretation: a tool to fill in missing gaps of a *fixed* computational model of mind! In such a context “*representation* is understood in its strong sense as the re-presentation of a pre-given world. Indeed, if we wish to recover common sense, then we must invert the representationist attitude by treating context-dependent know-how not as a residual artifact that can be progressively eliminated by the discovery of more sophisticated rules but as ... the very essence of *creative cognition*” (Varela et al., 1993, p. 148). On common sense: “if we are forced to admit that cognition cannot be properly understood without common sense, and that common sense is none other than our bodily and social history, then the inevitable conclusion is that knower and known, mind and world, stand in relation to each other through *mutual specification* or *dependent coorigination* [emphasis added]” (p. 151) as opposed to a mirror. In truth, commonsense requires “ever-receding levels of detail that blend into a nonspecific background. ... Such commonsense knowledge is difficult, perhaps impossible, to package into explicitly propositional knowledge” (pp. 148-149). While nonobjectivist orientation has historically been valued as unscientific (a nonobjectivist stance, no less!), it is recognising that knowledge is inherently *embodied*, not disembodied. Cognition is thus *living embodied action* where embodiment implies that “cognition depends upon the kinds of experience that come from having a body with various sensorimotor capacities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological, and cultural context. Action implies that sensory and motor processes, perception and action, are fundamentally inseparable in lived cognition. Indeed ... they have evolved together.
- ¹⁹⁷ Connectionism provided a model capable of rapid recognition, associative memory, and categorical generalization (Varela et al., 1993).
- ¹⁹⁸ See my exploration on Model II and Model III below. I remind the reader between the parallel of a scientific theory and the worldview supporting it!
- ¹⁹⁹ f.f. Figure 20.
- ²⁰⁰ The enactive paradigm aimed to bridge cognition with human *experiences* that were *structurally coupled* to the environment. Rather than recover a pre-given world, “the perceiver can guide his [*sic*] actions in his [*sic*]

- local situation [which] constantly change as a result of the perceiver's activity" (Varela et al., 1993, p. 173). Therefore, enactivism, as a cognitive system (model), "has operational closure ... one in which the results of its processes are those processes themselves" (p. 139). In other terms, cognition is *autopoietic* in that it self-replicates as opposed to simply creates another product (*allopoietic*) such as the industrial paradigm of factories where the machine makes cars, for instance. Perception is not longer about vision, but vision-in-action; objects "are not seen by the visual extraction of features but rather by the visual guidance of action" (p. 175).
- 201 In detail, enactivism "aimed to unify under one heading several related ideas. The first idea is that living beings are autonomous agents that actively generate and maintain themselves, and thereby also enact or bring forth their own cognitive domains. The second idea is that the nervous system is an autonomous dynamic system: It actively generates and maintains its own coherent and meaningful patterns of activity, according to its operation as a circular and reentrant network of interacting neurons. The nervous system does not process information in the computationalist sense, but creates meaning. The third idea is that cognition is the exercise of skillful know-hows in situated and embodied action. Cognitive structures and processes emerge from recurrent sensorimotor patterns of perception and action. Sensorimotor coupling between organism and environment modulates, but does not determine, the formation of endogenous, dynamic patterns of neural activity, which in turn inform sensorimotor coupling. The fourth idea is that a cognitive being's world is not a prespecified, external realm, represented internally by its brain, but a relational domain enacted or brought forth by that being's autonomous agency and mode of coupling with the environment. The fifth idea is that experience is not an epiphenomenal side issue, but central to any understanding of the mind, and needs to be investigated in a careful phenomenological manner" (Thompson, 2007, p. 13).
- 202 f.f. *Cups and Plates*. The idea (*paradox*) of selfless minds is inherent in the reductionist approach to contemporary cognitivist theory. Moreover, they did not "discover" selfless minds, but *mindless minds*. Worse, as Wilber stated: "far from being a major discovery, the 'mindless minds' notion is a *fait accompli* of the objectivistic, representational paradigm that guides the theoretical, objectivist notion in the first place. Varela et al. are building a bridge between an inadequate (if not downright wrong) skandhas theory and the reductionistic portion of cognitive science" (p. 736).
- 203 Yet *Guénon and Wilber transcend even these enactivist notions!!*
- 204 As demonstrated in the section *Cups and Plates*. See also sections *Rationalism revisited* and *Limitations of the mental*.
- 205 This is a very limited view: admitting only multiplicity and no Unity in principal. Post-Modern theorists (even the advanced theorist Brent Davis) should critique *uniformity*, not *Unity*. From a metaphysical perspective multiplicity without Unity is severely (but not entirely) *quantitative*. Or seen in another way, entirely *outward* as opposed to *inward* which concerns contemplation and (Eastern) Mindfulness.
- 206 If we postulate that our thinking has evolved ... then how can we maintain that *what* and *how* we think today reflects earlier times?? It cannot!
- 207 f.f. *The limitations of the mathematical or quantitative order* as regards equilibrium.
- 208 Here certainty is *gnosis* in the domain of immutable metaphysics versus the domain of *agnosis* or *physis* which is transitory, therefore mutable and uncertain (like the gross mind). He adds "Being and Consciousness: these are the two roots of our reality. *Vedānta* adds Beatitude [*Ānanda*], which is the ultimate content of both Consciousness [*Chit*] and Being [*Sat*]" (p. vii). Hence the divine phrase *Sachchidānanda*.
- 209 Standardised testing is one prime example alongside the entire curricula. Their interconnection is of particular interest as I model later on.
- 210 We still, to this day, direct our attention toward quantum-relativistic science for the possibilities and expressions of nature. Since physics offers the greatest *fundamental* domain to learn from (Capra would hesitate to use *foundation* given its outdated, architectural analogy), it is thereby perceived to hold the greatest (read: most objective) *truth* when raised on Westernised education.
- 211 Education, however, is generally the last to introduce these findings. In teaching certification, enactivism is missing and only constructivism is taught as a successor to positivism. Therefore, the general population is brought up upon scientific mythologies. See section *Scientific mythologies*.
- 212 According to Capra (1997), "The paradigm shift of science, at its deepest level, implies a shift from physics to the life sciences" (p. 13). Although he stated the reason is because physics has lost its role in providing the most fundamental description of reality, I would say the reverse, that physics *only* provides the most fundamental description of reality and in-and-of-itself provides nothing significant. Even engineering (*physics*) is slowly moving toward bio-mimicry (*biology*). Permaculture, too, is situated in the domain of ecology as opposed to chemical horticulture.
- 213 Any traveler will witness the powerful effect of human control on natural systems, unless they go into pristine woodlands, prairies, or other untouched ecosystems. One can easily spot a non-GMO cornfield by the lack of

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- uniform height spanning agricultural land, a permaculture vegetable patch in absence of rows, and woodlands comprising a diversity of seemingly chaotically placed trees that lack orchard-regulated linearity. The natural apples and pears that were once available at farms are now unmarred, chemically treated, and waxed: creating that uniform, colourful *glow*. *Think: Why do we cater to shiny apples as opposed to the healthier, nutritionally-dense natural ones?* Uniform grass, too is created by weeding or manufactured as sod, which, moreover, is the greatest water required crop that we manufacture! Grape seeds are removed only to be offered in health supplements as extracts, when eating them together is far more *wholesome* and *sustainable*. Do these trends not presuppose the very aesthetic of such uniformity? These systems, moreover, are all governed by an educated mentality seeking control parameters on the one hand, and a community that finds an aesthetic beauty in the uniform apple and lawn on the other hand. Rather than natural selection, we find *human* selection everywhere which, furthermore, diminishes the diversity of living systems into isolated and conceptually closed systems of mono-cultures (Shiva, 1989). We are even encountering mono-cultures of the mind (Shiva, 1997)!!
- 214 Often when we *design* garden or farm we *partition* the different crops, chicken coops, ponds, orchards, and so on!! Very typical in Dutch gardening. :)
- 215 In permaculture design, the *open* system takes into account these factors as a *regular* strand of the ecological web (niche) that strengthens the ecosystem (if balanced). Thus, the paradigm of optimisation over maximisation allows intentional ecological design be low in energy. See Model II.
- 216 Rather than use poison against snails, Mollison (1988) was fond of saying: *You do not have an excess of snails, you have a deficiency in ducks!*
- 217 f.f. *Cups and Plates*. One permaculture principle is that every organism serves multiple functions and each function is redundantly covered by multiple organisms. Pests are in balance with predators, and the elk and deer can eat the fruit leaving the higher portions for the human inhabitants.
- 218 In his introduction to *One Straw Revolution*, Masanobu Fukuoka (1978), Zen practitioner and father of natural farming, stated: “I believe that a revolution can begin from this one strand of straw. Seen at a glance, this rice straw may appear light and insignificant. Hardly anyone would believe that it could start a revolution. Nevertheless, I have come to realize the weight and power of this straw. For me, this revolution is very real. Look at these fields of rye and barley. This ripening grain will yield about 22 bushels (1,300 pounds) per quarter acre. I believe this matches the top yields in Ehime Prefecture. If this equals the best yield in Ehime Prefecture, it could easily equal the top harvest in the whole country since this is one of the prime agricultural areas in Japan...and yet these fields have not been ploughed for twenty-five years” (p. 1).
- 219 Fukuoka demonstrated the ability to grow bountiful crops of organic grains, vegetables, and fruit annually with no chemical fertiliser, no tillage, and little to no intervention whatsoever. The wild grains grew in contrast to the neighbouring farms with their *high energy demands* of tractors, fertilisers and tillage.
- 220 A spark of intuition entered Fukuoka (1978) that “humanity knows nothing at all. There is no intrinsic value in anything, and every action is a futile, meaningless effort” (p. 5). Manifesting and *cultivating* these words for forty years, Fukuoka concluded that “the ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings” (pp. 65-66). You will not see mechanical agriculture—or even organic agriculture—meet these insights! More significant is the fact that since Fukuoka’s time agriculture has only become *more* mechanized; Fukuoka reflects: “to the extent that people separate themselves from nature, they spin out further and further from the centre. At the same time, a centripetal effect asserts itself and the desire to return to nature arises. But if people merely become caught up in reacting, moving to the left or to the right, depending on conditions, *the result is only more activity*. The non-moving point of origin, which lies outside the realm of relativity, is passed over, unnoticed. I believe that even ‘returning-to-nature’ and antipollution activities, no matter how commendable, *are not moving toward a genuine solution if they are carried out solely in reaction to the over development of the present age* [emphases added]” (p. 13). It boils down to systematic versus systemic but with a mystical twist.
- 221 An assumption that mechanical (*false universal*) knowledge can be applied to any bio-regional (*local*) site. Shiva (1997) added poetically, “The [*true*] universal would spread in openness. The globalising local spreads by violence and misrepresentation” (p. 10).
- 222 “Redundancy among agents is one of the key qualities that distinguishes complex systems from complicated systems. The important difference is that, ... mechanical operations [think] in terms of *optimum* efficiency, complex systems obey a logic of *adequacy*. Indeed, it makes little sense to think in terms of ‘best’ for systems that are constantly changing (and for systems whose contexts are constantly changing)” (Davis & Sumara, 2006, p. 138)!
- 223 Again, despite learning *about* fractals in secondary education, linearity and everything it gives rise to: predictability, mechanism, determinism, and so on, were never truly understood until after my undergraduate work in permaculture which focuses primarily on nonlinearity for its framework. I believe fractals are still

