



laetus in praesens

Alternative view of segmented documents via Kairos

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Embodying a Hypercomplex of Unhygienic Nescience

Questionable connectivity enabling apprehension of matters otherwise

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Reimagining a gathering of the [Scientific and Medical Network](#) (2014), themed as *Envisioning and Embodying a New World*, in the light of a presentation on *Unsayings, Meta-discourse and Questionable Connectivity*

Introduction

The challenge addressed here is how the future might have sought to imagine a gathering of a "Scientific and Medical Network" in the turbulent period of 2014 -- a period of wars and rumours of wars, admirably characterized by the stanza of [W. B. Yeats](#) following the First World War (*The Second Coming*, 1919):

Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity

As might be expected the gathering was characterized by silence -- a quality of silence which honoured the existential dilemma and the paradoxical nature of action in a time of hubris. Everything could be said -- effectively saying nothing. Nothing could be said -- effectively saying everything.

The gathering recalled the Zen tale of the [Rainmaker](#) called to a remote village where drought was proving disastrous. He arrived, requested an isolated hut, and withdrew into it for a number of days. When he emerged, it rained. He explains that he did not bring the rain -- he had taken refuge to balance himself, naturally balancing the outside world through that process -- and it rained. From what insight does such understanding emerge? Is "rain" now to be equated with "inspiration"? Framed otherwise, what might be imagined of a gathering potentially to be understood as convened in the [Restaurant at the End of the Universe](#) (1980) -- as creatively presented by [Douglas Adams](#)?

Irrespective of the Adams framing, the question remains as to how the future, distant or otherwise, might choose to imagine the dynamics of a gathering at this crucial time. How is it that science fiction has tended to present possibilities as variants of meeting patterns of the present -- with their own remarkable resemblance to those of the distant past, despite the extraordinarily rapid innovation in other domains?

The approach taken follows from previous exercises in imaginative speculation (*Enacting Transformative Integral Thinking through Playful Elegance: a Symposium at the End of the Universe?* 2010; *Gardening Sustainable Psycommunities: recognizing the psycho-social integrities of the future*, 1995; *Aesthetics of Governance in the Year 2490*, 1990).

The argument focuses on the unfruitfulness of global discourse in response to current crises -- as exemplified by the political and religious **doublespeak** enabled by science (*Enabling Suffering through Doublespeak and Doublethink*, 2013). This leads to consideration of clues about how to talk about what cannot be effectively articulated -- and which is therefore highly susceptible to problematic misinterpretation and misunderstanding. How then to envisage the nature of an appropriate container for discourse which renders any conventional container non-viable and unsustainable?

Interweaving styles and themes

Styles of meeting at this time are readily recognized -- authoritarian, charismatic, participative, informative, inspirational, eliciting movement and various other forms of aesthetic expression. These correspond to a considerable degree to participant characteristics. Gatherings therefore effectively "filter in" potential participants according to such preferences -- with others being effectively "designed out" -- irrespective of claims to universality and inclusiveness.

The point can be made otherwise with reference to archetypal tales regarding any "Last Supper" or Knights of the Roundtable. Missing from such tales, as discussed separately, are the distinguishing characteristics of the "knights", and consequently the pattern of discourse between them from their contrasting perspectives -- however consonant or dissonant, concordant or discordant, in eliciting a more fundamental harmony (*Implication of the 12 Knights in any Strategic Round Table*, 2014)..

The gathering in 2014 was notable for the number of contrasting astrological perspectives presented, implying understanding of the dynamics "around the table" -- of which the zodiac and horoscope are potentially indicative. The challenge was to shift from explanation of preferences and tendencies to enabling fruitful dynamics in the light of embodied insight. How to engage fruitfully with discourse of contrasting style? How to learn from the process of doing so? How to recognize the emergence of patterns of higher order as a consequence -- meta-patterns?

Given the necessary presence of a complex of styles -- a requisite variety in cybernetic terms -- it was the underlying quality of silence which best characterized their integration. It was from this that communications emerged to play off against each other, much as in any musical improvisation. The gathering could be understood as a thoughtful dance of styles.

How might this dynamic have been perceived by an observer operating within a conventional mindset? It of course offered echoes of a Quaker-style meeting -- as of other intentional gatherings meditating on the stark realities of the present and the time to come. It could easily be perceived as characterized by austerity and parsimony with communications of minimalist quality. It might have been compared to a **henge** -- a configuration of those who had withdrawn into the stones (as with the legendary *Tuatha Dé Danann*). Such a perception readily camouflaged the enlivening humour which effectively called any communication into question -- in the tradition of *Neti Neti* (not this, not that). Through other more aesthetic frameworks, the pattern of interactions could naturally be seen as a dance, an opera, or the elaboration of a multi-coloured painting.

Whether framed as humour or otherwise, the dynamics were a challenge to comfort zones in an effort to elicit a meta-pattern of higher dimensionality. The question was how that might best be understood. Characteristic of this quest was recognition that "others", whether present or absent, could not be fruitfully blamed, as is the common pattern. Their very otherness was best understood as a mirror through which it was necessary to step (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008). Eliciting the meta-pattern required interweaving of discussion themes (*Interweaving Thematic Threads and Learning Pathways: noonautics, magic carpets and wizzdomes*, 2010).

Phase diagram of degrees of argument connectivity

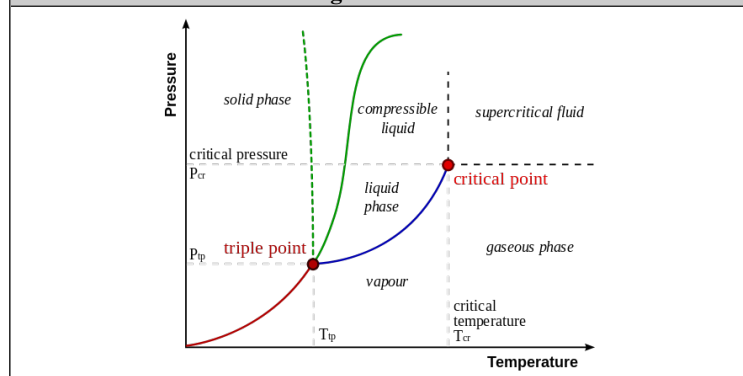
Chains of argument? Conventional gatherings have long focused on use of logical modes privileging a chain of argument -- deprecating **non-sequiturs**. Such modes are increasingly challenged by the contradictory perspectives cultivated in other domains -- typically "elsewhere". More generally this could be caricatured as people variously pointing and enjoining: come this way, follow us, go that way, don't follow them, etc.

Consensus: This pattern is notably only too evident with respect to controversial issues (climate change, etc). The very possibility of consensus regarding explanation in support of informed strategy has become questionable (*The Consensus Delusion: mysterious attractor undermining global civilization as currently imagined*, 2011). Agreement may itself preclude the dynamics of further intercourse. Anticipating some crisis to break the logjam, non-decision-making might be said to be the name of the game (*The Art of Non-Decision-Making -- and the manipulation of categories*, 1997). In any archetypal gathering of the wise, how to respond to those gathered who point variously to different "ways" -- and at each other as exemplifying "the problem"?

Phase diagram of styles of credible argumentation: One interesting way of reframing the situation is through re-interpretation of the pattern of the classical **phase diagram** whereby the relationships between the fundamental **states of matter** are indicated, as discussed separately (*Metaphorical geometry as a cognitive vehicle*, 2014).

This suggests that the degree of connectivity in argumentation might be fruitfully compared with that variously characteristic of such states (solid, liquid, gas, plasma) and the nature of the **bonding** which distinguishes them. Understanding of the relationship between the forms of connectivity could then benefit from the manner in which states of matter are displayed together in a phase diagram capable of highlighting transition boundaries and "critical points". Of some relevance, the phase diagram metaphor has been explored with respect to the distinction between data, information, knowledge and wisdom.

Simplified phase diagram interrelating states of matter of different degrees of bonding/connectivity -- suggestive of contrasting connectivity in argumentation



Connectivity and bonding: The diagram can be used to distinguish conditions characterized by "solid" argument, notably under any extreme "pressure" of circumstances. There is then a requirement that links between points made in any argument be "crystal clear" -- that points should be "aligned". This contrasts with the more "fluid" condition characteristic of many negotiations where matters and their connectivity are subject to reinterpretation. Metaphorical use is made of "liquidity". This flexible condition is more evident as debate becomes more "heated" and controversial. When they have been "frozen" solid, of particular concern is the possible need to "unfreeze" categories under certain circumstances -- -- as separately argued (*Framing the Global Future by Ignoring Alternatives: unfreezing categories as a vital necessity*, 2009; *Systemic Crises as Keys to Systemic Remedies a metaphorical Rosetta Stone for future strategy?* 2008).

With further "excitement", the characteristic connectivity is further reduced, as is evident in movements of opinion characteristic of any "wind of change" -- and its eddies. The ionization characteristic of high temperatures is consistent with the polarization in such debate.

Unforeseen forms of coherence and credibility: The diagram is valuable in indicating the possibilities of **transitions between phases** (modes of argument), the existence of possible correspondences to so-called **non-classical states** (glass, quasicrystals, magnetically ordered, quantum spin liquid, etc), **low-temperature states** (superfluids, etc), and **high-energy states** (see *Wikipedia List of states of matter*). These might have especially valuable properties and functions with respect to credibility and argumentation.

The diagram offers a means of discussing the conditions of "pressure" and "heat" (metaphorically characteristic of argument) under which credible bonding of particular kinds could form -- emphasizing the nature of credibility under those conditions. This usefully frames recognition of inspirational statements primarily characterized by the fiery "heat" of the presentation -- irrespective of whether the arguments are otherwise considered incredible.

The axes of the diagram might then be variously associated with

- "pressure axis", engendering: agreement, probability (certainty), resolution
- "temperature axis", engendering: disagreement, hope, improbability (uncertainty), irresolution

Positive vs. Negative: Using the axes for this purpose raises the valuable question as to how widespread metaphorical use of "positive" and "negative" are to be related to it -- given the manner in which they are associated with the other attributions. In physical terms, positive pressure is associated with higher pressure. In relation to temperature, negative is associated with lower temperature.

More complex is any association of hope/despair to the schematic. Greater hope can be readily associated with greater agreement (under pressure), which may well evoke a degree of despair at options forsaken. Similarly, greater hope may be associated with the inspiration of heated debate, which may in turn evoke a degree of despair at options ignored.

Idyllic weather? In the light of appreciation of the complexities of the weather, the phase diagram frames any (questionable) assumption regarding the nature of the ideal pattern of discourse with which ultimate sustainability might be associated. What would it be like if it all "worked", "came together" and "everyone agreed" -- as implied by some idyllic scenarios? The question is asked by Robert Adler in a current issue of *New Scientist* (*Happy Planet: we can make the world sustainable, but would you want to live there*, 5 July 2014).

At one extreme it could then be argued that the pattern would be that of an "air conditioned" environment. This would restrict discourse to particular areas of the phase diagram -- excluding conditions associated with excessive "pressure" or "temperature", then to be deprecated (as with "bad weather"). Some might well favour further restriction to the "solid" phases of argumentation -- in which connectivity was highest. What if there was "universal consensus"? Is this to be understood in terms of a "critical point" in the phase diagram where contrasting phases are strangely reconciled?

Ecosystem of argument phases: Clearly this extreme example makes the point that a more "natural" pattern of dynamically related phases is desirable. The looser connectivity of the "liquid" phases have their place. Valued creativity may be recognized as associated with "brainstorming" -- namely gaseous phases involving higher temperatures. This may include levels of disagreement -- namely the very low connectivity of the highest temperatures. Expressed otherwise, the challenge is then how to ensure a sustainable weather pattern, somehow incorporating dynamically the complete mix of phases.

It is necessarily impossible to argue conventionally for such a mix since it calls upon a variety of modes of argument between which there are complex phase transitions. It is in this sense that aesthetic appreciation of changing conditions of weather offers greater insight -- as with the understanding of people of the land, or sea, or poets. The possibility of relationships across phase boundaries can be

usefully discussed in terms of correspondences -- as variously appreciated and deprecated (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007).

Aesthetic singularity prior to Technological singularity?

A strong case is made for a future [technological singularity](#). This is understood as a hypothetical moment in time when artificial intelligence, human biological enhancement, or brain-computer interfaces will have progressed to the point of a greater-than-human intelligence, radically changing civilization, and perhaps human nature.

Such consideration has been framed otherwise in relation to a memetic singularity, a "semantic singularity" or possibly a "cognitive singularity" (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009). In an earlier articulation with respect to the *Emergence of a cognitive singularity* (2008) it was stated that:

The condition of such a singularity might be understood as intimately associated with a knowledge-information singularity at which the amount of knowledge-information generated -- of immediate relevance to viability -- exceeds the capacity of any (collective) human cognitive operation to process it. The dynamics of significance then constitute a form of standing wave of self-reflexivity. The points to a form of [metasystem transition](#), namely the emergence of a higher level of organization or control... Such a cognitive singularity is therefore distinct from that hypothesized as a future [technological singularity](#) of civilization, which might be understood as more probably related to that of societal collapse.

How does such a cognitive singularity relate to the collective quest for (strategic) wisdom at this time? Through what symbol could such a cognitive singularity be communicated for mnemonic purposes -- and how is this to be distinguished from many religious symbols? Why is the *Black Swan*... inadequate for this purpose? As an emblem of probable collapse and cognitive readiness, is it not an appropriate mnemonic for resilient response?

The technological singularity has however also been named as a cognitive singularity -- a characteristic of the semantic/memetic conflation that will increasingly occur, and irrespective of the effectiveness of any [semantic web](#). But such a **cognitive singularity may well occur prior to that anticipated from the technical perspective** -- although potentially accelerated by any trend towards it. Related possibilities have also been discussed (*Varieties of singularity*, 2009):

[Communication singularity](#)
[Subjective singularity](#)
[Metaphorical singularity](#)

[Cognitive singularity](#)
[Globality as singularity](#)
[Spiritual singularity](#)

[Metasystem transition](#)
[Symmetry group singularity](#)
[Singularity of planetary consciousness](#)

The concern here is however that **a form of aesthetic singularity may precede some variants of the singularity reviewed above**. This could be understood as an aesthetic fusion, partly signalled by fusion music, but readily conflated with confusion. It might be understood as a form of collective [synaesthesia](#) engendering cognitive fusion in its most dysfunctional sense. This may enable the emergence of a new human species, as speculatively explored (*Emergence of Homo undulans -- through a grokking dynamic?* 2013; *Authentic Grokking: emergence of Homo conjugens*, 2003).

Challenge to solidity: Associating the modes of discourse and argumentation through a phase diagram is indicative of their systemic relationship, as illustrated by the global role of water -- in taking various interrelated forms. This is readily evident in weather patterns, rendered comprehensible to a degree through global meteorological models. So framed the question of which pattern of argument is correct and appropriate then calls for another mode of comprehension.

The dramatic characteristic of the times is that **words no longer "work"** -- as conventionally used and as assumed -- despite the volume of words now flooding global communications. Similarly, carefully crafted organizational and project titles "don't work" -- as with declarations inviting universal consensus and support. The regular use of "appeals", vainly made by worthy leaders, are indicative in this respect -- as in response to current crises.

Reference is frequently made to the "hot air" associated with political processes. This offers a curious comparison with the current preoccupation with the challenge of "emissions" in relation to global warming, as separately explored (*Sins of Hot Air Emission, Omission, Commission and Promise: the political challenge of responding to global crises*, 2009).

Metaphorical climate change: Ironically, with the melting of glaciers and polar ice caps -- with the rising of sea levels and widespread flooding -- assumed solidity is only too evidently challenged. Similar conclusions could be recognized in the case of argumentation. The comparison could be extended by reference to the destructive effects of storms and hurricanes -- distinct from the gentler implication of "winds of change" (*Climate Change as a Metaphor of Social Change: systemic implications of emissions, ozone, sunlight, greenhouse and overheating*, 2008).

Reference to "flooding" is now characteristic of experience of the quantity of information to which people are exposed. Some arguments -- notably in response to scandals -- are easily recognized as taking the form of hurricanes, aside from what is aroused by the fiery discourse of religious and political leaders. Metaphorically, if the global knowledge-based civilization is to be "flooded", what might be an appropriate design for a future [Noah's Ark](#)?

Qualitative distinctions: Irrespective of these quantitative effects, the remarkable quality of the range of information available in documents, or on the web, poses a different kind of challenge. **What is who supposed to comprehend and to what degree** -- given the challenge of quantitative overload even within any specialized domain? The dilemma is compounded by the dramatic incapacity for meaningful interaction amongst the diversity of domains. How then is insight to be communicated between domains in a timely manner?

The dilemma is further exacerbated when insight is charged with traditional significance -- as so dramatically demonstrated at this time by the bloody sectarian conflict between Sunni and Shiite in the Middle East.

The Scientific and Medical Network is remarkable for the range of topics it addresses through its gatherings, and especially through its [quarterly journal](#). These are variously evident in the books on display at such gatherings. How to engage with such diversity? More generally, individuals are faced with the same dilemma at gatherings on larger scale, such as the annual [Hay Festival](#). The dilemma is evident in any comprehensive bookshop, to say nothing of a library or on the web.

Aesthetic appreciation? The implications of the phase diagram suggest another possibility -- given the aesthetic relationship long developed with weather and topography, most notably through poetry and song. Might "mountains of facts", and their implied solidity, be related otherwise to the "rivers" and "lakes" of more fluid modalities -- with their relation to any "sea of knowledge"?

The argument is that metaphors have already been employed to enable excessive quantities of topographical information to be comprehended otherwise -- effectively allowing for its qualitative diversity. Poets have long been inspired by topography and weather to offer means of engaging with the natural environment. The step to enabling engagement with knowledge through such patterns merits consideration.

Rather than aspire to traditional forms of comprehension of such riches, might aesthetics offer another way? The point is usefully illustrated by photographs of the observable universe -- its galaxies and stars -- as furnished by astronomy. These offer a sense of comprehending the beauty of the whole without any feverish need to grasp the parts in detail. Where are equivalent depictions of the noosphere to be found? In their evident absence, **can nature offer "surfaces" and templates with which knowledge can be fruitfully associated for mnemonic purposes?** Is this the case both with respect to depictions of the universe and to those of the planetary surface and its phenomena? (*Towards an Astrophysics of the Knowledge Universe: from astronautics to noonautics?* 2006; *Enabling Governance through the Dynamics of Nature: exemplified by cognitive implication of vortices and helicoidal flow*, 2010).

The challenge can be framed otherwise by considering the extent to which people already furnish their daily lives with aesthetic forms, whether from the visual media, music, sport, tales of celebrities, dramatic scandals, and the like. There is continuing debate as to whether this imaginal reality is more or less real than the reality framed by convention. The transition from *Realpolitik* to *Noopolitik* has been noted (David Ronfeldt and John Arquilla, *The promise of Noopolitik*, *First Monday*, August, 2007). Individuals and groups may well choose to give greater credence to imaginal reality, whether with respect to virtual online environments or through particular belief systems (*Cultivating Global Strategic Fantasies of Choice: learnings from Islamic Al-Qaida and the Republican Tea Party movement*, 2010).

Questionable cognitive closure: The issue can then be considered as a quest for cognitive closure of some form, namely of **forming an appropriate container for belief, confidence and credibility**.

A **theory of closure** has been articulated by Hilary Lawson (*Closure: A Story of Everything*, 2001) as a development of his work on reflexivity (*Reflexivity: The Post-Modern Predicament*, 1986). Of relevance to this argument, as discussed below, he subsequently frames the challenge aesthetically (*The Poetic Strategy*, 2008).

Paradox: Related issues have been addressed through the paradoxes any assumption of closure makes evident (Douglas Hofstadter, *I Am a Strange Loop*, 2007).

With respect to the insideness and outsideness of any closure, the paradoxical challenge of reflexivity has been further clarified in topological terms by Steven Rosen through the **Klein bottle** (*Dimensions of Apeiron: a topological phenomenology of space, time, and individuation*, 2004). Inappropriate cognitive closure can be usefully understood as a dubious form of "grasping" (*Beyond Harassment of Reality and Grasping Future Possibilities: learnings from sexual harassment as a metaphor*, 1996).

The sexual metaphor suggests that other more dynamic modalities may well be more fruitful (*Intercourse with Globality through Enacting a Klein bottle: cognitive implication in a polysensorial "lens"*, 2008). The weather is inherently dynamic, suggesting that patterns of argumentation could benefit from an analogical framing -- switching between modes according to circumstances, as suggested for example by Edward de Bono (*Six Thinking Hats*, 1985).

Poetic strategy? The approach above places emphasis on the challenge of the quantity and quality of information with which an individual is assumed to be able to engage -- or may aspire to engage -- however this process may be enabled by an array of quarrelling disciplines. The suggestion made is that an adequate degree of coherence may be sought through aesthetic appreciation of patterns of knowledge -- without necessitating the detailed understanding dictated by convention.

Although Hilary Lawson (*The Poetic Strategy*, 2008) seemingly ignores the constraints of information overload, he discusses how a range of "non-realist" authors (Nietzsche, Heidegger, Wittgenstein, Derrida, Rorty) have reached somewhat similar conclusions otherwise -- as contrasted with the perspective of "realists". In Lawson's terms:

Describing the world is a strangely perplexing process. It feels as if it should be effortless, but the more closely we seek to say how things are the more we uncover our failure to do so... Now there are, of course, those who suppose that the task of describing the world is in some way solvable, who think we can have access to..."the really real". It is a view adopted by many scientists and widely held in our culture and embedded in the notion of progress and the increasing knowledge of humankind. In the philosophical world it is characterised as realism. Realist philosophers, and those who endorse the project to correctly describe an independent reality, have tended to regard poetry as a romantic flourish, a flowery plaything, while the true work of language takes place in the realm of the literal...