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- taught without any context, a separate topic in a separate classroom that represents mere mathematical art. For instance, many people know about fractals, few know about its historical significance.
- 224 The formalism behind such philosophy—such as extending (rigging) the Hilbert space for singular functions and the use statistical ensembles over trajectories in both quantum and classical mechanics—are beyond the scope of this paper.
- 225 The simple dandelion immediately synthesized the interrelated topics of chaos and order, organicism (healing) and mechanization, uniformity and diversity, and the crisis in perception. I thought, if education would be allowed to thrive as a dandelion thrives in a natural lawn, education would begin to heal the multi-faceted crises.
- 226 Unfortunately, as grains rot away unpurchased, the problem resides in our socio-economic sphere, not in our capability of growing enough food.
- 227 The contradiction in our perception is that the horticulture is effectively closed yet still stands within an open system. I am also not advocating a romantic ideal for an agrarian lifestyle (although I see myself as a farmer in the near future) as there is a subtle difference between a permaculture system and a pre-Modern agricultural system. The latter is mainly *work* intensive while the former is *design* intensive. Modern agriculture and horticulture, in contrast, are *oil* intensive since in order for the system to maintain its internal integrity it must be continually pumped with *high amounts of energy* in various forms, whether they are electrical, petrol, mechanical, or so on. Thus, a *tunnel vision* occurs when we simply view what makes up the greenhouse and not its connections with the area beyond it. Permaculture is a truly sustainable—albeit complex—system. Modern agriculture and horticulture systems are multi-linear and complicated, not complex.
- 228 Every year is accounted for with ‘grading.’ Each grade consists in numerous independent curriculum subjects. These subjects then have monthly/weekly goals which further necessitates daily lessons, and so on. Curricula theorists are now aware of such rigidity and excessive curriculum requirements and have slackened the requirements considerably. *But reversing a mechanical curriculum in no way implies transposing into a higher domain of complexity.*
- 229 A permaculturist cannot add chemical fertiliser to the ground without detrimentally affecting the soil and its organisms. Rather, they analyse relationships between forage, (silvo)pasture, trees, and animals above and how they maintain soil integrity with mycorrhizae, hummus, and micro-organisms below.
- 230 There *is* an equivalence in creating specific micro-climates by creative use of ponds, hills, and other arrangements in accordance with the sun position, but this leads us too far into permaculture and away from the topic at hand. I am also not saying permaculturists do not use greenhouses; they do, but often in areas of creativity to micro-manage micro-climates which does not implicate ecological imbalances toward mechanisation.
- 231 *That we have mechanised ourselves into certainty in no way means we have arrived at certainty.* The discovery of nature’s deterministic laws, according to Prigogine, was an attempt to bring human knowledge closer to the divine. When we place indeterminism and probabilities into the very laws of nature, we obtain novelty, creativity, and possibilities as opposed to idealised certitudes through simplification. The Laplacian demon which stated that if all is known, the entire future and past are predictable, is *powerless* against time-symmetry breaking even if one’s “knowledge of the present is finite or infinite. The future is no more a given; it becomes a ‘construction’” (p. 106).
- 232 Positive psychology is differentiated from psychology which has historically studied mental illness,
- 233 However, to develop an education based on psychological and psycho-somatic concerns would require a negation of the mechanical mentality of gears and parts and transcend (while preserving) these assumptions in a higher order of complexity of phenomenology. Although these patterns fall within scientific proper, they are not seen as sufficient reason in abandoning (read: reforming or revolutionising) our current linear format of schooling.
- 234 For an application of such thinking, see subsection *What is considered good in model I is considered bad in model II.*
- 235 Similarly, Maturana and Varela (1992) stated that “knowing is the action of the knower; ... the *biological roots* of knowing cannot be understood only through examining the nervous system; we believe it is necessary to understand how these processes are rooted in the living being *as a whole* [emphases added]” (p. 34). They “admit knowledge whenever we observe an effective (or adequate) behavior in a given context, i.e., in a realm of domain which we define by a question (explicit or implicit)” (p. 174). In other words, the known is intricately tied to the knowing of the knower. These are not separate domains as in Model I, rather, they are *embedded* (Davis & Sumara, 2006) and *recursive*. However, it is not clear whether Platonic Knowledge, linking knower (subject) to known (object) through *identification*, is satisfied.
- 236 If we are to remain strictly with Daoist or Hindu teachings (read: primordial) I note that the masculine

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- principle is *active* and the feminine principle *passive*. Here *activity* as a noun should be replaced with *action* which has its proper correlation with *contemplation* which is truly *active*. A better descriptor would be *movement*. I also note in passing the close association that *action* and Western *pragmatism* share as opposed to the superiority of contemplation as regards Eastern doctrine.
- 237 The contradiction that aims to regain a(n anthropocentric,) humanistic world while at the same time placing humans within a horizontal, biocentric web-of-life is the topic of Model III. Eco-Romantically our Earth is *more-than-human* (Davis, 2004) but Eco-Noetically the Earth is *less-than-human*.
- 238 However, bridging true dualisms require that ‘upward reaching’ (Model III): a point lost on Model II as all dualities are placed in naturalism.
- 239 In recent organic versus non-organic debate as regards nutrition, the topic of interrelationships is completely missing. For instance, even if researchers find no significance in nutritional quality between the two, which begs the question of *when* they take samples, the interrelationships of pesticides in a greater ecological context remains “beyond the scope of any paper.” These abstracted analysis are not systemic, merely systematic. How pesticide use affects bees, future malefic complexities, synthetic dependencies that develop, and the energy content of the food are not taken into consideration.
- 240 Rather than see the tree as simply an isolated entity to be *harvested*, we must account for (and should teach the principles behind) the ecological, non-linear phenomenon that when trees are cut in large strips, creek systems fifty kilometres away may dry up. And usually these strips are then rebuilt in a wholly linear and uniform manner as opposed to re-creating an ecosystem that depends upon the diversity of living flora and fauna in order to maintain an internal integrity within the greater ecological niche it resides! Permaculturally, the *existence* of the tree contains not only a myriad of ecological functions for each niche, but these same functions of interdependencies are also found in redundant forms throughout other plants (albeit with their own set of unique functions privy to their species/genus) within the same niche. Therefore, the greater the *diversity*, the greater the potential interrelationships. However, one must not simply aim to diversify for the sake of diversification; complexity offers evidence of malefic presences where the addition of a single organism can detrimentally affect all other parts in the ecosystem.
- 241 These efforts lead to mechanical and energetic dependencies. For instance, factory farming is dependent on large acreages of sustenance as one kilogram of meat comes from 14+ kilograms of sustenance (Robbins, 1998). Hormonal injections offset malefic effects from cages (linearising emergences). The school is becoming more *resource* intensive (in curricula, teaching, technology) *as it co-evolves with curriculum demand, which it itself produces*.
- 242 Ecological literacy, or ecoliteracy aims toward “understanding the principles of organisation of ecological communities (ecosystems) and using those principles for creating sustainable human communities” (Capra, 1997, p. 297).
- 243 A critique from the communion camps that argue agency-oriented metaphors are anti-environmental and contribute to its decline (Bowers, 2010).
- 244 Recall the cup → plate: {rational acquisition of learning} → {ecological decay, stress, mindlessness, addiction, scientific belief patterns, consciousness, spirituality, diseases, processes, knowledge, diet, contemplation, morality, ecology, virtue, forests, water, religion, yoga, perception, creativity, and so on}.
- 245 As I detail later, emphasising the former entails following the Ego-Enlightened path whereas the latter entails the Eco-Romantic path. Both are needed.
- 246 For instance, a small tree may have numerous vegetables, plants, and nursery (read: supporter) plants accompanying it, but like all trees, it will grow bigger and bigger and thus the permaculture plot turns into a forest over the seasons. Thus, time plays a qualitative factor rather than little to no factor at all, such as mono-cultures and simple vegetable beds that remain largely the same, although in the case of the latter, permaculture principles have their role to play too such as lasagna mulching.
- 247 An important point is that the mechanisation process not only saw the fruition of the ‘finely-tuned’ curriculum ... but its *existence* sustains the curriculum. The curriculum was built, moreover, by the reductionists it created! And to regain contextualisation with a de-contextualised Westernised upbringing is no easy task; it requires a certain sacrifice of the mental (rational) ego to which we indoctrinate students to cherish and associate their selfhood with.
- 248 Here Davis, like most post-Modernists, likely make the error of mistaking *transformation* with *translation*. f.f. subsection *Not one, but two*.
- 249 These trends are not happening overnight, but take centuries to occur—whether in natural systems such as pollinator scarcity (county-scale bee deaths), ocean acidification, nuclear contamination, and so on, or in education amidst various social crises; the same trends of systematic versus systemic are clear.
- 250 Suicide, self-esteem, bullying, pathologies, stress, and so on are a few that come to mind at the humanistic level. All sorts of parallels exist in agriculture.

- 251 f.f. subsection *Rationalism revisited*.
- 252 Guénon (1932/2004) noted, “Psychology ... need only concern itself with what we [real metaphysicians] call the ‘phenomenal consciousness’, that is, consciousness considered exclusively in its relations with phenomena, and without asking whether or not this is the expression of [a higher] order” (p. 41).
- 253 In a Model I, these ideas are compartmentalised (gym time, recess time, and so on) and are thus mechanically (and physically) factored in. Recall that existence matters, and the uniform curriculum necessitates mechanical formulation.
- 254 For *spiritual pedagogy* death is a topic of extreme importance, often the goal of the individual to understand fully. We exist in a time period today where we cannot have gone further from these original intentions and goals in education! This reminds me of a quote by His Holiness the Dalai Lama; when asked what surprised him most about humanity, he replied, “Man. Because he sacrifices his health in order to make money. Then he sacrifices money to recuperate his health. And then he is so anxious about the future that he does not enjoy the present; the result being that he does not live in the present of the future; he lives as if he is never going to die, and then he dies having never really lived” (n. d.).
- 255 Krishnamurti (1963/2005) later stated the mind in this state *is* meditation: the strong connection to mindfulness meditation is apparent.
- 256 I do not think that such a curricula entails *anything goes*. If we consider permaculture, permaculturists *maintain* chemical truths within ecological considerations despite *negating* these truths as they largely pertain to (closed) laboratory conditions meant for greenhouses.
- 257 Connecting to this section, I always found it interesting that the scientific mentality, who “really knows” something, then leaves their “truly true” position on account for greater evidence. But then there is a tricky situation where the truly true was actually never true to begin with, yet defended as dogmatically as the dogmas (usually religious) they were attacking! Science may utilise truth, but truth alone does not reside in science.
- 258 I grew up in a dutch community where many Christian Reform were either not Christian in the moral sense and usually also “Sunday Christians.”
- 259 While education is seen as secular or religious-neutral, the hidden agenda is pro-atheism or what I call religious materialism. See introductory quotation.
- 260 Guénon (1945/2004) continued: “The being that has attained a supra-individual state is, by that fact alone, released from all the limiting conditions of individuality, that is to say it is beyond the determinations of ‘name and form’ (nāma-rūpa) that constitute the essence and the substance of its individuality as such; thus it is truly ‘anonymous’, because in it the ‘ego’ has effaced itself and disappeared [through sublimation] completely before the ‘Self’” (p. 63).
- 261 f.f. *Being and becoming*. In particular Coomaraswamy’s quote on technologists and engineers not representing true students of Nature.
- 262 If “the orthodox doctrines reported by Plato and the East are not convincing, this is because our sentimental generation, in which the power of the intellect has been so perverted by the power of observation that we can no longer distinguish the reality from the phenomenon” (Coomaraswamy, 2007, pp. 28-29).
- 263 It is important to know that karma, here, means action, whose principle is in contemplation. Karma, has its analogical transposition to, into *ritual* action which connects to the difference between exoteric (outer) religion and esoteric (inner religion) teachings.
- 264 “In separating rationality and logic from rhetoric and the emotions, we are unwittingly committed to the basic agenda of modern philosophy. Epistemology involves not just intellectual, but also moral issues. Abstract concepts and formal arguments, intuitive ideas and propositions are not the only grist for a philosopher’s mill: rather, he [*sic*] can attend to the whole of human experience” (Toulmin, 1990, p. 40).
- 265 f.f. Figure 22.
- 266 This section technically belongs in *Chapter Three: Further Metaphysical Ideas Pertaining to Model III Education*, however, I found it opportune to present it here for the flow of ideas.
- 267 Perhaps that Heaven and Earth are in Daoism, or any primordial tradition, gives the Christian conception of Heaven more legitimacy. At least it did for me.
- 268 f.f. Introductory comments on the *Avatāra* which means “descent” from a Heavenly (spiritual) influence to a Earthly manifestation or appearance.
- 269 It is interesting to see how close the symbols are for Man or Humanity (人) and Heaven (天) are!
- 270 One reads, especially in Davis (2004), on bridging dualisms in naturalism. For instance, “The Hebrew God, who transcends this fleshly realm and who ordered man to set out to ‘fill the Earth and master it’, would seem to be implicated in the deeply engrained conceptual separation of the human from the natural. Similarly, Plato’s assertion that this world is an imperfect shadow of a nonsensorial ideal realm would seem to be implicated in the conceptual separation of mind and body [emphases added]” (p. 149). The