Imagination: Lawson's reference to the view that, through imagination, "poetry is the fire of life" has been more recently echoed by

Douglas Hofstadter and Emmanuel Sander (*Surfaces and Essences: analogy as the fuel and fire of thinking*, 2013) -- as a further development of Hofstadter's earlier work (*Fluid Concepts and Creative Analogies*, 1995). As indicated by Lawson:

Non-realism is not about the assertion of a different set of existent things separate from the material which is prior or more real. Instead it is a challenge to the possibility of saying how things are, a challenge to our ability to speak of the really real... non-realism is seemingly at once embedded in a mire. If it is not possible to say how the world really is, if it is not possible to connect language to the world, how is the non-realist to find a means to express any view at all? ... The denial of our capacity to describe the really real would appear also to involve the denial of that denial itself. Such is the non-realist predicament.

It is for this reason that the non-realist is led towards poetry. If we are not capable of describing the world, such a claim cannot be made literally without it being at once self-denying. For, if the statement *we are not capable of describing the world* is itself taken as a description of the world - which at first sight it appears to be -- it is not possible to provide the statement with meaning since it denies itself.... And it is here that a poetic stance seemingly allows the non-realist philosopher a space from which to be able to speak. A means of talking that does not involve a commitment to the real. Hence Wittgenstein's remark: "I think I summed up my attitude to philosophy when I said: *Philosophy ought really to be written only as poetic composition*. Or Heidegger's: *Poetically, man dwells on this earth....*

Lawson notes that T. S. Eliot takes up a radical non-realist stance by providing a critique, not of material reality, but of the very possibility of "things":

The fact that we can only think in terms of things does not compel us to the conclusion that reality consists of things. We have found from the first that the thing is thoroughly relative, that it exists only in a context of experience, of experience with which it is continuous.

Lawson sees this not as an abandonment of the rational but as its extension. As noted by Gregory Bateson, in explaining why "we are our own metaphor" to a conference on the effects of conscious purpose on human adaptation:

One reason why poetry is important for finding out about the world is because in poetry a set of relationships get mapped onto a level of diversity in us that we don't ordinarily have access to. We bring it out in poetry. We can give to each other in poetry the access to a set of relationships in the other person and in the world that we're not usually conscious of in ourselves. So we need poetry as knowledge about the world and about ourselves, because of this mapping from complexity to complexity. (Mary Catherine Bateson, *Our Own Metaphor*, 1972, pp. 288-289)

Bateson is thus pointing to the advantages of poetry in providing access to a level of complexity in people of which they are not normally aware.

Beyond the binary trap: It is unfortunate that Lawson's argument is framed in the binary terms by which conventional discourse is so handicapped -- with all the strategic implications of: *you're either with us, or against us* (*Us and Them: Relating to Challenging Others*, 2009). So framed the argument for "non-realism" does not embody the otherness of "realists", as may be otherwise explored (*Reframing the Dynamics of Engaging with Otherness*, 2011).

This is not however to say that poetry lacks relevance to the strategic challenges of the times, as separately argued (*Poetic Engagement with Afghanistan, Caucasus and Iran an unexplored strategic opportunity?* 2009; *Poetry-making and Policy-making: arranging a Marriage between Beauty and the Beast*, 1993).

Lawson does indeed consider the binary relationship between openness and closedness. This is however the focus of a particularly useful discussion by Rosen with respect to the Klein bottle (as noted above).

More intriguing is the possibility of embodying binary perspectives in the light of some kind of "wave theory of being" (*Being Neither a-Waving Nor a-Parting: cognitive implications of wave-particle duality in the light of science and spirituality*, 2013; *Being a Waveform of Potential as an Experiential Choice: emergent dynamic qualities of identity and integrity*, 2013). There is then the possibility that the otherness of an alternative worldview may be encountered otherwise (*Encountering Otherness as a Waveform: in the light of a wave theory of being*, 2013).

Unsayings and ignorance

Mystery of phase shifting: Any degree of connectivity within the above argument is necessarily and paradoxically called into question by the argument itself. This situation challenges the capacity to make explanatory assertions about the condition, or to formulate strategic declarations as to how to transcend it. A degree of coherence is however offered by the dynamic between the phases, as stressed in practice by recommendations regarding use of de Bono's "hats".

Missing however is any sense of how and when to shift phase, as highlighted earlier by reference to the dynamics between the archetypal "knights" of any roundtable. How might they "agree" on when to change phase? There may indeed be ways of framing this dynamic as the practice of an aesthetic art, but this would also be subject to challenge in the light of other aesthetic principles. The possibility may also be explored in terms of "shapeshifting" (*En-minding the Extended Body: enactive engagement in conceptual shapeshifting and deep ecology*, 2003; *Secret sharing, Shapeshifting and Embodiment: reintegration of a remaindered world*, 2011). It relates to understandings of morphogenesis.

A specific example of the challenge is the determination of how to shift between disciplinary perspectives in responding to a situation understood to require interdisciplinarity -- or even transdisciplinarity.

Unsayings and Not-saying: One approach, itself questionable, is to explore the process of "unsaying". This is known to theology as [apophysis](#), whereby only statements of what God is **not** are considered meaningful (Michael Sells, *Mystical Languages of Unsaying*, 1994).

For example, the classical mystical text, *The Cloud of Unknowing*, argues that the only way to truly "know" God is to abandon all preconceived notions and beliefs or "knowledge" about God and be courageous enough to surrender the mind and ego to the realm of "unknowingness," at which point, one begins to glimpse the true nature of God. The approach can be more widely applied to any question of identity, as discussed separately (*Being What You Want: problematic kataphatic identity vs. potential of apophatic identity?* 2008).

The process is indicated otherwise in Lawson's own descriptive comments with regard to Eliot's *Four Quartets* (1943):

Of course I also risk appearing to say straight-forwardly what Eliot is so careful to avoid saying directly, or at all. My description should be taken therefore not as a description but as a temporary way of holding the Quartets which may help to explain my judgment as to their success. (2008)

In the form of "not-saying", ironically it could be said that -- "saying no" -- is in fact a primary modality of governance, notably as experienced by the young. Not-saying could then be seen as failure of government capacity to reframe situations. It is then obliged to have to recourse to "saying no" to initiatives of which it has no adequate comprehension.

Scientific assertion: The process of unsaying is in curious contrast to that of science. The latter is characterized by assertive declarations regarding the nature of reality -- possibly formulated as hypotheses (or with the typically unwritten assumption that the assertion is tentative). In practice such assertions tend to be definitive in their effort to deprecate and set aside alternative explanations -- even though such assertions may be qualified as provisional if challenged (by other scientists), especially if subsequently proven (by science) to be less than adequate.

Discourse of this kind can be caricatured as unself-critical "[gung-ho](#)" science -- usefully to be compared with "gung-ho" religion and "gung-ho" governance.

There is consequently a curious process of "undignified" competition between the advocates of contrasting explanations -- a feature of the scientific method reminiscent of "survival of the fittest" and well exemplified by the World Football Cup process. This results in the existence of conceptual models, abandoned (like shells), "on the bank and shoal of time".

Answers versus Questions: Answers are preferred to questions by science -- and it is by providing answers that scientists are primarily recognized and rewarded. However the process is also characterized by carefully framed efforts to avoid what its methods have proven unable to handle (*Knowledge Processes Neglected by Science: insights from the crisis of science and belief*, 2012).

Science engages in a curious dance with what it claims to "know", in contrast to its motivation to engage with what is "not known" as part of the process of "advancing human knowledge" in which it claims pre-eminence. The process tends to be distorted by feverish efforts to "discover" and "grasp" which merit challenge in terms of the above-mentioned sexual metaphor of harassment. Should all mysteries be solved -- all questions answered -- incidentally depriving the future of the ability to engage in scientific discovery?

Systemic boundaries: These can be understood in terms of their manipulation -- usefully compared with [gerrymandering](#) in politics (*Scientific Gerrymandering of Boundaries of Overpopulation Debate*, 2012). This plays out in the cultivation of [information silos](#), [groupthink](#) and derivative thinking (*Vigorous Application of Derivative Thinking to Derivative Problems*, 2013).

Science would appear to be completely unable to address destabilizing social processes like unchecked population growth or the flood of economic refugees -- or even the systemic factors inhibiting reasoned discourse on such controversial matters. These are carefully defined to be outside its exciting mandate to "advance the boundaries of human knowledge" for which ever more resources are required -- irrespective of the irrelevance to daily life (*Challenges More Difficult for Science than Going to Mars -- or exploring the origins of the Universe or of Life on Earth*, 2014). .

The dubious complicity of science in framing space exploration has been usefully reviewed by [Simon Ings](#) (*Space for Doubt*, *New Scientist*, 5 July 2014) with respect to recent studies (Matthew D. Tribbe, *No Requiem for the Space Age: the Apollo moon landings and American culture*, 2014; [David Meerman Scott](#), *Marketing the Moon: selling of the Apollo lunar program*, 2014).

Ings cites [Stanislaw Lem](#) (1961):

We have no need of other worlds. We need mirrors. We don't know what to do with other worlds. a single world, our own, suffices us; but we can't accept it for what it is.

The search for extraterrestrial life offers an example -- ironic given inability to engage adequately with terrestrial life and its problematic manifestations. This suggests that science -- like religion -- would be equally at a loss in framing processes for engaging with alien civilizations, as discussed separately (*Communicating with Aliens: the psychological dimension of dialogue*, 2000). This has been admirably illustrated by the movie *Avatar* (2009).

Remedial incapacity: Unfortunately for science, it has many answers but -- like religion before it -- has proven to be unable to address scientifically (and usefully) the processes whereby these answers are ignored in wider social practice, as discussed separately (*Remedial*

Capacity Indicators Versus Performance Indicators, 1981; *Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity*, 2009).

In this sense "gung-ho" science is an exercise in escapism through skilled focus on low-hanging fruit to the exclusion of more complex challenges of potentially greater relevance to human life.

Most striking at the time of writing is recognition that -- to the extent that science is being applied in ongoing conflicts in the Middle East -- this takes the form of enhancing military capacity. There is no detectable application of those skills to reframing such conflictual relationships, as may be variously suggested (*And When the Bombing Stops? Territorial conflict as a challenge to mathematicians*, 2000; *Middle East Peace Potential through Dynamics in Spherical Geometry*, 2012).

Given the scale of human deaths now considered acceptable in global governance, it may well be only when "science" and "religion" have together enabled and justified the death of a further 6 million that consideration will be given to "mathematical theology" (*Mathematical Theology: Future Science of Confidence in Belief*, 2011). The current pattern is curiously reminiscent of the proclivity of the *Aztec civilization* for periodic *large scale human sacrifice* as a key to sustainable governance.

Ignorance and the unsaid: Ironically, in arguing for "unsaying", more problematic is the extent to which much in human society can be characterized as "unsaid" (*Global Strategic Implications of the "Unsaid"*, 2003). To the extent that this may be characteristic of systemic inadequacies in the array of specialized sciences, it lies beyond the current capacity of science to address.