- interpretation collapses hierarchy to simple negation; for instance, from supra-sensory to non-sensorial—and the word *nonsense* is quite apt here in the *good sense* to abandon metaphysics! Rather than this seemingly Platonic separation between mind and body—which is false anyway—I say that the modern conception *would seem to be implicated in the conceptual separation of formless (religion) and form (naturalism)*; to which there is only distinction: *abhedābheda*. See also endnote 18.
- 271 Guénon (1945/2004) stated, “It can be said with truth that certain aspects of reality conceal themselves from anyone who looks upon reality from a profane and materialistic point of view, and they become inaccessible to his observation: this is not a more or less ‘picturesque’ manner of speaking, as some people might be tempted to think, but is the simple and direct statement of a fact” (p. 117).
- 272 A parallel to living systems being stable far-from-equilibrium in the corporeal order of existence. Equilibrium is truly Being {spirit} but with spiritual degeneration, such a concept has found its way into the corporeal order which is perpetually becoming and changing. And then authors like Davis criticise metaphysics for seeing equilibrium in naturalism!!
- 273 “The negation of the animic world, in which we are immersed like crystals floating in a liquid—though appearances lead us to believe that this world is found within our bodies or behind the material husk of things—carries in its wake a reduction of psychic realities to material causes, and consequently leads to a false evaluation of all that pertains to the mental order; it is the death of all spirituality. Not only is nothing known of the vast domain that is the purview of magic, but the higher is explained by means of the lower, ... a complete dehumanization of the human” (Schuon, 1975/2002, p. 63).
- 274 Consequently, this is an argument against the Ego-Enlightenment camp from the Eco-Romantic camp. f.f. subsection *The limitations of model II*.
- 275 In the words of West (1991), when the subject of astrology comes up, an instantaneous philosophical myopia settles upon all and quite suddenly they seem unable to see past the end of Newton’s nose. While the Copernican revolution affected the consciousness of humanity, and rightly so, Copernicus, *a practicing astrologer*, was merely demonstrating “the heliocentric system by his study of Pythagorean ideas” (West, 1991, p. 100)!! Therefore, the heliocentric nature of astronomy does not refute the geocentric nature of astrology. Johannes Kepler, initial skeptic and whose work is seen as disproving astrology, was a *convinced astrologer* through his own scientific methodology!! Kepler, however, did dismiss all forms of what today come down to us as pop astrology. West concluded, “Kepler’s astronomical discoveries were part of his life’s work to find the literal, physical proof of the Pythagorean notion of the harmony of the spheres” (p. 108). To Kepler, the physical embodiment of these harmonic principles, crystallized into astronomy, was manufactured from *Platonic solids*. Perhaps his solar system showing the Platonic Solids was not an astronomical diagram, but an astrological embodiment?! It was Kepler, after all, that gave science the elliptical nature of planetary motions! At the ‘hyper-astronomical’ level, John Martineau (2002), having access to greater quantities of astronomical data than Kepler, has placed Kepler’s perfect polyhedra (the Platonic Solids) under scrutiny. His analysis revealed remarkable accuracies (see percentages) based on the planet’s mean orbital ‘circles’ and geometrical patterns. Other ratios include phi, pi, and musical proportionals. For instance, Martineau stated, “The dodecahedron magically produces Venus’ orbit as the bubble within (99.98%), while the icosahedron defines Earth’s orbit through its bubble centres (99.9%)” (p. 34).
- 276 As Hall (2000a) stated, astronomers “ridicule the dreams of ancient seers and sages, deriding their symbols as meaningless products of superstition. Nevertheless, the intelligentsia of the modern world can never pass behind the veil which divides the seen from the unseen” (p. 436). Similarly, “In ridiculing the geocentric system of astronomy expounded by Claudius Ptolemy, modern astronomers have overlooked the philosophic key to the Ptolemaic system. The universe of Ptolemy is a diagrammatic representation of the relationships existing between the various divine and elemental parts of every creature, and is not concerned with astronomy as that science is now comprehended” (p. xxiv).
- 277 “In the Arab world, material alchemy has always been held in very low regard, and sometimes even identified with a kind of sorcery, whereas ‘interior’ and spiritual alchemy, on the contrary, was held in great honor, often designated under the name of *al-kīmiyā assa’ādah* or ‘alchemy of bliss’. The being that has arrived at the realization of certain interior states can, by virtue of the analogical relation between ‘macrocosm’ and ‘microcosm’, produce outwardly corresponding effects; ... capable of accomplishing metallic transmutations or other things of the same order, as a wholly accidental result involving none of the procedures of material pseudo-alchemy ... which latter relate exclusively to the corporeal domain” (Guénon, 1946/2004a, pp. 260-261).
- 278 f.f. subsection *Rationalism revisited*, in particular Guénon’s critique against Bergson’s vital intuition.
- 279 Simply stated, “an emphasis on the parts has been called mechanistic, reductionist, or atomistic; the emphasis on the whole holistic, organismic, or ecological [systemic]” (Capra, 1997, p. 17). The term *system*, influenced by the biochemist Lawrence Henderson, “has come to mean an integrated whole whose essential properties

- arise from the relationships between its parts, and “systems thinking” the understanding of a phenomenon within the context of a larger whole. This is, in fact, the root meaning of the word “systems,” which derives from the Greek *synhistanai* (“to place together”). To understand things systemically literally mean to put them into a context, to establish the nature of their relationships” (p. 27).
- 280 “*The crisis is a crisis in consciousness; a crisis that cannot anymore accept the old norms, the old patterns, the ancient traditions... and considering what the world is now, with all the misery, conflict, destructive brutality, aggression, and so on, man is still as he was. He is still brutal, violent, aggressive, acquisitive, competitive, and he has built a society along these lines [emphasis added]*” (retrieved from <http://www.jkrishnamurti.org>, April 1st, 2013).
- 281 Physiosphere, biosphere, and noosphere are terminologies of Wilber (2000b) to represents matter, life, and mind.
- 282 Historically, closely connected with the *closure principle*, there has been a strong association with mind either as an epiphenomena of the brain (*emergence*), often in absence—or denial—of consciousness; as a mind-body split (*modernised Cartesian dualism*); as mind being synonymous with brain, specifically the neo-cortex (*reductionism*), or as mind being within the brain.
- 283 A prime example where a model (*cup*) cannot resolve the paradox (through more analysis) since it simply disappears with a higher framework (*plate*).
- 284 I say *naturalised* as these bodies do not replace the five koshas or *sheaths* in Vedantic metaphysics or their equivalence in other spiritual traditions.
- 285 First, the body as a *biological organism* [UR], our flesh-based “physical locus of being-in-the-world” (p. 275). Second, the *ecological body* [R], since there is “no body without the *ongoing flow* [emphasis added] of organism-environment that defines our realities” (p. 276). Note that when theorists speak of a *self-environment unity* to indicate an Ego-Eco relationship, what they really mean—mostly unknowingly—is an *organism-environment unicity* which remains oriented toward the representation of flatland—Johnson does not make this error. Third, the *phenomenological body* [U] of lived-experience, “the living, moving, feeling, pulsing body of our being-in-the-world . . . that captures our reflective and self-referential perceptions, attitudes, and beliefs about our bodies at this phenomenological level” (p. 276). Fourth, the *social body* [LL], since we are situated and “composed of intersubjective relations and coordinations of experience” (p. 277). Fifth, the *cultural body* [LR] whose “cultural dimensions include gender, race, class, aesthetic values, and various modes of bodily posture and movement” (p. 277). Also note that Wilber switches social (exterior collective, interobjective) and culture (interior collective, intersubjective) around in his model. These important considerations are *very good*, but what has gone *very wrong* is that they are lost on a Model I perspective *whose very existence stifles, represses, or prevents them altogether*; the reason these bodies are not an immediate factor to our awareness is that a *rational society* [LL] built on an *industrial culture* [LR] has *dissociated* the mind from the brain based on the *reflection paradigm* (Wilber, 2000b)!
- 286 Egoic-rationality is not *egotistical* which represents an ego-centric and ethno-centric perspective and set of values.
- 287 Although the rational consciousness has replaced a mythic consciousness it has inevitably fallen into scientific mythology.
- 288 Individualism is seen as a primary good in secular Modernity whereas it is seen as a decay in metaphysical matters. As always, it’s best to keep both point-of-views and recognize that the loss of one sometimes entails a gain in the other. As long as we can keep both conceptions as such can we then re-gain transcendence while still maintaining individualism which is a necessary base and stage to pass through (but often seen as an end in itself).
- 289 f.f. Figure 24.
- 290 Etymologically *an-* (negation of) and *archy* (hierarchy) denotes “absence of principle.”
- 291 I cannot dwell on the spiritual practices to attain such a trans-formation to supra-formal domains of existence; I simply pause to point out that, like wisdom (and many others terminologies), Western, post-Modern contexts on transformation greatly depreciated the terminology spiritually and will continue to obscure without a proper metaphysical or spiritual context so desperately needed in education. I also emphasise again that to simply teach metaphysics misses the point entirely, both figuratively and literally if we are to envision Unity as the point in the centre of a circle whose circumference denoted manifestation and multiplicity (read: diversity). *Therefore, transformative educational theories are really translational educational theories: a counterfeit!*
- 292 What was considered common in all *was simply the lowest common denominator* at the sensory-motor level; in other words, subtle reductionism, where “significance is here completely collapsed to fundamentalness” (Wilber, 2000b, p. 437). By way of monological and instrumental-holistic reason, qualitatively insignificant and sensory-based mono-happiness was to “*extend* throughout the flatland order as an *ethical imperative*” (p.

- 437) of Modernity. In a disqualified cosmos, “Aristotle’s lowest Good is here the only good!” (p. 440). Simplicity is always at the expense of the higher.
- ²⁹³ c.f. Gebser’s integral consciousness versus rational consciousness as extolled by Georg Feuerstein. See *Rationalism revisited*.
- ²⁹⁴ The nature in nature mysticism results from a “mystical experience [that] moves beyond ordinary or conventional reality (the gross/waking realm), but still takes as part of its referent the gross/waking realm [emphasis added]” (Wilber, 2000b, p. 635); “identity with all manifestation” entails “all gross and gross-reflecting manifestation; nation-nature mysticism does not generally recognize the subtle or causal [formless/deep sleep] dimensions” (pp. 637-638).
- ²⁹⁵ “Those who know don’t talk; those who talk don’t know” (*Dào Dé Jīng*, 56, Red Pine Translation).
- ²⁹⁶ Technically speaking, *Being* is the furthest point in the domain of theology and the beginning of the domain of metaphysics (*Beyond-Being*).
- ²⁹⁷ The use of *strikeout* is intentional as it shows that what metaphysics is conceived to be is actually not the case at all—it has been usurped.
- ²⁹⁸ I note the familiar phrase, “distinction without separation” (Sanskrit: *abhedābheda*) from the writings of perennialist Ananda K. Coomaraswamy.
- ²⁹⁹ Guénon (1962/1995) continued: “why is there no perception of the danger of even seeming to seek corroboration, in what is most changeable and most uncertain, for doctrine that concerns immutable and unchangeable truths?” (p. 6).
- ³⁰⁰ And here we return to my initial comment on how complexity has taken a quantitative character as opposed to a qualitative one in like of the East.
- ³⁰¹ f.f. section *The Limitations of the Mathematical or Quantitative Order*.
- ³⁰² The relationship between One, Each, and All: “The ‘One’ refers to causal-level absorption, whether that causal level is viewed as Source (of involution) or Summit (of evolution) [or] the Absolute as Nondual (ultimate) Ground. ... By ‘One’ we mean the infinite, by ‘All’ we mean the sum total of finite manifestation, and by ‘Each’ we mean each particular manifestation, the Non-dual ‘stance’ is: One-in-Each, Each-is-One, Each-in-All, All-in-Each, One-in-All. The pantheistic stance as popularly advanced is: One-is-All, Each-in-All. The holographic ‘paradigm’ is: Each-in-All, All-in-Each; as an overall worldview, this is magical syncretism (which is why it is often hooked up with tribal worldviews). When the Nondual traditions speak of the One-in-the-Many and the Many-in-the-One, they mean the One-in-Each-and-All and Each-and-All-is-the-One. The realization of One-in-Many and Many-in-One, is, of course, common and definitive for all Nondual schools, whether of the East or the West” (Wilber, 2000b, p. 665).
- ³⁰³ And once we move beyond Being even *these* ill-considered concepts such as anteriority and posteriority cease to exist.
- ³⁰⁴ I can only pause to wonder how the myopic (subset) view of evolution as temporal *evolving apes* has undermined the Kosmic view as *unfolding gods*.
- ³⁰⁵ We may place Auguste Comte (1798 – 1857) in a historical context to re-mediate the social malaise derived from the French Revolution, ideally (and sincerely) situating the natural sciences as the basis for a new social order: a kinship to Descartes and his historical conditions of the Reformation. Under a complexivist lens, how close do these historical embodiments structure our modern education?
- ³⁰⁶ “Tantra regards the refinement of life forms (that is, scientific evolution) as merely the pattern of the manifested world. It is the blueprint, the design. It is not the source of life as we know it” (Saraswati, 2009a, p. 401). Here, the source of life is consciousness.
- ³⁰⁷ According to the Senior Abbot (Zhuchi) of the Temple of the Celestial Cloud and Professor Jerry Johnson (2013), practitioner and scholar of Daoism, “The ancient Chinese ideograms for Wuji are defined in Daoist Alchemy as ‘the infinite space embodied in-between matter, energy, and spirit.’ The character ‘Wu’ translates as ‘Nothing or Without:’ and the character ‘Ji’ translates as ‘the Ultimate or Extreme.’ Together, the term ‘Wuji’ translates as Ultimate Emptiness,’ and described the vast expansiveness of infinite space” (p. 30).
- ³⁰⁸ Guénon is referencing Meister Eckhart who coined the phrase “fused but not confused.”
- ³⁰⁹ Human endeavour, as researched by Charles Taylor, “had recourse to a hedonistic theory [pleasure/pain] of motivation. In an empirical-sensory world, there is only empirical-sensory motivation” (Wilber, 2000b, p. 436).
- ³¹⁰ As opposed to *ens rationis*. f.f. section *The Limitations of the Mathematical or Quantitative Order*.
- ³¹¹ These metaphysicians did not merely stop there, but went beyond. It was merely the “time” of Plato, Buddha, and Lao Tzu, and not them in particular.
- ³¹² Feuerstein is addressing rationality in its now *defunct form*. The rational-ego, by definition, is a world-centric stage of consciousness. Two different things.
- ³¹³ I would say understanding collapsed, but *understanding* here is mere empiric-analytic rationality of

- propositions (Aristotelian logic).
- ³¹⁴ f.f. subsection *Contemplation and action*.
- ³¹⁵ Not only has Comte misunderstood the *theological state* which he denoted as the intervention of supernatural agencies; not only has he misunderstood the *metaphysical state* which was really a demythologization, asserting that all “phenomena are associated with natural forces which are no longer transcendent in relation to things but inherent in them” (Guénon, 1946/1991, p. 136) with an increasing tendency for these different natural forces “to merge into the one ‘entity’ called ‘Nature’ ... [showcasing] Comte’s total ignorance of what metaphysics actually is [since] ‘Nature’ and natural forces obviously have to do with ‘physics’, not metaphysics” (p. 137); he is also accused of perpetuating the modern distortion of the theological ternary Deus, Homo, Natura, God, Man, Nature. Guénon adds that ‘God’ in such a ternary is not the transcendent Supreme Principle since the ternary implies a correlation between God and Nature whereas God “is beyond every distinction and cannot possibly be correlated with anything whatsoever” (p. 129). Therefore, the ternary represents the order of immanence, or non-supreme considerations. The term ‘Nature’ is tricky since in English it covers a wide spectrum of meanings. The theological ternary in question is ‘*manifested Nature*’ (Arabic: *aṭ-ṭabi‘ah*), not ‘*primordial Nature*’ (Arabic: *al‘Fīṭrah*).
- ³¹⁶ The mind-in-brain error being a result of such a ‘hardened’ worldview!
- ³¹⁷ Interestingly, with Varela’s ‘new biology’ in mind, Davis and Sumara (2006) stated that “theories [of coherence] focus on *internal fit* rather than *external match*” (p. 33) such that a coordination occurs between being and environment {body, mind} as opposed to a subordination of spirit as essential and independent over its corporeal and subtle modalities.
- ³¹⁸ For instance, the post-Modern context is prone to stating that there are no universals which is itself a universal statement.
- ³¹⁹ In-formative education we are generally taught that Zeno simply did not understand the calculus of limits which only solidify the notion of progress in the rational worldview. But truly, Zeno, who was utilising the philosophical argument of dialectical refutation, was also pointing toward the causal, formless One by way of “direct spiritual intuition whose historical origin (in the West) we must trace to Parmenides” (Wilber, 2000b, p. 656).
- ³²⁰ Although I appreciate and support their humanitarianism, I am against decontextualising hierarchical structures that are prevalent—and even necessary—if we are to transcend all reductionism and rationalism period. For instance, gross reductionism aside, if we are a part of Gaia—a hierarchy in itself!—then we cannot Ascend past her limitations as all sages would indicate. Once we *re*-turn toward hierarchical considerations (*re*-cognising that reason itself developed hierarchically) and overcome complicated-ness with complexity and non-linear *emergences*, we can place a “rational” culture as a *subset* in a greater (sub)set of *irreversible emergences*.
- ³²¹ From one perspective, we are seen quite low on the spiritual ladder. However, from a deeper context, our physicality is also the culmination or perfection of these higher levels: *spiritual evolution*.
- ³²² Whereas some are indifferent to the secularisation of the word hierarchy—a pattern where a spiritual term has degenerated, caused public dissent in various affairs, often political, and is tossed away as opposed to regaining its original meaning—I retain both depending on the point of view one takes. From a cosmogonic perspective looking down, hierarchy; from a cosmological point of view looking up, holon. Otherwise the term becomes not quite anthropomorphic, but certainly human-centered.
- ³²³ When spirituality collapses to the psychic domain, the latter must then take into account the former in a pre/trans fallacy (Wilber, 2000b). Similarly, anything that extends beyond the current existence of an individual appears to “go beyond” them but in fact they remain solely within the corporeal or psychic order simply because the individual domain, like any domain in manifestation, is capable of indefinite growth or extension; “if no more than a mere waste of time and effort were involved, the harm would not after all be so very great, but generally speaking the being that becomes attached to such things soon becomes incapable of releasing itself from them or passing beyond them, and its deviation is then beyond remedy; the occurrence of cases of this kind is well known in all the Eastern traditions, where the individuals affected become mere producers of ‘phenomena’ and will never attain the least degree of spirituality. But there is still something more, for a sort of ‘inverted’ development can take place, not only conferring no useful advantage, but taking the being ever further away from spiritual ‘realization’, until it is irretrievably astray in the inferior ‘prolongations’ of its individuality recently mentioned, and through these it can only come into contact with the ‘infra-human’” (Guénon, 1945/2004, p. 238).
- ³²⁴ In dealing with higher holons what translates in physicality is mere brain wave stated as opposed to behaviouralism which situates itself on lower holons.
- ³²⁵ Since reason is in the noosphere alone, the relative autonomy is so high from the environment that it can produce an “ecological nightmare” or biospheric dissociation (a true mind-body split) resulting from a

-
- pathological agency.
- ³²⁶ Yet another historical structural step into philosophical materialism. And we again see Pythagoras as someone more than a simple mathematician discovering his famous theorem with a clever mind, a stick, and some sand.
- ³²⁷ I need no citations as it is self-evident that all web-of-life theories and theorists prescribe to humans as being a “part of” Gaia. Admirably in its own right as it showcases a global and biospheric awareness, however, it is frustrated as the emerging Eco-Noetic movement (balanced *yin-yang*) is trapped in a flatland framework that built the Eco-Romantic movement (too *yin*) against an era of Ego-Enlightenment thinkers (too *yang-in-yin*).
- ³²⁸ Once I took cognisance of my cup-plate model—which was a plate in itself—I had a similar realisation. Basically all negative “grasping” dissolved.
- ³²⁹ Dr. Robert J. Gilbert, a leading metaphysical scholar, teacher, and practitioner, would make the distinction between an older form of spirituality and a newer form of spirituality based on Rudolf Steiner’s teachings. Instead of dissolving back into the bliss of the One (nondual), we require to bring together both Unity (the reality behind all living things) and the reality of a separate, crystallized Higher Ego that is truly an independent spiritual being of Love (Union) and Freedom (Independent free will). Unfortunately with anti-metaphysical schooling we have *unfreedom* and *un-Love*.
- ³³⁰ And place scientific mythology in its place. Moreover, it is the very eradication as opposed to preservation (with negation) that begets repression, mind-body dissociation, and *Phobos*.
- ³³¹ Steiner (1984) called the past several centuries a time for humanity to *spiritually sleep*. Humanity had to develop rational, abstract thinking for materialistic conceptions in order to avoid weakening our ancient (spiritual) faculties developed in earlier epochs. Only when we tore ourselves from the heavens could humanity become acquainted with the individual and personal qualities. However, he emphasised that present-day humanity is experiencing an ‘awakening’ to metaphysical realities—himself a perfect example. While materialism grounded our perception into sense-perceptible form, allowing us to see and master the outer surfaces of phenomenon so meticulously that we are able to express natural laws ... these same faculties of thought *penetrated so little below the surface!!* In earlier times it was otherwise, the spiritual world was quite open; yet their faculties were rather involuntary and *lacking freedom* (Freedom is a large part of Steiner’s philosophy). According to Steiner, perception of material reality was invariably mingled with what came from aphoristic clairvoyance. They saw external existence veiled in the phantasmagoria of visions. In the case of Plato, he expressly described sight consisting in the kind of fire going out from the eye to the objects. This indicates to Steiner that Plato still knew something about the supra-sensible activity in sight. Steiner spoke influentially on the new clairvoyance.
- ³³² The higher three of particular concern to occult sciences and genuine spiritual seekers.
- ³³³ Steiner (1907/1996) added, “There is, of course, no doubt that a truly realistic art of education, such as that indicated here, will make its way slowly. This is, indeed, because of the whole mentality of our age, which will continue for a long time to consider facts of the spiritual world to be the empty talk of wild imagination, while it takes vague and completely unreal phrases as the result of realistic thinking” (p. 17).
- ³³⁴ From these considerations and framework derive much of Steiner’s (1907/1996) pedagogy, including (1) narratives spoken, not read, (2) reading is pushed much farther back to create an etheric and astral foundation for reading comprehension later on, (3) symbolic parables to represent nature prior to dry intellectual conceptions, as “only to the materialistic thinker do [intellectual concepts] appear as the sole means” (p. 29) for comprehension, (4) memorisation as a key feature prior to intellectual discovery and discernment since “so much talk against “mindless rote learning” is simply materialistic prejudice” (p. 31) while “nothing is more harmful to children than to awaken independent judgment too early,” and (5) an abandonment of an exclusive sense-perceptual curriculum; “if people could only see, as the spiritual investigator sees, the desolation achieved in soul and body by instruction based on external perception alone, they would never insist on it as strongly as they do” (p. 32). These all comprise (6) “the task of a genuine pedagogy is to separate the hereditary from the nonhereditary” (p. 75). All in all, “People will soon recognize that to live better they must study the hidden worlds, since the materialistic approach *leads to a crisis* in nearly every area, but primarily in health care and *education* [emphases added]” (p. 41). Therefore, “great care must be taken that teaching is brought to life. Much is spoiled in the child if it is burdened with too much that is dull and lifeless” (p. 61) including non-participatory picture books, prefigured building blocks and finished geometrical shapes, and other “mass-produced, lifeless objects” (p. 61). To play and to create should be done from scratch. One prime example is faceless dolls—both in creation and in conferring imagination onto empty surfaces as opposed to having a pregiven face.
- ³³⁵ *Karma* denoted action and rite denoted order. Metaphysically, karma is transposed into *ritual action*. See point below and footnote above.
- ³³⁶ To Coomaraswamy (1987) there is a difference between “a lack of ‘interest’ with what we mean by ‘apathy’

- and the inertia that we suppose must be the consequence of such an *ataraxia* [*ἀταραξία*; “tranquility”]” (p. 156). Apathy is “an independence of pleasure-pain motivation; but it does not exclude the notion of an activity *κατὰ φύσιν* [by nature], but only that of an activity compelled by conditions not of our own choosing. Apathy is spiritual equipoise and a freedom from sentimentality” (p. 156).
- ³³⁷ Metaphysically, such a perspective relates to the *unmoved mover*, and “the activity of God is called a ‘game’ precisely because it is assumed that he has no ends of his own to serve; it is in the same sense that our life can be ‘played,’ and that insofar as the best part of us is in it, but not of it, our life becomes a game. At this point we no longer distinguish play from work” (Coomaraswamy, 1987, p. 158). Elsewhere, “this play [of God] was played eternally before all creatures” (p. 148).
- ³³⁸ Platonic *Justice*. As Coomaraswamy (1987) indicated, “what is really meant to be God’s toy and dance accordingly is to have made His will our own; to play with him on the stage rather than for ourselves; and at the same time to share his point of view who looks on from above ... to have become no longer the victims, but the spectators of our own fate” (p. 149).
- ³³⁹ In his *Summa Theologica* St. Thomas Aquinas wrote, “Bodily refulgence is *natural* in a glorified body ... but miraculous in a natural body” (as cited in Coomaraswamy, 1987, p. 154).
- ³⁴⁰ As Guénon (1962/1995) noted, “the correspondence in the human being with this upper opening is the *brahma-randhra*, that is, the orifice situated at the crown of the head, by which the subtle axial artery, the *sushumnā*, is in uninterrupted connection with the ‘solar ray’” (p. 240).
- ³⁴¹ Play is also connected to the ascending fire (*Agni*) above the head. In the esoteric Christian tradition we have a descending flame (*dove*); “while *in divinis (adhidevatam)* ‘overhead’ will mean ‘in the sky’ [supraformal manifestation], with reference to a given person here below (*adhyātmam*) it will mean *just* overhead” (Coomaraswamy, 1987, p. 154).
- ³⁴² Guénon stated that symbolism is “particularly well adapted to the exigencies of human nature, which is not a purely intellectual nature but requires a sensory basis from which to raise itself to higher spheres. We must take the human make-up as it is, one and multiple in its real complexity—something all too apt to be forgotten ever since Descartes attempted to establish a radical and absolute separate between soul and body” (1962/1995, p. 7).
- ³⁴³ f.f. Figure 2.
- ³⁴⁴ Ayahuasca is a decoction between DMT-containing plants and the Banisteriopsis caapi vine acting as a monoamine oxidase inhibitor. How the synergistic effects were found between these plants is unknown. Since basic trial and error is out due to the overwhelming diversity in the rainforest, perhaps the plants spoke to the shamans—or actual spirits or psychic identities? Who really knows based on modern research?
- ³⁴⁵ The pineal gland itself is far from inactive, having a large influx of blood flow. Next to the kidneys “it has the second largest blood flow of all the organs in the body” (Saraswati, 2009a, p. 596) per unit weight. Regarding the ajna chakra, “The pineal is regarded as the *physical equivalent* [emphasis added] of the third eye—the intuitive eye of revelatory knowledge. It is the eye of illumination. It is the physical organ that focuses knowledge or experience of more subtle realms of being into the brain for comprehension by the individual” (p. 596). However, to interpret the pineal gland as the third eye is incorrect, as chakras are not in the corporeal order (Goswami, 1999). Furthermore, the third eye is posited in a variety of places, especially *between* the pituitary and pineal. There is also a “third eye tunnel” ranging from the brow to the back of the head according to the Clairvision School of Samuel Sagan.
- ³⁴⁶ The science of *hatha* yoga does not simply touch the physical, nervous, and pranic (etheric-bioplasmic) aspects of the human framework. Such a view is a gross oversimplification as *hatha* “has far more implications than physical fitness alone” (Saraswati, 2009a, p. 625); when properly understood, *hatha* “is composed of the two syllables *ha* and *tha*. The syllable *ha* means ‘the sun’ and *tha* means ‘the moon’. Therefore, hatha yoga is concerned with attaining harmony between the sun and moon aspects of our being. The moon implies *ida nadi* which is often called the *chandra nadi* (chandra - moon). The sun represents the pingala nadi, which is often called the *surya nadi* (surya - sun). ... Hatha yoga is concerned with balancing the sympathetic and parasympathetic nervous systems. It is concerned with balancing flows in the psychic realms of being; with balancing the tendency of mental introversion and extroversion. In the highest sense, it is concerned with balancing and harmonizing inner awareness with external expression and relationships and of inaction with action [actionless action in the sushumna nadi]. Hatha yoga is concerned with balance at all these different levels of being, making it an elevated [Ascending] path of practice, with far more implications than are usually attributed to it” (p. 625).
- ³⁴⁷ As Wilber further stated, “From Dzogchen Buddhism to Vedanta Hinduism, for example, we often find statements such as ‘that which moves is not Real.’ This is not to deny relative motion; it is rather an attempt to directly point to primordial awareness which is prior to motion or rest, which doesn’t enter the stream of time as a particular object (moving or resting), but rather is the immediateness—the opening or clearing—in which