This is the domain of ignorance which science is as yet unable to consider on its own terms (*Nicholas Rescher, Ignorance: on the wider implications of deficient knowledge*, 2009). There is a particular irony to the manner in which engendering knowledge "locally" (in some specialized domain) effectively engenders ignorance "globally" (given the problems of dissemination and comprehension of new knowledge).

More generally, civilization itself could be considered as based on silence, and strangely sustained by it, as separately argued (*Civilization as a Global Configuration of Silences: recognizing silence of a higher order*, 2013).

Nescience and ignorance

Nescience: Given the seeming extent of ignorance, there is then a case for considering the potential role of "nescience" -- of "not knowing", of "not having an answer" -- especially an adequate answer to current challenges of humanity. Expressed otherwise, **who cares for the unanswered questions, or those that are not effectively asked?** (*Strategic Implications of 12 Unasked Questions in Response to Disaster*, 2013). Of particular concern is the tendency to offer the pretence of an answer as a means of disguising the lack of one. The pretence may take the form of major strategic initiatives -- reminiscent of the *Potemkin village* strategy.

Curiously, although "nescience" is itself rarely used, no use whatsoever is made of "nescientific" or the potential existence of "nescientists". The latter term would of course be readily applied by "scientists" to those who fail to subscribe to the methodology of science, as exemplified by the *Sokal Affair*. Especially unfortunate is the sense in which nescience may be construed as a lapse from conventional belief -- reminiscent of religious deprecation of *apostasy* and any required punishment of apostates. Given the plethora of incomprehensible legal provisions, equally unfortunate is the principle that *Ignorantia juris non excusat* ("ignorance of the law excuses no one") -- presumably even when the provisions are secret.

Missing however is a methodology to explore what "falls between the cracks" of application of the scientific method by any pattern of disciplines. In a period of frequent reference to "falling through" the *social safety net*, the question is **who attends to that which "falls through" the "cognitive safety net"?** What, in practice, gets ignored and with what mindset might attention be given to it?

Attentive ignorance? "University" has been associated, to all intents and purposes, with the cultivation and development of knowledge. What processes might be usefully characteristic of a University of Ignorance, as separately discussed (*University of Ignorance: engaging with nothing, the unknown, the incomprehensible, and the unsaid*, 2013)?

Clearly there is a form of paradox to be recognized, even a contradiction in terms. How to cultivate engagement with ignorance without falling into a variety of traps? One such is suggested by premature closure, namely reaching a conclusion which obviates further questioning. Another is cultivating a duality -- a binary trap of knowledge vs. ignorance -- when a degree of non-duality may be required.

It is curious to note that web searches now indicate an increasing interest in ignorance and/or nescience, despite the challenge they represent to conventional thinking -- or possibly because of it. Examples include: *Select Scholarly Ignorance Resources*; David Gray, *Wanted: Chief Ignorance Officer*, *Harvard Business Review*, November 2003.

Mindlessness? Clearly many clues may be sought from mental disciplines attentive to the challenge of *non-duality*. Of particular interest is how the relation between mindfulness and mindlessness is questionably framed (David M. Allen, *Mindfulness or Mindlessness? Psychology Today*, 17 February 2014; Ellen Langer, *Mindfulness and Mindlessness*, Second Journey). "Mindfulness" is readily promoted, but with different implications. "Mindlessness" is readily deprecated, but lends itself to more fundamental implications, as with the Zen focus on "empty mind", especially valued in martial art philosophy (Ezio Di Nucci, *Mindlessness*, 2014; Yanir Harel, *Zen Seeds, Empty Mind: Discover the mind before thinking*, 2013).

Especially intriguing is the possibility that there may be a collective analogue to mindfulness/mindlessness -- beyond the condition deprecated by *John Ralston Saul* (*The Unconscious Civilization*, 1995). Just as blackholes have explanatory value to astrophysics, non-financial "blackholes" may be of cognitive significance to global civilization (*Existential implications -- of a "hole" in conventional reality?* 2012). Just as astrophysics is free to indulge in speculation about *Boltzmann Brains* and intelligence in/of the universe, there may be a case for speculating on forms of indwelling intelligence consistent with the mindfulness/mindlessness complex (*Implication of Indwelling Intelligence in Global Confidence-building: sustaining the construction and dynamic of psychosocial reality through*

[questioning](#), 2012; *Sensing Epiterrestrial Intelligence (SETI): embedding of "extraterrestrials" in epistemic dynamics?* 2013).

Learning to expect the unexpected: A "university of ignorance" might then highlight degrees of "not knowing", especially in the sense of the self-reflexivity required in not knowing about "not knowing".

Rather than "education" in a discipline as conventionally understood, the concern might be with how to remain creatively ignorant and empowered to ask meaningful questions. A focus on "meta-education" might provide further insights, as separately discussed (*Higher Education & Meta-education? Transforming cognitive enabling processes increasingly unfit for purpose*, 2011). Aspects of this process are evident in the argument of Donald Michael regarding the "requirement to embrace error":

More bluntly, future-responsive societal learning makes it necessary for individuals and organizations to embrace error. It is the only way to ensure a shared self-consciousness about limited theory to the nature of social dynamics, about limited data for testing theory, and hence about our limited ability to control our situation well enough to be successful more often than not. (*On Learning to Plan and Planning to Learn*, 1973)

Those capable of "thinking on their feet" -- in response to the unexpected -- may offer further clues. Instances of the art of fruitful ignorance may well be currently evident amongst the least privileged without access to conventional education.

Strategic ignorance? The strategic relevance has been usefully highlighted by the controversial "poem" of Donald Rumsfeld as US Secretary of Defence, as separately discussed (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008). For Rumsfeld, with respect to reports that say that something has not happened:

... as we know, there are known knowns;
there are things that we know that we know.
We also know there are known unknowns;
that is to say we know there are some things we do not know.
But there are also unknown unknowns,
the ones we don't know we don't know.

Related issues of strategic surprise have been extensively argued by Nassim Nicholas Taleb (*The Black Swan: the impact of the highly improbable*, 2007; *Antifragile: things that gain from disorder*, 2012).

Negative capability: Rumsfeld's "poem" might be understood as framing the conventional preoccupations of universities in seeking to extend the imperium of the "known" -- effectively indulging in its "colonization" -- whilst failing to engage fruitfully with the domain of the "unknown".

The case for eliciting a nescientific perspective has been admirably made by the poet John Keats with respect to *Negative Capability*:

... it struck me what quality went to form a Man of Achievement, especially in Literature, and which Shakespeare possessed so enormously -- I mean Negative Capability, that is, when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason... (1817)

As noted by *Wikipedia*, the term describes the capacity of human beings to transcend and revise their contexts. It has been used by poets and philosophers to describe the ability of the individual to perceive, think, and operate beyond any presupposition of a predetermined capacity of the human being. It further captures the rejection of the constraints of any context, and the ability to experience phenomena free from epistemological bounds, as well as to assert one's own will and individuality upon their activity.

Nighthood? In failing to address effectively the processes which constrain the wider acceptance of its answers (as noted above -- other than deploring the phenomenon -- should science be recognized as lacking a form of "negative capability"?)

Given the enthusiasm for roundtables, with their archetypal implications, is negative capability a requisite of the "kighthood" of those assembled? Is it expected of those so gathered that they recognize both the possibility of their own ignorance and the challenge of premature closure -- as exemplified by groupthink? What art do they together practice in fruitfully "circling" a matter about which little may be effectively said (*Implication of the 12 Knights in any Strategic Round Table: each circulating globally in quest of sustainability and immortality*, 2014).

Naysign and "nart": living with incomprehension and uncertainty

Anticipation of nothing: Science -- as with religion before it -- claims to reduce incomprehension and uncertainty. It could however be argued that increasingly, at every level of society, these conditions are now ever more characteristic of the reality of daily life. People face uncertainty with regard to employment, health and security -- with many facing the strange prospect of a future characterized by "nothing" (*Emerging Significance of Nothing*, 2012).

Given its priorities, science offers little of practical value to address this problematic reality. Like religion, it calls for a form of belief on the part of its adherents. It could however be said to be highly complicit in exacerbating unthinkingly such conditions through further development of military and surveillance hardware, and questionable initiatives in relation to the environment (water management, genetically modified organisms, etc).

Responsibility for any disastrous consequences is denied. The continued existence of "scientific whaling" exemplifies the point -- especially the manner in which "science" disassociates itself from the process. This pattern has long been a characteristic of religion, as currently exemplified by the systemic child abuse by clergy (*Pope Francis Reassures the Faithful: only 2 percent of Catholic clergy are pedophiles*, *Agence France-Presse*, 13 July 2014; *Pope Francis Repeating Interview History*, *Liberty Voice*, 13 July 2014; *Pope Francis Calls Clergy Sex Abuse 'A Leprosy'*, *Says 2 Percent Of Priests Are Pedophiles*, *The Huffington Post*, 13 July 2014). What percentage of science is fraudulent?

What form might "comprehension" of the current global condition usefully take -- and how is science contributing to this? The question helps to engender questions regarding the potential role of nescience and nescientists -- capable of engaging fruitfully with incomprehension and ignorance. How indeed to live with such conditions and to recognize the challenge of those who have little choice in the matter, as discussed separately (*Living with Incomprehension and Uncertainty: re-cognizing the varieties of non-comprehension and misunderstanding*, 2012)?

De-signing? Various arguments of the previous sections were previously presented as *Science of "Unknowing": "Apophysis", or "Nescience"?* in the review of a book (*Happiness and Unhappiness through Naysign and Nescience: comprehending the essence of sustainability?* 2008). The book was the work of **Y. S. Rajan** (*In Pursuit of Happiness*, 2007), a keynote speaker on the theme *Change and Change Agents*, at a gathering of the **World Academy of Art and Science** (Hyderabad, 2008).

As discussed above, aesthetics offers valuable indications, particularly in the form of poetry. The question can be framed otherwise as the quest for valuable signs to comprehension of the global condition and how to live in it at this time -- in the pursuit of happiness. In contrast to what is conventionally understood by "science", Rajan appropriately sees "art" as a distinctly valuable way of knowing. Art may also be understood as intimately related to "design", especially where prominence is given to aesthetic rather than technical criteria.

In the case of the World Academy of Art and Science, this is of potential value -- given an earlier workshop under its auspices with the theme *Who is designing the 21st Century?*, as described elsewhere (*Designing the 21st Century through integration of the arts and sciences*, 1995). One of the contributions explored the importance of "de-signing" (*Definitional Boundary Games and De-signing the 21st Century*, 1995):

Designing can be understood as removing the significance of the underlying experience of nature. In this way architects and planners have eliminated the experience of nature.... In this way it may be understood as de-signifying. However design may also be understood as removing the architectural graffiti imposed by architects and planners on nature. Production of graffiti is a way for some to impose their tag or sign on any available surface. In this way de-signing may be understood as the removal of such defacement, namely of the artificial signs imposed upon nature rendering it invisible.

"Nart"? With respect to art, a case can then be made for an analogue to nescience (as described above). This would be a means of focusing attention on that which is (or may be) "not art" or "not design" in any conventional sense -- as argued in a section of the review of Rajan's contribution (*"Unsigned", "Nart", "Nelegance", "Nesign", or "Naysign"?* 2008). Rather than "nart" or "nesign", the proposal was for the use of **"naysign"** -- implying the absence of sign or trace. This was illustrated by the following:

A comparison has been made between French and Japanese cooking in the following terms. The most eminent French chef is known by what he does to the food. He is recognized by the tastes he adds to it in the form of sauces -- in which his hand is to be experienced at every turn. By contrast a Japanese chef is known by the impossibility of distinguishing his hand in the food that is offered. His work is to reduce the interface between the eater and the food to the strictest minimum -- allowing the flavours of the food to emerge of their accord. The question is whether the designers of the 21st century are to be of the first kind or of the second.

As with nescience, naysign highlights the sense in which the plethora of designs and signposts -- so enthusiastically promoted for comprehending and living in uncertainty -- are inherently questionable. Naysign also implies that the "art" of living in these times is essentially "artless" -- in a paradoxical sense as yet to be recognized. This implies the need for a new cognitive mode of engaging with reality in the moment -- for living otherwise, as separately explored (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011; *Paradoxes of Engaging with the Ultimate in any Guise: living life penultimately*, 2012).

Verbal game-playing engendering a global cognitive container?

In a period when there is an intense global focus on competition for the FIFA World Football Cup -- despite wars and rumours of wars -- the pattern of arguments above can be seen as a dubious combination of game-playing and word-play. **How indeed to engage with the paradox of using words which negate their own significance** -- specifically reminiscent of the Sanskrit adage *Neti Neti*? As stressed, **words as conventionally used no longer "work" to enable meaningful life**. Poetry may well constitute a vehicle for intimations and intuitions -- but is itself readily challenged, as with any aesthetic preference.

The dilemma is how to use words so as not to imply what cannot be indicated by words, namely how to use words to talk about what cannot be meaningfully talked about. To what extent is any essential incommunicability a matter of **Ludwig Wittgenstein's** concluding phrase: *Whereof one cannot speak, thereof one must be silent* (*Tractatus Logico-Philosophicus*, 1921)?

A process is required for handling problematic assumptions -- too readily made as a matter of convenience -- about the meaning of what is said and of saying what is meant. Crudely put, **a more creative response is required to the more sophisticated possibilities of dissimulation -- lying -- as ever more evident in the processes of governance**.

Science claims to use mathematics and hard evidence to circumvent the difficulty. By so doing, however, this undermines the comprehension of meaning by associating it with essentially meaningless rigid formalism, as discussed separately (*Dynamics of Symmetry Group Theorizing: comprehension of psycho-social implication*, 2008). There is a strong case for considering metaphors from non-western cultures, as argued by [Susantha Goonatilake](#) (*Toward a Global Science: mining civilizational knowledge*, 1999) and separately discussed (*Enhancing the Quality of Knowing through Integration of East-West metaphors*, 2000).

Western alchemy: It is from this perspective that there is a case for exploring any modality which can specifically and systematically embody the potential misunderstanding associated with paradox. One valuable modality, variously comprehensible through its use of metaphor, is [alchemy](#). The conventional controversy it engenders may even be helpful in demarcating its domain of significance in engaging with the experiential significance of a non-independent reality -- for which science has proven to be so ill-equipped. As noted by Lawson with respect to poetry:

Realist philosophers, and those who endorse the project to correctly describe an independent reality, have tended to regard poetry as a romantic flourish, a flowery plaything, while the true work of language takes place in the realm of the literal.

There is of course a western tradition of alchemy currently under careful review by the [Newton Project](#) -- despite long-standing deprecation by conventional science.

Eastern alchemy: A distinction is made in eastern traditions between "external alchemy" (*Waidan*) and "internal alchemy" (*Neidan*). The first corresponds to a greater degree to the "chemical" preoccupations of western alchemy in which an "internal" focus may only be implicit (Isabelle Robinet, *On the Meaning of the Terms Waidan and Neidan*, 1991). *Neidan* could be considered even more controversial and obscure -- and therefore potentially indicative of its value to the cognitively tricky engagement with experiential paradox in daily life.

The nature of the metaphorically-enhanced use of word-play in *Neidan* is admirably clarified in essays by Isabelle Robinet (*The World Upside Down: Essays on Taoist Internal Alchemy*, 2011), remarkably translated from the French by Fabrizio Pregadio:

Internal alchemy, or *Neidan*, is a technique of enlightenment whose earliest extant written records date from the eighth century. It appeals both to rationality, which gives order to the world, and to what transcends rationality: the unspeakable, the Totality. Its main tools are the trigrams of the *Yijing* (Book of Changes) and a number of key metaphors, some of which are alchemical in nature, whence the name, "internal alchemy"....

Robinet most notably indicates in one essay (*The Alchemical Language, or the Effort to Say the Contradictory*, 1993):

The principle consists in ordering the world by means of multiple and complex reference points built on the basis of these initial data and of a multi-layered structure. Here lies the rationality of alchemy, in the sense of providing order and intelligibility. However, being a didactic technique oriented toward mysticism, alchemy also involves the denial of its own system. This denial is achieved by several means: the reminder that silence is the foundation of the word; the continuous evocation of Unity, which merges and abolishes all reference points; the adoption of a fundamentally metaphoric language that must be surpassed; the recurrent disruptions in the continuity of discourse; the use of images that play at several levels, operating now in one direction, now in the opposite, levels that are related to one another until being unified; the ellipsis that handles two different entities as equivalent; the reciprocal encasing of all images, so that "the child generates its mother" and the contained is the container; the multiplicity of facets, times, and reference points superimposed above one another, which counteracts the fragmentation wrought by rational analysis.

The alchemists, therefore, use a highly structured language, but transgress it by introducing a negation of their own system, and by expressing, through a system of reciprocal encasing, a duality absorbed into Unity, a rationality traversed by irrationality. The language of alchemy is a language that attempts to say the contradictory.

It is appropriate to note a degree of recognition of systemic denial in the [Incompleteness Theorems](#) of Kurt Gödel. It is also appropriate to note how schools of thought engage in mutual denial. A useful review (*Neidan: the traditional meditative practice, Literati Tradition*) notes that:

Taoist inner alchemists make it very clear that their ideas are different from the notions of Chan/Zen Buddhists. According to Taoist inner alchemists, Chan/Zen Buddhists only dwell on *xing*, or the original nature in its pristine purity, which they wish to attain in an intuitive and immediate vision. They neglect *ming*, or fate, life, which represent the resistance of corporality and gravity within human beings. Only when *xing* and *ming* are combined, they join in the "non-action which is the action". According the Classics of Inner Alchemy, Robinet describes, without *ming*, *xing* will forever be stuck in inactive emptiness; without *xing*, *ming* will never attain perfect non-action. (Robinet, 323)

Cognitive mapping: As might be expected, the extensive elaboration by Robinet paradoxically constitutes a new instance of the challenge of both information overload and of incomprehensibility, as noted above. Although the metaphors and symbols imply a form of cognitive map, its nature remains necessarily elusive -- especially since any such map should be dynamic and interactive in order to correspond to the nature of what is mapped (at least to some degree).

Rather than exacerbating the problem, **there is a case for considering how Robinet's verbal articulation might itself engender an**


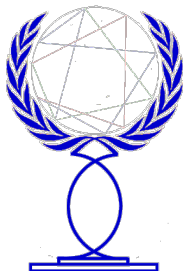

appropriate map through the pattern and quality of its connectivity. Text analysis and concept mapping software, whether available or emerging, could be expected to enable new possibilities of comprehension of such argumentation, visually rendered by such means (*Preliminary NetMap Studies of Databases on Questions, World Problems, Global Strategies, and Values*, 2006).

Exploiting a stage in the alchemical process -- self-reflexively -- **could the engendering of some such map be understood as the elaboration of a requisite cognitive container?** Rather than a **concept map** as conventionally arrayed in 2D, could it take a form -- through iteration -- indicative of its content to varying degrees? Can the dynamic pattern of an argument engender a container?

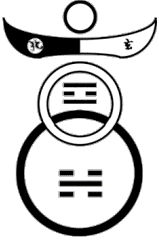
The emergence of the fractal organization of the **Mandelbrot set** can be considered in this light (*Psycho-social Significance of the Mandelbrot Set: a sustainable boundary between chaos and order*, 2005; *In Quest of a Dynamic Pattern of Transformations: sensing the strange attractor of an emerging Rosetta Stone*, 2012). In terms of consideration of any alchemical "vessel", visual renderings of that set are extremely suggestive.

Emergent strange attractors: The current worldwide preoccupation with the FIFA World Football Cup extends to digital encoding of each individual movement of the ball in order to detect passing patterns through **match analysis**. The case was separately made that this could be understood as enabling recognition of the emergence of an intangible fundamental attractor -- readily associated with reference to the "spirit of the game" (*Comprehension of Numbers Challenging Global Civilization: number games people play for survival*, 2014).

As an appropriate provocation that document suggested a fruitful comparison could be explored between the following images (*Imaginative depiction of the cognitive challenge*, 2014). The central image is an animation indicative of the emergence of a central attractor, framed by passing patterns. The argumentation regarding internal alchemy could be considered as potentially taking similar form -- effectively engendering a container for its processes.

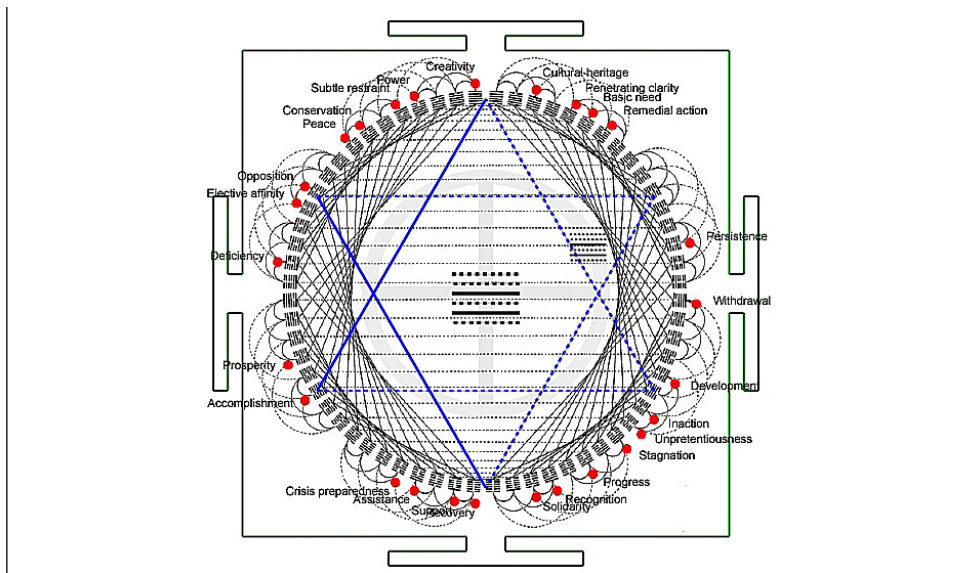
Complementary symbolic containers?		
Sacred cup	Animation of composite schematic?	FIFA World Cup
		

The point to be made is the need for extensive exploration of the mapping possibilities for the insights of internal alchemy -- much as there is continuing exploration of mappings of the planetary globe, in the light of consideration of the distortions introduced by 3D **geographical projections** into 2D, with their various advantages and disadvantages.