- all objects arise and fall. This primordial awareness (itself neither at rest nor in motion), can in fact be rather easily pointed out to somebody using these types of ‘pointing out instructions’ (as evidenced, for example, in Dzogchen training)” (p. 657).
- 348 I am reminded of the Zen *koan* that asks if two hands clapped together make a sound, what does the sound one hand make?
- 349 In Matthew (22:37): “You shall love the Lord your God with all your heart [*spirit/intellect*], and with all your soul, and with all your mind” (ESV).
- 350 Tiller reminds us of the scientific conflict between Michael Faraday (1791 – 1867), who is well known, and Baron Karl Ludwig von Reichenbach (1788 – 1869), who had numerous scientific contributions yet remains omitted in modern school texts (interobjective conditioning). Both studied EM phenomena but Faraday concentrated on what comes down today as James Clerk Maxwell’s (1831 – 1979) modern electromagnetism while von Reichenbach studied magnetism with clairvoyant subjects and developed the concept of an (subtle) *Odic Force*. History shows “Faraday emerged the victor. Thus, the subtle magnetic interactions aspect tended to get pushed aside and excluded” (2001, p. 32). Applying pattern two, these two were not operating on the same domain and are really not in conflict. However, so far magnetic monopoles remain elusive to the scientific community.
- 351 The quantum founders attempted to keep the wave-particle duality in the same reference frame whereas Tiller (2001) separates them into a duplex reference frame: “in the conventional physics model, wave-particle duality was a surprising observation [but] in the dual four-space construct ... it springs naturally from the inversion relationship between the two spaces” (p. 67). Similar ingenious mathematical manipulation to accommodate discrepancies in the big-bang model (cosmological constant, kinetics of agglomeration of physical matter, bell’s theorem, and so on) are naturally resolved from his original population of 4D inversed dual-space correlates of physical and etheric sublattice networks embedded within greater superlattice structures. Parapsychological phenomenon such as dowsing, levitation, acupuncture, and homeopathy are all viable within his model.
- 352 Similarly, it is the “acupuncture meridian/chakra system [of] the [subtle] human body system that is at this higher thermodynamic free energy per unit volume state” (Tiller, 2007, p. 89).
- 353 One recalls in *What is Life?* by Erwin Schrödinger that the source of life is *negative entropy* or *negentropy*.
- 354 One perfect example is seeing spirit guides, faeries, and so on.
- 355 The physical organ is undergoing a scientific revolution at the HeartMath Institute which has found remarkable properties of the heart other than a mere “pump” for blood. To name a few, the heart has its own brain, a *heart intelligence*, and precedes the brain in the ontogenic process; it is the source of pre-cognitive intuition; and it has its own electro-magnetic field that is much larger than the brain’s.
- 356 Philosophically, I wonder if perhaps the Earth is indirectly forcing us to grow spirituality or grow from an incoherent state to a coherent state?!
- 357 Daskalos (1912 – 1995), which is Greek for *Teacher*, was a possessor of spiritual gifts including remembrance of former lives such as an Essene closely connected to Joshua Immanuel, a fluency in ancient Egyptian hieroglyphics from his life as an Egyptian adept, and the capability to perform miraculous healing procedures by leaving his body and creating an etheric hand so strong that it could be felt in the corporeal order of the world (Robert Gilbert, personal communication, May 10, 2013). Daskalos traced the origins of the *Symbol of Life*—a Christian alternative to the Kabbalistic *Tree of Life*—to the 13th and 14th centuries B.C. passed down from Ancient Egypt where it was already known.
- 358 It is difficult to discern whether Tiller references the Dan Tien points (Lower, Middle, Upper) which are 3 astral *śakras* or the 7 etheric *śakras* which are better known in Hindu symbolism. To Steiner, etheric energy rises from the heart to the brain in waking life (when the ‘will’ is least active) and reverses in dreaming life (when the ‘will’ is most active).
- 359 For instance, “one can create a mental image at this centre in the *hridayakasha* (etheral space at the heart centre), chant a mantra, continually repeat an enquiry about a certain aspect of existence” (Saraswati, 2009a, p. 629) and so on.
- 360 Guénon (1946/1991) adds a curious footnote: “One could say that he [*sic*] already no longer belongs to this world, but that it is on the contrary this world that belongs to him [*sic*]” (p. 69).
- 361 “The dweller in the vital center is, from the physical point of view, ether; from the psychic point of view, it is the ‘living soul’, and thus far we have not transcended the realm of individual possibilities; but also, and from the metaphysical point of view ... it is the principial and unconditioned ‘Self’” (Guénon, 1925/2004, p. 36).
- 362 Another case of the soul collapsing to the mind because of their resemblance. At death, the *vital breath* having absorbed our outward and (one) inward faculties (*manas*) retires into the centre of our human individuality (*jīvātmā*). See also previous note on the various dwellers of the centre.
- 363 Therefore, the pinda is not equivalent to our bodily embryo which acts as its symbol.

- ³⁶⁴ The symbol of the bridge both *separates* and *links* Heaven and Earth. It is the *sūtrātmā* or the vertical pillar of the Axial World found in Plato's *Timæus* that connects the multiple stated of the being where the bridge itself designated the *Middle Way*. Moreover, the English word *beam* has a two-fold meaning "which designates both a girder and a luminous ray" (Guénon, 1962/1995, p. 260) connected to *Buddhi* or the *Fiat Lux* of Genesis.
- ³⁶⁵ Read *union*; f.f. subsection [The esoteric side of the Platonism: a return to its symbolist roots](#).
- ³⁶⁶ By man Guénon means primordial man or true man and by Cosmos he means Kosmos. Here is another instance where soul collapses to mind.
- ³⁶⁷ f.f. subsection *The perennial philosophy and the eternal present*.
- ³⁶⁸ Grimes (1998) is referring to *philosophical midwifery* because Socrates "assists in the delivery of men who are pregnant with either true ideas or with false beliefs" (p. 3). Philosophy midwifery is a *new paradigm* in psychotherapeutic theory with scientific validation (Grimes & Uliana, 1998).
- ³⁶⁹ *The Fourth Way* is a spiritual system developed by G. I. Gurdjieff that differs from the previous three ways to achieve Enlightenment. The first was the way of the Fakir who "works on the physical body, on conquering pain. The second way is the way of the Monk. This way is shorter, more sure and more definite. It requires certain conditions, but above all it requires faith, for if there is no faith a man cannot be a true monk. The third way is the way of the Yogi, the way of knowledge and consciousness" (p. 104). The Fourth way is not a combination of these, as they are often already situated in mixed form. It is a new way for an 'over-educated' Western consciousness and invaluable for a Western spiritual seeker.
- ³⁷⁰ f.f. *personagium*, the Latin root for *mask* in section *Quantitative Crisis*.
- ³⁷¹ f.f. *krinien* in section *Quantitative Crisis*.
- ³⁷² As Grimes (1998) stated, "It is not unusual for people at this stage to reflect on the positive features of and to *defend* the pathologos, for they see that it did provide a role, a way of relating, a set of values; and without these one has to risk functioning *openly* and trusting in one's own *integrity*. Yet there is this experience of a sense of emptiness, an emptiness experienced *negatively*. At such times, a *deep bitterness* and sense of *isolation* may develop, but it is always balanced with the knowledge that one's maturity is its own reward. It is, of course, of the utmost importance for the children to learn how they should live and act within the family; it follows that there should be models and ideals to prepare them for life. But when they adopt models which have been derived from the pathologos scene, then those models are *pathological* [emphases added]" (pp. 29-30).
- ³⁷³ For added context, Krishnamurti and Steiner both come from the Theosophical Society. The word theosophy etymological means *divine wisdom* and the Traditionalist School would throw a heavy critique against the founder's spiritual lineage: the lack of doctrine, the misrepresentation of Eastern doctrine, the early anti-Christian mentality, Blavatsky's journey to Tibet to receive initiation being a farce, and the usurping of a doctrinal word (*theosophy*) simply to name a few (Guénon, 1921/2004). But these points are far beyond the scope of the paper given many have never even heard of such a spiritual society: a testament to our mechanical, material, and anti-metaphysical schooling! Even most Waldorf teachers today do not realise their educational framework is derived from occult sciences—thinking instead it is some eco-holistic theory like Montessori! Any critique against Theosophy would first require an understanding and appreciation of what the Theosophical Society actually accomplished. Krishnamurti's astronomical name was Alcyone and was believed to embody a *Christic* energy so the society took as its mission the development of the *vehicle* for the Messianic *World Teacher* to operate from. Steiner was not against Krishnamurti, as many falsely believe, but against the way he was raised, saying they would endanger the boy and develop within him a crystallisation of *ego-centric* tendencies, that he was better off if left in India to grow *naturally*. It was for these reasons (and more) that Steiner eventually branched away from the Theosophical Society to develop Anthroposophy (*human wisdom*) a spiritual science which the Waldorf model is a branch of. It should be known that Krishnamurti abandoned his designated role inherited from his Theosophical upbringing. He then traveled the world for the next 70 years to spread the spiritual message *that Truth is a pathless land* and self-knowledge, the foundation for education, has nothing to do with individuality! His teachings have been invaluable for my spiritual growth.
- ³⁷⁴ Similarly, I am advocating Mindfulness as an *emergent framework* and not a *reformation* based upon complicated thinking which beget more reform.
- ³⁷⁵ The *special relationship* is described as the "cultivation of the totality of the mind, and not merely the giving of information" (p. 3) and that "it is essential for the mind [of the student] to be aware of its own conditioning, its own motives and pursuits" (Krishnamurti, 1981, p. 3). Therefore, "how one taught becomes very important" (p. 3) since "most people think that learning is encouraged through comparison, *whereas the contrary is the fact*. Comparison brings about frustration and merely encourages envy, which is called *competition*. Like other forms of persuasion, *comparison prevents learning* and *breeds fear*. Ambition also

- breeds *fear* [emphases added]” (pp. 2-3). Now we cannot understand this relationship in the positivist model of cognition or even the constructivist one! Yet these are all that are taught today since complexity science is so new. However, there is a little-known third model from the complexity science of neurophenomenology called *enactivism*. See *The New patterns of nature*.
- ³⁷⁶ Both politically, as understood in post-Modern contexts, but also in the spiritual context of student-guru relationship. However, context is required. First, Krishnamurti stated correctly that the guru is the ‘one who points.’ But so much of his Eastern audience(s) had recourse to the student-guru relationship but felt utterly lost in it: it had become either degenerate or deceitful (false gurus). In older times the student had to sacrifice everything and trust the guru unquestionably, which comes with benefits (no mental perturbations) and problems (trust). Second, the transmission of spiritual lineages applies even today but the guru-student relationship is far removed from the teacher-student relationship. Third, Rudolf Steiner believes our consciousness is different and we require an updated spiritual tradition so people can access spiritual truths without the aid of a guru—but it is extremely difficult (Saraswati, 2009a).
- ³⁷⁷ On rationality versus emotions, see subsection *Not two, but three*. It is also interesting to note that *prāṇāyām* (Hindu breathing technique) aims at simultaneous breathing through both nasal passages which stimulate both regions of the brain; we usually alternate our breathing through one nasal passage which activates the region opposite the side of the open nasal passage. Therefore, we alternative activity within the brain (Saraswati, 2002). Of course, this is not black and white and both regions are always active to some degree, but brain activity has a rhythm to it, it is certainly not static!
- ³⁷⁸ Atheists and scientists are nonexempt ... often being the *most* conditioned of minds!! And I speak from direct experience.
- ³⁷⁹ These considerations tie intimately to the *pathologos* and imitation, since “you *like* your conditioning because you dare not go beyond. ... [T]herefore you help to create the barriers which hold you. *This is the prison in which most of us are caught* [emphasis added]” (p. 54).
- ³⁸⁰ The dictionary definition of mediocre is derived from Latin *mediocris*, “in a middle state, literally, at middle height” from = *medi(us)* or “mid” and *ocris* or “rugged mountain,” cognate with Greek *ókris* which is akin to *ákros* or “apex” (retrieved from dictionary.reference.com/browse/mediocre). Krishnamurti etymologically stated that “most of us are mediocre—we *just go half way up the hill*. Excellence means going to the very top of it and we are asking for excellence [in the process of living and education]. Otherwise we shall be smothered, destroyed, as human beings, by [ideologies]. That excellence can only come into being when there is clarity and compassion without which the human mind will destroy human beings, destroy the world” (retrieved from www.jkrishnamurti.org); elsewhere, he stated that “this mediocrity that all of us seem to have can be broken through when there is no sense of *comparison, measurement*. It gives you an immense *freedom*. Where there is freedom there is no mediocrity” (retrieved from www.jkrishnamurti.org). Therefore, “a mediocre mind can never be in revolt; it can only move from one *conditioned state* to another, from one influence to another” and “when *pure feeling* is corrupted by the *intellect*, there is mediocrity. That is what most of us are doing. Our lives are mediocre because we are always *calculating*, asking ourselves whether it is worthwhile, what profit we will get, not only in the world of money, but also in the so-called spiritual world” (retrieved from www.jkrishnamurti.org).
- ³⁸¹ In reference to St. John’s Gospel, *In the beginning was the Word (Logos)*. Guénon (1962/1995) wrote that “The Word, the Logos, is at once Thought and Word; in Himself, He is the Divine Intellect, which is the ‘place of possibilities’; in relation to us, He is manifested or expressed by Creation, in which are realised in actual existence certain of those possibilities which, as essences, are contained in Him from all eternity. Creation is the work of the Word; it is also, and by this very fact, His manifestation, his outward affirmation; and this is why the world is like a divine language for those who know how to understand it: *Caeli enarrant gloriam Dei* (The heavens declare the glory of God, Ps. xix: 2)” (p. 15).
- ³⁸² To Coomaraswamy (1946/2007), whose works frequented Platonic thought, the artist [social philosopher] who practices the ancient arts (*tēn tōn technōn dēmiourgian*) “does not earn wages by his [*sic*] art. He [*sic*] works by his [*sic*] art, and is only accidentally a trader if he [*sic*] sells what he [*sic*] makes. Being a vocation, his [*sic*] art is most intimately his [*sic*] own and pertains to his [*sic*] own nature, and the pleasure that he [*sic*] takes in it perfects the operation. There is nothing he [*sic*] would rather work (or “play”) at than his [*sic*] making; to him [*sic*] the leisure state would be an abomination of boredom. This situation, in which each man [*sic*] does what is naturally (*kata physin* = *Skr. svabhāvatas*) his [*sic*] to do (to *heautou pratein* = *Skr. svadharma, svakarma*), not only is the type of *Justice* [emphasis added], but furthermore, under these conditions (i.e., when the maker loves to work), “more is done, and better done, and with more ease, than in any other way. (Republic 370C; cf. 347E, 374BC, 406C.)” (p. 17). Coomaraswamy stated that this is the precise opposite of Adam’s Smith’s division of labour because “in Plato’s division of labor it is taken for granted not that the artist is a special kind of man [*sic*] but that every [*sic*] man is a special kind of artist; his

- [sic] specialization is for the good of all concerned, producer and consumer alike. Adam Smith's division benefits no one but the manufacturer and salesman. Plato, who detested any "fractioning of human faculty" (Republic 395B), could hardly have seen in our division of labor a type of *justice* [emphasis added]. Modern research has rediscovered that "workers are not governed primarily by economic motives" (see Stuart Chase, "What Makes the Worker Like to Work?" Reader's Digest, February 1941, p. 19)" (pp. 18-19). Modern game theory reaches the exact same conclusion: motivation is not economically based!
- 383 As Socrates himself said, and Plato wrote in the *Theteætus*: "but the greatest thing about my art [philosophical midwifery] is this, that it can test in every way whether the mind of the young man [sic] is bringing forth a mere image, an imposture, or a real and genuine offspring" (as cited in Grimes, 1998); thus, "the pathologos is an *image* or *shadow* of a transmission of a teaching because no opinions are taught, no understanding is reached, and since no conformation of the pathologos is possible, it can never reach or be called knowledge [emphases added]" (Grimes, 1998, p. 71).
- 384 On a similar note, Nietzsche is quoted as saying: *There are no facts, only interpretations and all things are subject to interpretation whichever interpretation prevails at a given time is a function of power and not truth.*
- 385 A point made clearer in section *The Limitations of the Mental*.
- 386 "Especially in Western culture it is considered that a man may possess great knowledge, for example he may be an able scientist, make discoveries, advance science, and at the same time he may be, and has the right to be, a petty, egoistic, caviling, mean, envious, vain, naive, and absent minded man. ... People of Western culture put great value on the level of a man's knowledge but they do not value the level of a man's being and are not ashamed of the low level of their own being. They do not even understand what it means. And they do not understand that a man's knowledge depends on the level of his being. ... Such preponderance of knowledge over being is observed in present-day culture" (Ouspensky, 1949/2001, p. 65).
- 387 For clarity and context to the reader he continued: "If knowledge gets far ahead of being, it becomes theoretical and abstract and inapplicable to life, or actually harmful.... The reason for this is that knowledge which is not in accordance with being cannot be large enough for, or sufficiently suited to, man's [sic] real needs. ... The idea of the value and importance of the level of being is completely forgotten. And it is forgotten that the level of knowledge is determined by the level of being. Actually at a given level of being the possibilities of knowledge are limited and finite. Within the limits of a given being the quality of knowledge cannot be changed, and the accumulation of information of one and the same nature, within already known limits, alone is possible. A change in the nature of knowledge is possible only with a change in the nature of being. ... It may surprise you if I say that the chief feature of a modern man's being which explained everything else that is lacking in him is sleep. A modern man lives in sleep, in sleep he is born and in sleep he dies. ... [W]hat knowledge can a sleeping man have?" (p. 65).
- 388 "'Do not pretend that by meditation you are going to become Buddha,' says Huang Po. 'You have always been Buddha but have forgotten that simple fact. Hard is the meaning of this saying!'" (Wilber, 2000b, p. 339).
- 389 As Steiner (1991) stated, "He [sic] might unite in himself [sic] the whole sum of knowledge of his [sic] time; but if he [sic] does not feel and realise the significance of self-knowledge, then it is all, in the higher [spiritual] sense, a blind knowledge" (pp. 9-10).
- 390 Guénon (1927/2004) continued: "Moreover, even if modern science should happen by chance to reach, by a roundabout route, certain conclusions that seem to be in agreement with some of the teachings of the ancient traditional sciences, it would be quite wrong to see in this a confirmation—of which these teachings stand in no need; it would be a waste of time to try to reconcile such utterly different points of view or to establish a concordance with hypothetical theories that may be completely discredited before many years are out. As far as modern science is concerned, the conclusions in question can only belong to the realm of hypothesis, whereas the teachings of the traditional sciences had a very different character, coming as the indubitable consequences of truths known intuitively, and therefore infallibly, in the metaphysical order" (p. 46). He also stated that 'apologetics' that claim to agree with science "runs the risk of linking religion with changing and ephemeral conceptions, from which it must remain completely independent" (p. 46). This would require a completely different comprehension of what *religion* is! This is significant since my interpretation as an atheist was that science was a sophistication of our understanding on nature whereas older cultures saw patterns in nature and described them in such a manner that they became applicable to everyday processes of living (how romantic of me!) Now I understand myth in a very different way.
- 391 While all effort in manifestation produces good qualities and bad, the latter is certainly the quality of exploitation: whether of plant, animal, human, or even mineral. There is a severe lack of *eco-justice* (Bowers, 2010). A familiar meme described the situation aptly: *People were created to be loved. Things were created to be used. The reason why the world is in chaos is because things are being loved and people are being used.*
- 392 As Schuon (1970/2009) noted, "Being is Equilibrium, immanent Justice; we are disequilibria. A drop of the

- ocean cannot rise up against water; [To] revolt against Being is to revolt against ourselves” (p. 64). Therefore, “theoretical teaching must not exhaust in advance the capacities for awareness it aims to awaken in the disciple; the disciple needs light, but he also needs an element of obscurity that will act as a leaven in connection with the light received and that will help him release the element of light he carries within his own substance; instead of ‘obscurity’ we might also say ‘generative disequilibrium’, for which the koans of Zen Buddhism doubtless provide the best example” (p. 193). I have also read that equilibrium is connected to the *Edenic* state.
- ³⁹³ As Melchizedek (2000a) stated, “it will become clear that your body is the measuring stick or the holographic image of the universe, and that you, the spirit, play a more important role in life than society has taught us” (p. 226).
- ³⁹⁴ Similarly, Barber (1961) has shown similar resistance from scientists to (sometimes their own) scientific findings.
- ³⁹⁵ Since modern science has “irremediably enclosed in [a] relative and narrow realm, ... thereby voluntarily breaking all connection with transcendent truth and supreme wisdom, it is only a vain and illusory knowledge, which indeed comes from nothing and leads to nothing” (Guénon, 1927/2004, p. 54).
- ³⁹⁶ f.f. section *The Limitations of the Mathematical or Quantitative Order*.
- ³⁹⁷ Guénon (1927/2004) stated that “in a traditional civilization it is almost inconceivable that a man [*sic*] should claim an idea as his [*sic*] own; and in any case, were he [*sic*] to do so, he would thereby deprive it of all credit and authority, reducing it to the level of a meaningless fantasy: if an idea is true, it belongs equally to all who are capable of understanding it; if it is false, there is no credit in having invented it. A true idea cannot be ‘new’, for truth is not a product of the human mind; it exists independently of us, and all we have to do is to take cognizance of it; outside this knowledge there can be nothing but error” (pp. 56-57). Guénon’s words should be taken in context from a high stage of consciousness.
- ³⁹⁸ If we are to understand *materia secunda* as simply substance and relative, than what is relatively essential in one *loka* may be substantial in a higher *loka*.
- ³⁹⁹ Further, “From the point of view of *scientia sacra* what caused this profound way of envisaging reality to become unintelligible and finally rejected in the West was the loss of that intellectual intuition which destroyed the sense of the mystery of existence and reduced the subject of philosophy from the study of the act of existence (*esto*) to the existent (*ens*), thereby gradually reducing reality to pure “it” divorced from the world of the Spirit” (p. 124).
- ⁴⁰⁰ Also: “Most extraordinary of all is perhaps the claim to set up this abnormal civilisation as the very type of all civilization, to regard it as ‘the civilization’ par excellence, and even as the only one that deserves the name. Extraordinary too, and also complementary to this illusion is the belief in ‘progress’, considered no less absolutely, and naturally identified, at heart, with this material development that absorbs the entire activity of the modern West” (Guénon, 1924/2004, p. 11).
- ⁴⁰¹ Guénon stated most knowledge gained from education is *reflected knowledge* and that knowledge *par excellence* is an *identification* with the object: “It is knowledge that serves as the ‘unmoved mover’ of action; it is clear that action belongs entirely to the world of change and ‘becoming’; knowledge alone gives the possibility of leaving this world and the limitations that are inherent in it, and when it attains to the unchanging—as does principial or metaphysical knowledge, that is to say knowledge in its essence—it becomes itself possessed of immutability, *for all true knowledge essentially consists in identification with its object*. This is precisely what modern Westerners overlook: they admit nothing higher than *rational or discursive* knowledge, which is necessarily indirect and imperfect, being what might be described as *reflected knowledge* [emphases added].” (1927/2004, pp. 37-38).
- ⁴⁰² “In ancient times, and especially in the Middle Ages, the natural bent of Westerners for action did not prevent them from recognizing the superiority of contemplation, or in other words, of pure intelligence. Why is it otherwise in modern times? Is it because Westerners have come to lose their intellectuality by over-developing their capacity for action that they console themselves by inventing theories that set action above everything else, and even, as in the case of *pragmatism*, go so far as to deny that there exists anything of value beyond action; or is the contrary true, namely, that it is the acceptance of this point of view that has led to the intellectual atrophy we see today?” (Guénon, 1927/2004, pp. 35-36).
- ⁴⁰³ Philosophy “is interesting mainly because it expresses, in as clear a form as possible, the tendencies of this or that period, much more than it actually creates them; and even if it can be said to direct them to a certain extent, it does so only secondarily and when they are already formed” (1927/2004, p. 59).
- ⁴⁰⁴ Seriousness is not something that *lies beyond* playfulness, but instead is placed at the same level.
- ⁴⁰⁵ I wonder how close this connects with the Kingdom representing the Kabbalah *Malkuth*?
- ⁴⁰⁶ Alan Watt (1915 – 1973) was a Westerner that brought Zen philosophy to the New World (or colonial West). He reminds us that memory and anticipation exist only now, and to strive for *now-ness* is to strive for what