<i>Xuanpin</i> (Mysterious-Female)	
	<p>The <i>xuanpin</i> (Mysterious-Female), a Taoist symbol that represents the unity of Yin and Yang. The two trigrams are Fire (Yang, above) and Water (Yin, below), which respectively enclose True Yin and True Yang, represented by their inner lines.</p> <p>The Valley Spirit never dies It is named the Mysterious Female. And the doorway of the Mysterious Female Is the base from which Heaven and Earth sprang. It is there within us all the while; Draw upon it as you will; it never runs dry. (<i>Tao Te Ching</i>, chap. 6, tr. Waley)</p>

From such an experimental perspective, it is appropriate to contrast the classical symbol of internal alchemy (above) with a composite image framed by symbols of the *I Ching*.

Screen shot from a more complex animation
<p>Shown halfway to completion of cycle of 64 hexagrams. This version features: explicit labelling of completed hexagrams; the correspondence between the line-coding of the central hexagram and the star may be seen; a smaller version of the current central hexagram is visible in movement; towards its final position on the circle (on the right); - an emerging central symbol (a Medicine Wheel) is faintly visible</p> <p>(<i>Dynamic Exploration of Value Configurations: Interrelating traditional cultural symbols through animation</i>, 2008)</p>



Requisite cognitive inversion: higher orders of twistedness

In introducing the cognitive process associated with *Neidan*, Isabelle Robinet specifically notes, citing classical texts:

One facet of this system is the theme of *the world upside down*:

Look at the gate of death as the gate of life,
Do not take the gate of life to be the gate of death.
The one who knows the mechanism of death and sees the reversal
Begins to understand that the good is born within the evil.

The Sun in the West, the Moon in the East. Heaven is Earth, Earth is Heaven. This symbolizes the growth and union of Yin and Yang, the reversal [of the course] of the five agents.

"Reversal" (*diandao*) is one of the basic principles of internal alchemy. This principle takes many forms and is applied in different ways. To obtain the Golden Elixir -- the equivalent of the Philosopher's Stone -- one should go through several reversals. According to a sentence often quoted in the texts, *Those who go in the ordinary sense give birth to human beings; those who go backward find immortality.* (*The World Upside Down: Essays on Taoist Internal Alchemy*, 2011)

That choice of title bears comparison with that of Thomas Homer-Dixon (*The Upside of Down: catastrophe, creativity, and the renewal of civilization*, 2006) -- especially in the light of its focus on the *adaptive cycle*. Both merit examination in the light of the case made by Barbara Ehrenreich (*Bright-sided: How the Relentless Promotion of Positive Thinking Has Undermined America*, 2009; *Smile Or Die: How Positive Thinking Fooled America and the World*, 2009) -- an argument explored separately (*Being Positive Avoiding Negativity: management challenge of positive vs negative*, 2005). The questions raised also bear consideration with respect to simplistic understanding of "enlightenment" (*Enlightening Endarkenment: selected web resources on the challenge to comprehension*, 2005).

At the present time it is also of relevance to note the extent to which "democratic" countries are rationalizing the adoption of policies abhorred in "undemocratic" regimes of the past -- most evidently with respect to invasive surveillance, methods of torture, etc. This reversal can be recognized as a process of *enantiodromia* through which the superabundance of any force inevitably produces its opposite, as discussed separately (*Enantiodromia: cycling through the "cognitive twist"*, 2007).

Of particular interest is the reversal of "inside" and "outside", understood topologically as inversion or introversion (*World Introversion through Paracycling: global potential for living sustainably "outside-inside"*, 2013). This cognitive process is considered under the following headings:

- Incoherence of external reality
- Transformation of worldview from "inside-outside" to "outside-inside"
- Imagining a window of strategic opportunity for change
- Insightful confusion: outside-in, inversion, introversion?
- Alleviating the "weight" of external matters
- Alternation of worldview between "inside-outside" and "outside-inside"
- Paradoxical cycling between "inside-outside" and "outside-inside"
- Paracycling: towards a terminological and visual clarification
- Sphere eversion as guide to the cognitive twist of global introversion?
- Imagining transcendence appropriately challenging to comprehension
- Approaches to distinguishing requisite cognitive variety
- Paradoxically dynamic coherence of internalized "pantheons"
- Engaging with "peaceful" and "wrathful" deities
- Embodying the world as a strategic opportunity

Recognizing the downside of "up" through cyclic nominative inversion

The previous section highlights the particular challenge of unquestioning attachment to whatever is framed as "positive" or "up" -- and deprecation of what is "negative" or "down". This is especially relevant to the naming of initiatives for which terms are chosen on the basis of assumptions that they unambiguously capture and hold "positive" or "higher" values which should not be called into question. There is no consideration of the potential failure of the words used to encompass or express a larger reality -- especially when the terms are used in a static sense, precluding or obscuring any dynamic interpretation.

This might be expressed as a failure to recognize the "notness" dimension -- exemplified by *Neti Neti*. It is also well-expressed by the first stanza of the *Tao Te Ching*:

*The names that can be named are not definitive names.
Naming engenders ten thousand things.*

The concern was notably explored in a previous exercise (*In Quest of "Meta-Union"? Interplay of generic dimensions of any "union of international associations"*, 2007). It was subsequently explored with respect to the *World Academy of Art and Science*, in quest of a more appropriate role and sense of purpose for the 21st Century, as separately discussed (*Local Diversity of Naysign and Nescience?* 2008).

Identification of opposites, seemingly negating current identity, may then be seen as a way of opening up a richer understanding of possibilities -- consistent with a more complex logic. The organization might then understand itself as a *World Academy of Naysign and Nescience*, although both "World" and "Academy" could be similarly inverted. In that case a "shadow" cognitive or epistemological challenge -- to a "World Academy of Art and Science" of the future -- could then be represented as a "Local Diversity of Naysign and Nescience". "Local" then implies as specially focused understanding of globality.

In seeking to envision and embody a new world, it was the above challenge of incomprehension and uncertainty which encouraged the gathering of the *Scientific and Medical Network* to consider changing its own name. Reframing each term in the light of the above argument, this suggested "hypercomplex" as a substitute for "network", "nescience" as a substitute for "scientific", and "unhygienic" as a substitute for "medical". Hence: *Hypercomplex of Unhygienic Nescience* -- as the key to "full on" engagement with messy reality.

Replacement of "scientific" by "nescience": The case is effectively made above to ensure appropriate focus on what is as yet unknown -- especially the inexplicable realities with which people are faced in their daily lives, or those which may unexpectedly emerge in the future. Science is not configured to expect the unexpected, but rather it awaits concrete evidence of its manifestation through a form of cognitive embodiment..

As noted below, nescience functions such as to engender questions rather than answers. The concern might be framed with respect to what has been effectively "remaindered" (*Reintegration of a Remaindered World: cognitive recycling of objects of systemic neglect*, 2011).

Replacement of "medical" by "unhygienic": This follows from recognition that reality as lived is not as "hygienic" as institutional efforts have long endeavoured to make it. This has been dramatically highlighted by the UN Millennium Development Goal of ensuring access to drinking water. It has been alleged in that respect that the definition of access to "improved" water supplies encouraged governments to meet the targets by delivering polluted water in new pipes (*Doubts raised over UN drinking water claim*, *New Scientist*, 8 March 2012).

More generally at this time, with respect to reports regarding progress on the set of Millennium Development Goals, it is virtually impossible to determine which reports are framed to be institutionally self-serving (whatever the failures) and which constitute undue criticism in the service of whatever alternative agenda. Basically **it is increasingly impossible to have any confidence in reports of the reality of the global situation.**

However these physical examples are paralleled by the unhygienic relationship within the sciences, between them, and in their relation to other modes of knowing. Science, like religion, has become a global monopolistic knowledge-based enterprise preoccupied with disciplined knowing as a proprietary process about which others can make no valid claim.

It can be readily said that cognitive "dirtiness" prevails and that any form of hygiene remains the exception -- typically constrained within a methodologically aseptic information silo. Whereas it could be said that the methodology of science is all about cognitive hygiene, the current world condition is such that it then has limited capacity to build up its "cognitive immune system" through exposure to "dirt" -- as exemplified in the case of the physical immunity of individuals.

For *Mary Douglas*: [*I*]f we can abstract pathogenicity and hygiene from our notion of dirt, we are left with the old definition of dirt as matter out of place (*Purity and Danger: an analysis of concepts of pollution and taboo*, 1966). As explained further:

Dirt, then, is never a unique, isolated event. Where there is dirt there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements. This idea of dirt takes us straight into the field of symbolism and promises a link-up with more obviously symbolic systems of purity.

A related point has been made by an editorial of the *New Scientist* at the time of writing. Under the heading *The Beautiful, Ugly Truth: better to see the cosmos as it is, rather than how we'd like it to be*, it argues:

The beautiful idea at hand: the universe looks much the same no matter which direction you look in, and no matter where you are. The ugly fact: it doesn't. Our hope that the universe is symmetrical, or homogeneous, at very large scales just doesn't seem

to be coming true. Why did we ever think it would? Because humans find symmetry beautiful, and because scientists have come to expect that "beauty is truth, truth beauty" as John Keats put it.... A less-ordered universe might be less pleasing to the mind's eye, and in some cases less tractable. But perhaps it's time we stopped trying to find the truth through beauty, and instead try a bit harder to find beauty in the truth of ugly facts. (28 June 2014)

Of course the argument focuses on the astrophysical universe in which humans experience themselves as living only to the most limited extent -- a comfortable realm for radical scientific speculation. The argument might however be fruitfully applied to the ugly, unhygienic reality -- beyond the mandate of science -- which many experience on a daily basis. It would seem that **the reality of truth is that it is inherently untidy**. How such hubris is to be meaningfully embodied is a challenge of a different order.

The point can be made otherwise through indication of the literature on "[wicked problems](#)". As discussed separately ([Wicked problems and the renunciation of science](#), 2014), *Wikipedia* notes that a wicked problem is a term originally used in social planning to describe a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize.

The term "wicked" is used to denote resistance to resolution, rather than evil. Moreover, because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems. Wicked problems are inherently untidy and messy ([Problems, problematique and wickedness?](#) 2014). Nescience would seem to be required to engage meaningfully with the untidiness of messy wicked problems.

Replacement of "network by "hypercomplex": This frames a challenge to the prevailing comfortable understanding of networks and networking as superseding what has been deprecated as hierarchical organization. Despite the early hopes for this metaphor, it cannot be said that network has done more than give expression to attenuated forms of unchallenging groupiness and clubiness -- however valuable such looser connectivity may be. Recent reports indicate the extent to which social media networks are subject to deliberate manipulation, if only for purposes of experimentation, in anticipation of more questionable initiatives ([US military studied how to influence Twitter users in Darpa-funded research](#), *The Guardian*, 8 July 2014; [Facebook reveals news feed experiment to control emotions](#), *The Guardian*, 30 June 2014).