- already *is* (Hartley, 1994).
- 407 Hall (2000a) stated, “Pythagorus laid special emphasis upon the *philosophic life* as a prerequisite to wisdom. [...] Pythagorus was one of the first teachers to establish a community wherein all the members were of mutual assistance to one another in the common attainment of the higher sciences” (p. xvi).
- 408 “To reach the truth it is necessary to awaken in oneself if possible the intellectual faculty, not to strive to ‘explain’ realities one does not ‘see’ with the reason; now most philosophies start from a sort of axiomatic blindness, whence their hypotheses, calculations, conclusions—all of which are more or less unknown in pure metaphysics, the dialectic of which is founded first of all on analogy and symbolism. In responding to the need for logical satisfaction that wisdom normally addresses, philosophy does not limit itself to ‘exposition’ but seeks to ‘explicate’ things in a quasi-absolute fashion; [it] is linked to a craving for explanation that is disproportionate, artificial, and ‘profane’, and it regards its own extrinsic explanations as essential factors of truth” (p. 3).
- 409 These *states* can be made permanent *stages* with *inner work* such as yoga, meditation, Qigong, and so on. Peaks, or states, can arise throughout our life accidentally or induced with drugs, for example, but will subsequently revert to a previous stage. Also, peak experiences are often *detri*-mental as *states* are not stabilized into *stages* (Wilber, 2000a).
- 410 Recall what Davis (2004) stated as regards transformative potential over transmission of knowledge; f.f. subsection *Curriculum revisited*.
- 411 Esoteric teaching is based on symbols—the universal language—which “is susceptible of multiple interpretations which, far from contradicting each other, are on the contrary complementary and equally true, although proceeding from different points of view” (Guénon, 1946/2004a, p. 200).
- 412 Guénon (1946/2004a) added: “It is obvious however that it is not always necessary for the communication so established to be conscious in order to be real, for it is most often effected by means of certain subtle modalities of the individual, into which most men today can no longer transfer their center of consciousness” (p. 104).
- 413 Concerning modern astronomy, “corporeal extensions is the only one known to astronomers, and even then they can only study a certain portion of it by their methods of observation” (Guénon, 1976/2004, p. 100).
- 414 “Furthermore, there can obviously be only one Infinite, for two supposedly distinct infinities would limit and therefore inevitably exclude one another” (Guénon, 1946/2004b, p. 8). Such ‘conventional’ notions include *infinitely small* and *infinitely large* or the set of whole numbers $\{\mathbb{Z}\}$ and even numbers $\{b \in \mathbb{Z} : b=2a, \forall a \in \mathbb{Z}\}$.
- 415 For any number n there will always be a number larger, namely $n+1$. Thus, there exists no quantitative infinite.
- 416 There is a debate concerning the set \mathbb{N} whether it should be represented by the set of *whole* numbers : $\{1, 2, 3, 4, \dots\}$ or the set of *non-negative* numbers : $\{0, 1, 2, 3, \dots\}$. Certainly such “mental occupations” would cease with some metaphysics discernment!
- 417 For Guénon (1946/2004b), “passage from zero to the unit cannot be made in the same way as passage from the unit to other numbers, or from any given number to the next, and to suppose the passage from zero to the unit possible is to have already implicitly posited the unit. ... This will appear completely obvious if, in conformity with the general law of formation for the sequence of numbers, one represents this passage by the formula $0 + 1 = 1$ ” (p. 90).
- 418 Technically I still hold this even today as a subset of Model III. But most of the worldview occupies Model I and is in desperate need of Model II!
- 419 The natural forces are at a higher order than mechanical forces which concern classical mechanics.
- 420 Or “compassionate action” (*upāya*) or in Chinese, 方便, which literally means “expedient means” or “pedagogy;” usually joined with *kaushalya* (“cleverness”) so that *upaya-kaushalya* means “skill in action.” Thus it holds pragmatic value to fit a situation in order to gain Enlightenment (indirectly), even though it may not be directly toward Truth directly. Thus, “ethics of compassion has nothing to do with satisfying some pleasure principle. From the standpoint of mindfulness/awareness, it is fundamentally impossible to satisfy desires that are born with the grasping mind. A sense of unconditional well-being [equilibrium] arises only through letting go of the grasping mind” (Varela et al., 1993, p. 251).
- 421 To Guénon (1946/2004b), “the mathematical notion of the limit implies by its very definition a character of stability and equilibrium, which applies to permanent and definite things, and which obviously cannot be realized by quantities insofar as one considers them in the lower of the two modalities [as a variable]” (p. 126).
- 422 I would imagine the concept of *kala* is closely linked with the Scholastic *principium individuationis*.
- 423 The bindu is both the means of expression of consciousness and the means of its limitations where *kala* “causes the potential inherent in the underlying consciousness to accumulate at a point called the bindu. It is

- from this point or seed that an object, animal, human being or whatever, can evolve, manifest or grow. Each and every object, big or small, has a bindu as its base. This bindu is hiranyagarbha - the golden egg or womb of creation. It is through the bindu that the immanent and the transcendental merge together. Bindu contains a blueprint of all the characteristics of the object to be evolved. That which previously had no shape [formless] assumes shape [form] through the bindu. The nature of the evolved object is fixed by the blueprint of the bindu” (Saraswati, 2009a, p. 713).
- 424 “Materialism is apparently unable to answer key questions about the nature of being human and has little prospect of ever answering them intelligibly. It has also convinced millions of people that they should not seek to develop their spiritual nature because they have none. Some think that the solution is to continue to uphold materialism a bit more raucously than before. Currently, key materialist spokespersons have launched a heavily publicized and somewhat puzzling “anti-God” crusade. Antitheistic works [include] *Breaking the Spell: Religion as a Natural Phenomenon* (Daniel Dennett), *The God Delusion* (Richard Dawkins), *God: The Failed Hypothesis—How Science Shows that God Does Not Exist* (Victor J. Stenger), *God Is Not Great* (Christopher Hitchens), and *Letters to a Christian Nation* (Sam Harris). ... The remarkable thing is that there isn’t a single new idea in anything they have to say. Eighteenth-century philosophers said it all long ago, to as much or little purpose” (Beauregard & O’Leary, 2008, p. xv).
- 425 As Schuon (1991) expressed, “we do not ask physicists to be content with an anthropomorphic and naïve creationism; but at least it would be logical on their part—since they aim at a total and flawless science—to try to understand the traditional onto-cosmological doctrines, especially the Hindu doctrine of the ‘envelopes (*kosha*) of the Self (*Ātmā*)’: a doctrine that, precisely, presents the Universe as a system of circles proceeding from the Center-Principle to that extreme limit which for us is matter. For human science does not derive solely from the need to know and to register; more profoundly its origin is the thirst for the essential; now the sense of essentiality attracts us toward shores other than those of the limited plane of physical phenomena alone” (p. 20)
- 426 Even at the higher levels of academia, in particular modern psychology, there “seems to be [a] common pre/trans confusion between the process of involution itself and specific events in evolution. Involution, or the superabundant Efflux of the One into the Many, is simply confused with biological birth. The ‘universal matrix’ (the One) thus becomes the actual womb, and the biological birth process becomes the separation of the individual (and the Many) from the One, which produces the ‘dualistic world,’ which is then somehow vaguely reunited with the One after the biological birth trauma is ‘resolved’ by the Mother embracing the infant (which becomes the ‘nondualistic’ state)” (Wilber, 2000b, p. 785).
- 427 Are we mindless accidents, who, through increasing complexity of self-organizing, evolved into beings with mind, seemingly emerging from matter? Or, as Nobel Laureate, John Eccles (1989), neurologist, would state: “I maintain that the human mystery is incredibly demeaned by reductionism, with its claim in promissory materialism to account eventually for all of the spiritual world in terms of patterns of neural activity. This belief must be classed as a superstition. We are spiritual beings with souls in a spiritual world, as well as material beings with bodies and brains existing in a material world” (p. 241).
- 428 On the antiquity of the zodiac: “To contend that it originated but a mere few thousand years before the Christian Era is a colossal mistake on the part of those who have sought to compile data, concerning its origin. *The zodiac necessarily must be ancient enough to go backward to that period when its signs and symbols coincided exactly with the positions of the constellations whose various creatures in their natural functions exemplified the outstanding features of the sun’s activity during each of the twelve months.* One author, after many years of deep study on the subject, believed man’s [*sic*] concept of the zodiac to be at least five million years old. In all probability it is one of the many things for which the modern world is indebted to the Atlantean or the Lemurian civilizations. About ten thousand years before the Christian Era there was a period of many ages when knowledge of every kind was suppressed, tablets destroyed, monuments torn down, and every vestige of available material concerning previous civilizations completely obliterated. *Only a few copper knives, some arrowheads, and crude carvings on the walls of caves bear mute witness of those civilizations which preceded this age of destruction.* Here and there a few gigantic structures have remained which, like the strange monoliths on Easter Island, are evidence of lost arts and sciences and lost races. *The human race is exceedingly old.* Modern science counts its age *in tens of thousands of years; occultism, in tens of millions.* There is an old saying that “Mother Earth has shaken many civilizations from her back,” and it is not beyond reason that the principles of astrology and astronomy were evolved millions of years before the first white man appeared [emphasis added]. (Hall, 2000a, p. 115).
- 429 In some rare instances, such as footprints, an anatomically modern human skeleton, and human tools, the date is pushed farther back to *hundreds* of millions of years into our past (Cremo & Thompson, 1996). Yikes! It was a subject they themselves elaborated little upon.
- 430 Cremo and Thompson “identify two main bodies of evidence. The first is a body of controversial evidence

(A), which shows the existence of anatomically modern humans in the uncomfortably distance past. The second is a body of evidence (B), which can be interpreted as supporting the currently dominant views that anatomically modern humans evolved fairly recently. [If] standards are applied equally to A and B, then we must accept both A and B or reject both A and B. If we accept both A and B, then we have evidence placing anatomically modern humans millions of years ago, coexisting with more apelike homonids. [Historically,] a significant number of professional scientists once accepted the evidence in category A. But [more] influential [scientists,] who applied standards of evidence more strictly to A than to B, later caused A to be rejected [and B] preserved. This differential application of standards for the acceptance and rejection of evidence *constitutes a knowledge filter that obscures the real picture of human origins and antiquity* [emphasis added]” (1996, p. xxv)

- ⁴³¹ As defined by wiktionary, panatheism is “the belief in ‘all atheism’ which holds the position that all people are atheists to at least one or more god models” (retrieved from <https://en.wiktionary.org/wiki/panatheism>, n.d.). One of those ‘incontestable logic’ errors.
- ⁴³² For some added context, Gregory Bateson (1904 – 1980), the great deep ecologist and philosopher of nature and mind (and the nature of mind) was named after the Austrian monk Gregor Mendel (1822 – 1884) who discovered the *units of heredity* found in peas. Genetics, the study of these units of heredity or in modern language *genes*, was coined coined the phrase by William Bateson (1861 – 1926), the father of Gregory.
- ⁴³³ Ouspensky (1946/2001) who questioned his mentor Gurgjieff, asked: “‘For a man of Western culture,’ I said, ‘it is of course difficult to believe and to accept the idea that an ignorant fakir, a naive monk, or a yogi who has retired from life may be on the way to evolution while an educated European, armed with ‘exact knowledge’ and all the latest methods of investigation, has no chance whatever and is moving in a circle from which there is no escape.’ ‘Yes, that is because people believe in progress and culture,’ said G. ‘There is no progress whatever. Everything is just the same as it was thousands, and tens of thousands, of years ago. The outward form changes. The essence does not change. Man remains just the same’. ‘Civilized’ and ‘cultured’ people live with exactly the same interests as the most ignorant savages. Modern civilization is based on violence and slavery and fine words. But all these fine words about ‘progress’ and ‘civilization’ are merely words.” (p. 51). Later Gurgjieff responded, “‘What do you expect?’ said G. ‘People are machines. Machines have to be blind and unconscious, they cannot be otherwise, and all their actions have to correspond to their nature. Everything happens. No one does ‘anything’. ‘Progress’ and ‘civilization,’ in the real meaning of these words, can appear only as the result of conscious efforts. They cannot appear as the result of unconscious mechanical actions. And what conscious effort can there be in machines? And if one machine is unconscious, then a hundred machines are unconscious, and so are a thousand machines, or a hundred thousand, or a million. And the unconscious activity of a million machines must necessarily result in destruction and extermination. It is precisely in unconscious involuntary manifestations that all evil lies” (p. 52).
- ⁴³⁴ Gurgjieff continued: “There is, and there can be, no other kind of evolution whatever. ... We have before us man at the present moment of his development. Nature has made him such as he is, and, in large masses, so far as we can see, such he will remain. ... Humanity neither progresses nor evolves. What seems to us to be progress or evolution is a partial modification which can be immediately counterbalanced by a corresponding modification in an opposite direction. ... *Only thought as theoretical and as far removed from fact as modern European thought could have conceived the evolution of man to be possible apart from surrounding nature, or have regarded the evolution of man as a gradual conquest of nature. This is quite impossible* [emphasis added]. In living, in dying, in evolving, in degenerating, man equally serves the purposes of nature—or, rather, nature makes equal use, though perhaps for different purposes, of the products of both evolution and degeneration” (Ouspensky, 1946/2001, pp. 56-57).
- ⁴³⁵ Adaptation is not how a design of an organism optimally fit their environment as is well understood in public spheres; professionally adaptation refers “specifically to the process that is linked to reproduction and survival, that is, to *adapting*” (Varela et al., 1993, p. 186). The terminology *fitness* allows evolutionary biologists (read: Neo-Darwinists) to *quantify* such a trait found ubiquitous in nature. Thus, “the task of evolution consists in finding heritable strategies, set of interrelated genes that will be more or less capable of contributing to differential reproduction. When a gene changes so as to improve in this task, it improves its fitness” (p. 186). Thus fitness, originally, formulated a measure of *abundance*. Fitness taken as a measure of abundance provides severe conceptual difficulties and thus a better term is *persistence*; “here fitness measures the probability of reproductive permanence over time. What is optimized is not the amount of offspring but the probability of extinction. Clearly this approach is more sensitive to long-term effects, and so it is an improvement over the more narrow view of fitness as abundance” (p. 187). Neo-Darwinists, though acknowledging other factors inherent in evolution, “seek to account for observed phenomena mainly [blindly] on the basis of optimized fitness” (p. 186).
- ⁴³⁶ They continue: “in contrast, in a proscriptive context natural selection can be seen to operate, but in a

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- modified sense: selection discards what is not compatible with survival and reproduction. Organisms and the population offer variety; natural selection guarantees that only that what ensues satisfies the two basic constraints of survival and reproduction” (Varela et al., 1993, p. 195). Others include *satificing* and *bricolage* as opposed to optimizing [or maximising]; in other words, “the evolutionary problem is no longer how to force a precise trajectory by the requirements of optimal fitness; it is, rather, how to prune the multiplicity of viable trajectories that exist at any given point” (p. 196). The concept of bifurcation is integral here.
- 437 As Capra (2005b) noted, “because living systems are nonlinear and rooted in patterns of relationships, understanding the principles of ecology requires a new way of seeing the world and of thinking—in terms of *relationships, connectedness, and context*—that goes against the grain of traditional [modern] Western science *and education* [emphasis added]” (p. 20).
- 438 Even at the biological level, the “triumph of molecular biology resulted in the widespread *belief* that all biological functions can be explained in terms of molecular structures and mechanisms. Thus most biologists have become *fervent reductionists*, concerned with molecular details. Molecular biology, originally a small branch of the life sciences, has become *a pervasive and exclusive way of thinking* [monoculture of the mind] that has led to a severe distortion of biological research [emphasis added]” (Capra, 1997, p. 77). Likewise, the science of Monsanto (which requires scientists . . .) is reductionist.
- 439 *Communal fusion* where we lose our identity (heterarchical pathology), not *divine fusion* of Meister Eckhart in relation to a *confusion*. See footnote below.
- 440 “Thus, pathological heterarchy means not union but fusion; not integration but indissociation; not relating but dissolving. [...] Whereas pathological hierarchy is a type of ontological fascism (with the one dominating the many), pathological heterarchy is a type of ontological totalitarianism (with the many dominating the one)” (Wilber, 2000b, p. 32)
- 441 As Sepp Holzer stated in an interview (“Aquaculture - Synergy of Land and Water,” n.d.), “If I irrigate, I have to fertilize too, irrigation washes out the soil’s nutrients, the nitrogen evaporates, and all the other nutrients are washed into the ground water where I don’t want them. The plant is left without nutrients, then I have to feed nutrients again and then I have to irrigate again. That’s a vicious circle, and it costs a lot of money too. If I don’t irrigate, the soil protects itself naturally. That is, the plants use less water by folding their leaves a little. They look a little withered, but they open up again when there is dew and rain. When it rains, the soil is prepared. The humidity increases, the soil opens up soakingp the rain. That’s natural. . . . If I irrigate, I deceive it. It will open up, but then it will dry out even faster. Then I will have to take care of my plants, they will become dependent on me, addicted to me.”
- 442 Bringing together concepts of sustainability, morality, science, and education into an interconnected whole, Capra (2005b) wrote: “It is no exaggeration to say that the survival of humanity will depend on our ability in the coming decades to understand these principles of ecology *and to live accordingly*. Nature demonstrates that sustainable systems are possible. The best of modern science is teaching us to recognize the processes by which these systems maintain themselves. *It is up to us to learn to apply these principles and to create systems of education through which coming generations can learn the principles and learn to design societies that honor and complement them* [emphases added]” (p. 29).
- 443 One example is maintaining our circadian cycle so that darkness means it is time for rest. Today, we can mechanically stay in artificial light all day long!
- 444 These would be represented by the concentric circles in Figure 19.
- 445 For Grimes (1998), “a wisdom that apprehends beyond the categories by the exercise of intellectual intuition is impossible for Kant since it forms no part whatsoever of our faculty of knowledge” (p. 157). Kant defined intuition “as operative only in the empirical phenomenal realm, for “without sensibility we cannot have any intuition.” Thus there is no way in which there can be any participation in the One, or the divine, because such a notion cannot even be expressed in Kantian language” (p. 157). The Greek Parmenides, whom Plato revered, would consider Kant as ordained toward *nothingness* and *nihilism*.
- 446 Of course, when you begin to ‘experience’ anything in the *timeless*, it ceases to be experiential . . . which would require time.
- 447 Wilber (2000b) concluded: “Thus, the ‘death of metaphysics’ correctly means the death of using mental experiences to stand for spiritual experiences, and the real birth of genuine metaphysics means: discover those spiritual experiences directly (and communally shared in a sangha of intersubjective discourse of checks and balances, and thus thoroughly grounded in validity claims)” (p. 707).
- 448 Not to be confused with Comte’s positive philosophy or positivism. Positive psychology differs from psychology which has historically investigated the *negative* aspects of the human psyche and/or condition.
- 449 Buddhist contemplative Kamalaśīla (740 – 795) historically debated that “thorough purification of the mind requires training in three things: ethics [pursuit of virtue], attention [pursuit of mental balance], and contemplative insight [pursuit of wisdom]” (Wallace, 2006, p. 5).

- ⁴⁵⁰ Similarly, Western mindfulness as “approaching bare attention, being focused and attentive from moment to moment, and not reacting to whatever is arising—is not yet comprehensive, but it is a fundamental expression of [Eastern] mindfulness” (2011, pp. 57-58).
- ⁴⁵¹ As Wallace (2011) noted, “by developing profound samadhi, they silenced the mind so deeply as to transcend thought. When one abides in the formless realm, all thoughts, including the notion of time, have vanished. It seems like the samadhi will last forever because there is no sense of the passage of time. Some adepts mistakenly called this the state of liberation (Skt. moksha); the Buddha found that such states, if unsupported by wisdom, pass away over the course of time. His brilliant discovery was that samadhi as an end in itself is merely a delaying tactic” (p. 62).
- ⁴⁵² According to Saraswait (2009a), the root cause of tension “lies in the *mind*. The cause lies with conflicts and fears which are embedded in the subconscious mind and whose nature *we are not aware of* ... [T]here is only one method of eliminating these subconscious impressions (in Sanskrit they are called *samskaras*) which make life a miserable affair. [...] The method is to know the *mind* [and] come face to face with these subconscious impressions. [...] [A] vicious circle: one has so many mental tensions and stresses making it impossible to explore the mind in order to remove the deeper problems which are causing many of the disturbances that prevent one exploring the mind in the first place. [...] The result is that the limbic system is continually creating mental and emotional stress responses. We are unable to relax. Tension becomes a normal part of life. It is not the brain that is faulty; it is the narrow limitations of our mental program [emphases added]” (pp. 58-61).
- ⁴⁵³ Iamblichus (1881) concluded that “a temple [read: body], indeed, should be adorned with gifts, but the soul with *disciplines*. As the *lesser mysteries* are to be delivered before the greater, thus also *discipline must precede philosophy*. The fruits of the earth, indeed, are annually imparted, but the fruits of philosophy at every first of the year. As land is especially to be attended to by him who wishes to obtain from it the most excellent fruit, thus also the greatest attention should be paid to the soul, in order that it may produce fruit worthy of its nature [emphasis added]” (p. 200). Here *soul* is not synonymous with *mind* as it is for todays philosophies.
- ⁴⁵⁴ The etymological root of his doctrine and name are “Egyptian and Phœnician alike. It is composed of the words אור (*aur*), light, and רפוא (*rophæ*), cure, salvation” (d’Olivet, 1917, p. 26). *Aur*, meaning fire, symbolizes sunlight on the physical plane and illumination (i.e. ‘higher’ knowledge) or spiritual light on the higher planes. A direct analogy to Plato’s Cave. It is interesting to note that Fabre d’Olivet (1767 - 1825), like Guénon, has only recently seen attention as the current Wikipedia article on the etymology of Orpheus stated omits his research: “Several etymologies for the name *Orpheus* have been proposed. A probable suggestion is that it is derived from a hypothetical PIE verb **orbhao-*, ‘to be deprived’, from PIE **orbh-*, ‘to put asunder, separate’. Cognates would include Greek *orphe*, ‘darkness’, and Greek *orphanos*, ‘fatherless, orphan’, from which comes English ‘orphan’ by way of Latin. *Orpheus* would therefore be semantically close to *goao*, ‘to lament, sing wildly, cast a spell’, uniting his seemingly disparate roles as disappointed lover, transgressive musician and mystery-priest into a single lexical whole. The word ‘orphyic’ is defined as mystic, fascinating and entrancing, and, probably, because of the oracle of Orpheus, ‘orphyic’ can also signify ‘oracular’. Fulgentius, a mythographer of the late 5th to early 6th century AD, gave the unlikely etymology meaning ‘best voice,’ ‘Oraia-phonos’” (retrieved from <http://en.wikipedia.org/wiki/Orpheus#Etymology>, October, 23, 2012).
- ⁴⁵⁵ Perennialists were generally against the empirical nature of the early theosophists due to Theosophy’s lack of genuine spiritual genealogy and primordial roots, its early pseudo-initiatory tendencies, and their often blatant attempts at syncretism where none existed. Although I consider Rudolf Steiner—who incidentally branched away from the Theosophical Society—somewhat removed from these allegations given his Rosicrucian roots.
- ⁴⁵⁶ “Every structure of consciousness is suspicious of all higher structures, structures lying within and beyond it, structures that are in fact its own inherent potential, but structures that require a frightening death and rebirth to unfold in each case” (Wilber, 2000b, p. 362).
- ⁴⁵⁷ To Guénon (1962/1995), initiation “re-establishes for this being the prerogatives that were natural and normal in the first ages of humanity [Golden Age]” (p. 28).
- ⁴⁵⁸ Symbolically *water* “reflects the solar light [and is] regarded as the symbol of the plastic principle (*Prakriti*), the image of ‘universal passivity’” (p. 49).
- ⁴⁵⁹ In the *çakra* symbolism, the *kundalini* or Hebraic *luz* (*kernel of immortality*) is localised at the base of the spine in a state of ‘sleep;’ the second localisation is found in the heart, designated as the “initial phase of its [*pinda*] ‘germination’, which is the ‘second birth’; at the frontal eye [third eye] is the perfection of the human state” (Guénon, 1946/2004a, p. 299) and symbolises the completion of the lesser mysteries and the integration of the human in the primordial state (*chen jen*).
- ⁴⁶⁰ The Gnostics also spoke of *Pleroma* (*Tao*) which “is not a fourth world, but is the universal Spirit itself ... neither manifested [Being] nor unmanifested [Non-Being], indefinable, inconceivable, and

- incomprehensible” (Guénon, 1962/1995, p. 14).
- ⁴⁶¹ This is no way implies the *hegemony* discussed by critical theorists who employ the term politically without knowledge of its metaphysical significance despite whether their own contingent view is contextually right or wrong: pattern three (spiritual degeneration).
- ⁴⁶² “It stems from the dictum of Hermes Trismegistus of ancient Egypt, who said: ‘What is below is an image of that which is above; And that which is above is an image of that which is below for the purposes of magic or miracle’” (Saraswati, 2009a, p. 406).
- ⁴⁶³ Student of His Holiness Swāmī Śaṅkarānanda Giri of the Mahāvātāra Bābājī lineage of Kriyā-yoga, a meditative science based on the breath or with greater precision, based upon the life-force *prāṇa*. Kriyā-yoga “practice is an eternal tradition beginning with human history. In the *Upaniṣads* it is described as the knowledge of Life-force, *prāṇavidyā*, and the worship of Life-force *prāṇopāsana*” (Giri, 2013, p. 4).
- ⁴⁶⁴ Axiomatically the whole is *more* than any of its parts since saying greater “restricts the axiom to its mathematical application only—for here we must obviously consider it as beyond the quantitative domain” (Guénon, 1952/2004, p. 144).
- ⁴⁶⁵ Osho deplures, stating “it is madness to feel that if we begin to think further than Krishna or Mahavira or Mohammed, it will be an insult to the latter. Because of this, the whole education has remained past-oriented, instead of being future-oriented. Any developmental, creative activity is always future-oriented. Our whole education is past-oriented. All our doctrines, ideas and ideals are taken from the past. The past is that which is dead and gone. . . . Not only do we impose the ideas, but we call a child ideal who proves himself a good follower of the old beliefs [including “what a good scientist you are!”]. Who is praising such a child? This is being done by the teacher, and that is how the leaders of society, religions and the state are exploiting the teacher. The teacher is made to believe that he [*sic*] is the disseminator of knowledge. He [*sic*] is not the disseminator of knowledge; he is the preserver and maintainer of the status quo, of the knowledge that has developed in the past, and he is an obstacle to the knowledge that can develop” (para. 11-13).
- ⁴⁶⁶ Osho stated in another lecture: “What is the meaning of rebellion? It means a revolution of *values* [emphasis added]” (para. 140).
- ⁴⁶⁷ An example from Osho: “When one child comes first in a class, the other child is told that he is lagging behind and this fellow has come first. You are teaching him to flatter, to compete and get ahead. You are teaching ego, telling them that one who has come first is higher, and one who is behind is lower. In books you tell them to be humble and loving, whereas your whole arrangement taught them to hate, to envy and come first” (para 22).
- ⁴⁶⁸ “Rama died many many years ago, and Christ also died many years ago. Why is there no other Christ born, although thousands of Christians are busy twenty-four hours a day trying to become a Christ?” (Osho, para. 56) and “just think of this world, where five billion people are like Rama. What will happen to this world? The whole world will commit suicide within fifteen minutes. Life will be so full of boredom, seeing Rama everywhere,” (para. 61).
- ⁴⁶⁹ For clarity: “Let experiences of the past add to man’s knowledge, but not bind him, because he has to go far beyond them. The past is the beginning of his journey, not the end. He has to proceed forward, from where the past generation has left him. . . . The golden era is always in the past; in the future there is a fall and degeneration. . . . *The purpose of education is to unburden the soul of man, because only weightless souls can rise to the peaks of godliness.* The burden of dead conditionings does not allow the seed of consciousness to sprout, and *the seed gets destroyed slowly, buried as it is in the ground.* It is not possible for the seed of one’s individuality to sprout without being unburdened from the past [emphasis added]. (Osho, paras. 143-146). Here we see the exact opposite in Westernised education which sees the past as the primitive age (in its derogatory usage) and the future as scientifically exact!
- ⁴⁷⁰ “Where there is no doubt, there is no thinking. Where there is no thinking, there is no intelligence. Where there is no intelligence, there is no truth. *Religions* have taught belief — neither doubt nor search. *Religion* will teach one to doubt, to think and to search. Only whatsoever is obtained by one’s own search is *self-transforming*, and is the truth [emphases added]” (Osho ,para. 352-353).
- ⁴⁷¹ Therefore, “Truth cannot be borrowed; it is the fruition of one’s own efforts. Education in religion is a preparation for such a search” (Osho, para. 354).