The increasing hypercomplexity of society has been developed by [Lars Qvortrup](#) (*The Hypercomplex Society*, 2003). As summarized by Jeff Rutenbeck ([Bit by Bit by Bit: hypercomplexity and digital media studies](#), 2006):

Qvortrup provides a compelling perspective on the social, cultural and economic shifts taking place in the early 21 st century, especially as they relate to the processes and practices of digitization. Dispelling the notions of the "information society," the "network society," the "knowledge society," the "learning society," etc. (p. 3), he advocates for a social theory that describes current trends in social organization. Qvortrup argues that "complexity" is the guiding concept that differentiates the current and emerging society -- one that is determined by the "ability to manage complexity" (p. 4). In Qvortrup's view, complexity is not a problem to be "solved" or "minimized at all costs." Rather, he asserts [*O*]n the contrary, complexity is the solution. Stability is not achieved by the provision of a strong center, but through the provision of means fo rmutual observation. This is, by the way, the main reason for the importance of currently emerging new media technologies, with the Internet as the basic example. . . . The functional objective of society is not to create "order" out of "chaos," but to manage complexity by complexity" (p. viii-ix).

Hypercomplex may notably endeavour to embody a degree of paradox into organizational relationships and the subjective relationship with complex social organizations. This is consistent with emerging recognition of hyperobjectivity and hypersubjectivity and their challenge to comprehension. It highlights a degree of entanglement between hypersubjectivity and hyperobjects ([Hyperaction through Hypercomprehension and Hyperdrive: necessary complement to proliferation of hypermedia in hypersociety](#), 2006).

Given the case made here for mirroring, it would appear appropriate to argue that any recognition of "hyperobjects" necessitates (or engenders) recognition of "hypersubjects", if not hypersubjectivity, however this might be experienced (Temenuga Trifonova, [Is There a Subject in Hyperreality?](#) *Post Modern Culture*, 2003; Jasmine L. A. Powell, *Hypersubjectivity as a Creative Vector*, 2013). For Steve Jones:

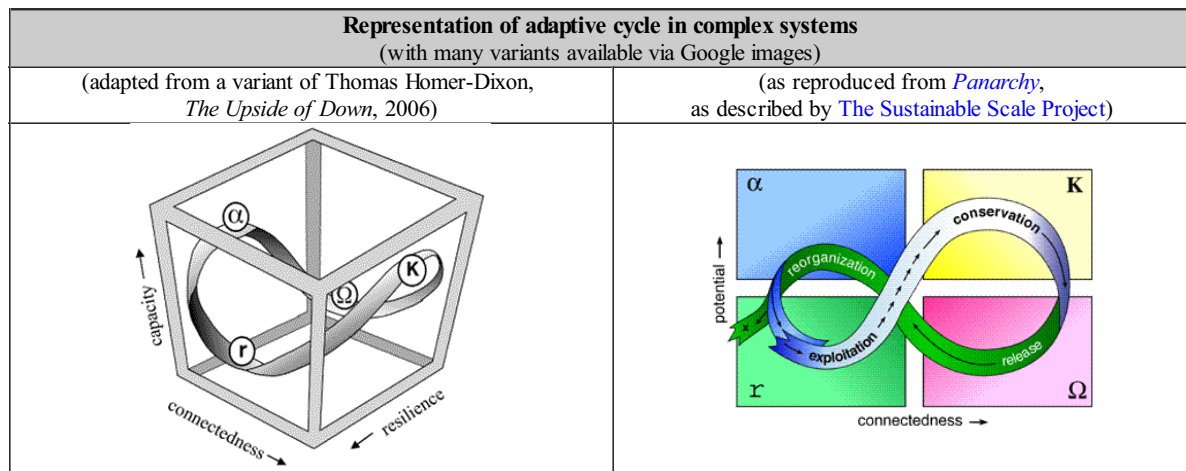
If we understand humans in a fashion similar to the way we understand digital being, might we not also level the value of our selves, or at least imagine into being a hypersubjective realm in which mediation of the self through communication is the sine qua non of networked society (*The Cyber and the Subjective*, 1999)

The issues are consistent with the recent arguments framed by [Timothy Morton](#) who has explored glbal warming as a particularly dramatic example of a "hyperobject" ([Hyperobjects: philosophy and ecology after the End of the World](#), 2013). These are entities of such vast temporal and spatial dimensions that they defeat traditional ideas about what a thing is in the first place.

Renaming in relation to the adaptive cycle: As a model, the [adaptive cycle](#) derives from comparative study of the dynamics of ecosystems, most notably through the framework of the [Resilience Alliance](#). As a tool for thought, it focuses attention upon processes of destruction and reorganization, which are often neglected in favour of growth and conservation, thereby providing a more complete view of system dynamics -- linking together system organization, resilience, and dynamics. It is central to the arguments of Thomas Homer-Dixon (*The Upside of Down*, 2006).

There is a need to understand how an organization might navigate changing phases (changing contextual "weather") ([Navigating the seasons of the adaptive cycle: natural alchemy?](#) 2014). Such phase-changing processes can be caricatured in the terms of [Edward de](#)

Bono (*Six Thinking Hats*, 1985). Renaming can be seen as making evident alternative "personalities" of the organization to facilitate navigation of the cycle. The images below suggest how the body might consider renaming itself at different points in the cycle -- rather than find itself locked into a particular expression of an identity transcending a particular name or set of names.



The schematics merit interpretation in the light of the argument above regarding connectivity in discourse -- given the probability that this may vary in different phases of the cycle. Highlighting the relation to "capacity" and "resilience" is also suggestive of possibilities of viewing the efficacy of discourse in those terms.

Depicting the cycle as a Möbius strip helps to suggest the nature of the cognitive twist that calls for recognition with respect to the process (*Twistedness in Psycho-social Systems: challenge to logic, morality, leadership and personal development*, 2004). From such a perspective, if an individual can be recognized as a "strange loop", as argued by (Douglas Hofstadter, *I Am a Strange Loop*, 2007), there is a case for exploring any collective in such terms. A cycle of renaming then enables its embodiment to a more fundamental degree.

Related arguments have been developed separately from a perspective of flow (*Flowering of Civilization -- Deflowering of Culture: flow as a necessarily complex experiential dynamic*, 2014). In relationship to confidence and coherence, this included a section on "combustion" (*Dynamics of confidence: a "combustion engine"?*).

Memorable dynamics of living and dying: Hygeia and Wu Xing

The cyclic dynamics emphasized above highlight the value of metaphors encompassing such dynamics (*Metaphors of Alternation: an exploration of their significance for development policy-making*, 1984). This is consistent with the classic text by George Lakoff and Mark Johnson (*Metaphors We Live By*, 1980). In a cyclic context related emphasis is required on their complement (*Metaphors To Die By: correspondences between a collapsing civilization, culture or group, and a dying person*, 2013). The following paragraphs are partial extracts from a separate document where the points are developed with more detail (*Cycles of enstoring forming mnemonic pentagrams: Hygeia and Wu Xing*, 2012).

Health as a verb: As implied by the cyclic emphasis, whether physical or otherwise, it would indeed seem appropriate that "health" should be understood through a verb -- rather than through a noun or static quality as previously argued with respect to other values (*Freedom, Democracy, Justice: Isolated Nouns or Interwoven Verbs? Illusory quest for qualities and principles dynamically disguised*, 2011; *Happiness as a verb -- en-joying as a dynamic?* 2011).

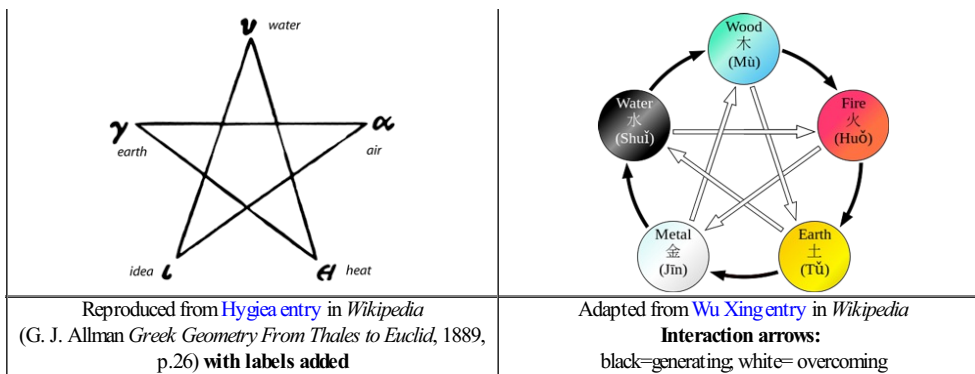
The argument is consistent with that relating to the collective health of a society -- as implied by the quest for "sustainability". This could indeed be understood as "collective health" engendered by collective "cognitive health". The phrase *mens sana in corpore sano* could be usefully reframed and inverted as a "healthy global environment within a healthy global knowledge-based society".

Insights from traditional health pentagrams: There are two classical health patterns based on use of the pentagram in Western and Eastern cultures:

- **Hygeia:** The [Pythagoreans](#) developed an understanding of health which they associated with the form of the [pentagram](#) and the Greek goddess Hygeia (also Hygieia or Hygeia) -- the personification of health, cleanliness and sanitation, and the origin of the term "hygiene" [[more](#)]. The name of the goddess is alleged to have been used as their primary greeting (perhaps, speculatively, to be considered an origin for "hug"). The snake encircled [Bowl of Hygeia](#) has long been used as one of the symbols of pharmacy. [Hygeia Internationalis](#) is now the official journal of the International Network for the History of Public Health.
- **Wu Xing:** This ancient Chinese mnemonic pattern in the form of a pentagram of five phases, or five elements, is widely known in East Asia. It is traditionally associated with [Chinese medicine](#), [acupuncture](#), [feng shui](#), and [Taoism](#).

The pattern is recognized as highlighting a cyclic relationship between the five constituent elements: fire, earth, metal, water and wood. It is the vectors of the "overcoming" or "controlling" cycle which are typically represented as a pentagram. Generative and destructive cycles are shown as clockwise and counter-clockwise circular motion:

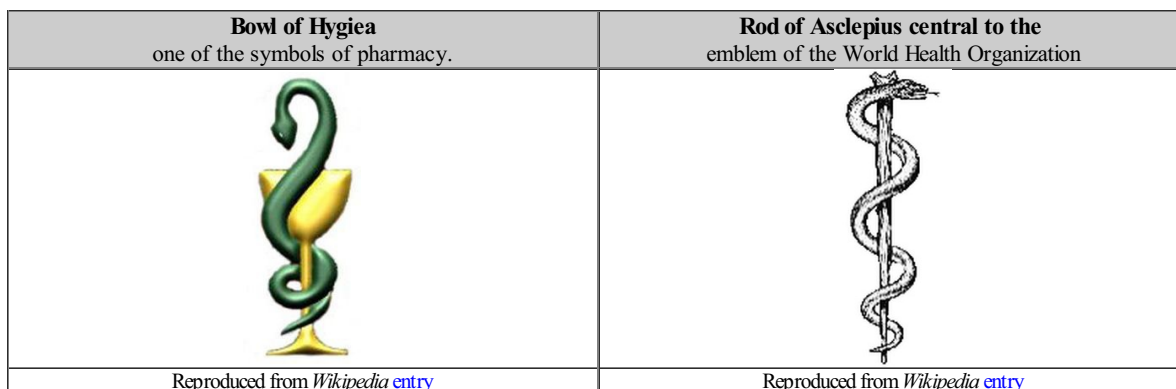
Hugieia Pentagram of Pythagoreans	Chinese 5-phase Wu Xing cycle



Despite the use of a metaphorical language in the above schematics, there is a case for exploring the "superimposition" of the schematic on the phase diagram presented earlier in order to highlight the systemic relationship between the phases. Of particular interest with respect to argumentation, is the manner in which these schematics call into question the language used above. **"Bonding" and "connectivity" can then be understood as frames, in the "solid" terminological framework of science, misleadingly applied to "liquid" and "gaseous" phases of argumentation.** Within the latter phases (and others), "bonding" and "connectivity" are experienced otherwise -- although use of the metaphor is indicative in the absence of adequate language. For example, a language of flow (or process) would be more valuable -- to the extent that this was available and enabled communication.

Static symbols of health: The [Bowl of Hygiea](#) is the most widely recognized international symbol for the profession of pharmacy today. Hygiea, the daughter of [Aesclepius](#) (Aesculapius) and the goddess of health, is usually depicted with a serpent around her arm and a bowl in her hand because she tended to the temples containing the snakes of the time. The bowl is held to contain a medicinal potion with the serpent of wisdom (or guardianship) partaking of it -- the same serpent of wisdom, which appears on the [Rod of Aesclepius](#), namely the symbol of medicine central to the emblem of the World Health Organization.

The serpent and the bowl have since been separated from Hygiea herself -- now implicit, present in name alone -- to form the internationally recognized symbol of pharmacy (cf. Ettie Rosenberg, [Bowl of Hygiea](#)). The bowl represents a medicinal potion, and the snake represents healing -- wrapped in one manner or another around it. Healing through medicine is precisely why pharmacy adopted the symbol, notably by the American Pharmaceutical Association in 1964.



The [emblem of the World Health Organization](#) consists of the United Nations symbol (incorporating a laurel wreath "clasping" a sphere) surmounted by the [Rod of Aesclepius](#), a Greek deity associated with healing and medicine. The staff with the snake has long been a symbol of medicine and the medical profession. This is frequently confused with the staff of the god [Hermes](#), the [caduceus](#), most notably within the US military (cf. [Caduceus as a symbol of medicine](#)) [see also [The Caduceus vs the Staff of Aesclepius](#)]. As the body responsible for global public health, WHO imposes considerable [restrictions on any use of its emblem](#) (which has therefore not been reproduced here). The staff is visually reminiscent of the stem of the Bowl of Hygiea. The *Wikipedia* entry offers [extensive commentary](#) on various interpretations of the symbolism of the "rod" -- readily to be understood as a [staff of office](#).

The recognized [confusion between the rod of Aesclepius and the caduceus of Hermes](#) is suggestive of a need to recognize a degree of association -- in cognitive terms -- between a reframed understanding of "health" and a reframed understanding of governance appropriate to "sustainability" in a knowledge-based society. There is a degree of irony to the parallel between the quest for eternal youth (if not immortality) associated with "health" and that for the "eternal" duration of civilizations and empires, especially when framed in terms of "growth" and "wealth".




Of particular interest are the contrasting implications regarding self-reflexivity between the two cases. This can be understood as strongly implied by the image on the left -- with the snake peering into the bowl. This is consistent with critical self-examination in the case of health -- or dubious aspirations to it ("[in one's cups](#)", etc). Such a self-reflexive dynamic is not evident in the image on the right - consistent with a lack of self-examination with respect to the health of governance.

Internal alchemy and the Eight Principles of Yong in the light of Chinese calligraphy: Of potentially remarkable relevance is the thinking with regard to the elaboration of the most aesthetic form of a Chinese character (as in widely practiced [Chinese calligraphy](#)), using eight common [strokes](#) in [regular script](#), according to the [8 Principles of Yong](#).

This is illustrated with the character *yong*, signifying "forever" or "permanence". In Japan the principles (and the associated 72 types of

"brush energy") were the focus of the Daishi school of calligraphy associated with [Kukai](#). **There is clearly a strong case for exploring what is understood by *yong* in relationship to "sustainability" -- as it is now so widely used with respect to strategic issues of governance.** Of particular relevance with respect to calligraphy are the cognitive and philosophical associations in the process of elaborating a character, as cultivated within the Zen tradition.

The directionality associated with the strokes of the *Eight Principles of Yong* can be speculatively contrasted with that of the alternative [Bagua](#) arrangements -- as presented below. This could be done through the metaphors through which the directions are traditionally distinguished. It is appropriate to note that the Bagua "categories" are recognized as having specific correspondences to the experience of the phases of states of matter in the environment.

Bagua Earlier Heaven Arrangement	Eight Principles of Yong (animation of stroke order)	Bagua Later Heaven Arrangement
		
<p>Images from <i>Wikipedia</i>; experimental animations of the Bagua arrangements are presented separately (<i>Animation of Classical BaGua Arrangements: a dynamic representation of Neti Neti</i>, 2008)</p>		

These considerations might prove to be fruitfully associated to those of [Neidan](#), namely the cognitive processes of internal alchemy, traditionally relating to the quest for "immortality" -- perhaps to be understood in terms of those required for "sustainability". Of particular interest, in her introduction to *Neidan*, Robinet cites Li Daochun in explaining that there are two directions. One of them follows the ordinary course and goes toward the end: it is the "operation" (*yong*), the actuation. The other goes backward, and consists in returning to the Origin: it is the "substance" or the "body" (*ti*) of all things.

If you know the origin and ignore the end, you cannot expand; if you know the end and ignore the origin, you cannot attain the foundation of subtlety. Those who go back to the Origin are vaguely and indistinctly joined with the Ultimateless; those who go to the end are born, transform themselves, and die endlessly. Going backward and going forward are necessary to one another, because the origin and the end are not two.

Robinet then remarks that the ordinary persons who "follow the course" generate other beings. The seekers of immortality, who go backward, generate an embryo of immortality within themselves. They self-regenerate.

In pointing to the mnemonic potential of these patterns, the purpose is primarily to indicate a suggestive possibility for exploration rather than to highlight a definitive relationship. Juxtaposing fundamental patterns of insight of Eastern and Western cultures might be understood as offering a requisite degree of "polyocular" depth perception (*Enhancing the Quality of Knowing through Integration of East-West metaphors*, 2000). This is a theme developed by Magoroh Maruyama (*Polyocular Vision or Subunderstanding, Organization Studies*, 2004).

Mnemonic possibilities towards cognitive health in cyclic terms: For the purpose of this argument, the question is whether the image of the snake and the bowl can be used as an evocative (even provocative) mnemonic device to carry further significance in relation to sustaining a healthy cognitive system, its integrity, and any processes of corrective healing. It is readily acknowledged that physical health is dependent on a set of interacting **circulatory systems** (blood, lymph, air, nerve impulses, etc). The question is whether cognitive health merits similar recognition. The following possibilities could be considered:

- **Cyclic nature of health from cognitive perspective:** This has been discussed further in relation to the traditional Taoist understanding of the "circulation of the light" (cf. *Circulation of the Light: essential metaphor of global sustainability?* 2010). It is appropriate to note the importance attached to the pentagram in the western neo-pagan tradition -- especially given the attentive engagement with the natural environment in that tradition, offering a degree of bridging to the *feng shui* insights of Taoism relating to the environment.
- **Forms of enstoring as phases in a cyclic enwholing process:** Use of the "bowl" might itself imply a 5-stage process discussed in the extended version (*Imagination, dreams, drugs and imbibing / Promise, potential, possibility and pattern / Rocks and rockets / Memorials and monuments / Petrification and entombment*). In the cycle, the last then engenders the first -- objectivity "re-recognized" and reframed experientially.
- **Recognizing the systemic cycle implied by the snake:** As represented in the two images above, there is little sense of the dynamic in which the snake is engaged. In both cases the image is essentially asystemic, whether or not systemic connectivity is variously implied. Further possibilities include:
 - the circular stirring motion associated with appropriately mixing ingredients through that motion (in the bowl)
 - the completion of the cycle by the snake to form an **Ouroboros**, implying a higher order of sustainability and cognitive integrity

- the implication that the snake enables and embodies circulation, as explored with respect to the above-mentioned "circulation of the light"
 - the potential of any "connection" between head and tail of the snake -- especially with the head depicted as peering into the bowl -- as an indication of self-reflexivity (as previously discussed)
- **Engaging with a "cosmic serpent":** In a period of global environmental concern in which one preoccupation is possible disruption to the world-encircling thermohaline circulation -- the [ocean conveyor](#) -- its serpentine pattern is fruitfully echoed by the serpent in both images. This mythological theme, otherwise recognized as the Rainbow Serpent, has been extensively explored by [Jeremy Narby](#) (*The Cosmic Serpent: DNA and the origins of knowledge*, 1995) in the light of insights from the [Ashaninca](#), through their ingestion of [entheogens](#), specifically [ayahuasca](#) (by which they are ritually "stoned"). As Narby argues, the serpent offers mnemonic clues to the form and dynamic of DNA. The pentagram of Hygiea might even be considered indicative of an axial view of its structure (as mentioned above in terms of a decagon).

Hygiea's alleged preoccupation with "caring for snakes" -- understood in relation to the global health of the environment -- is indicative of the wisdom of a healthy concern for the ocean conveyor, as previously discussed ([Potential Misuse of the Conveyor Metaphor: recognition of the circular dynamic essential to its appropriate operation](#), 2007). A widely recognized consequence of the lack of care for this conveyor is the expanding gyre of marine litter in the central North Pacific Ocean, known as the [Great Pacific Garbage Patch](#) (or Pacific Trash Vortex). Systemic analogues within individual and collective psychology can be readily imagined. Provocatively it may be imagined that the circulation of a multiplicity of factoids and opinions via the web might come to be seen in this light.

Given the currently evident global financial crisis and that of the eurozone, it is appropriate to recognize that the serpent metaphor, in the form of the "[snake in the tunnel](#)", was the first attempt at European monetary cooperation in the 1970s. It aimed at limiting fluctuations between different European currencies. Controlling serpentine fluctuations is currently a design preoccupation in the control of circulating nuclear plasma in fusion reactors -- seen as a key resource for future energy needs. Both suggest analogues of relevance to cognitive health ([Primary Global Reserve Currency: the Con? Cognitive implications of a prefix for sustainable confidence](#), 2011; [Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing \(ITER-8\)](#), 2006)

The above possibilities contrast curiously with the emphasis on health as a **state** rather than a **process**. For the World Health Organization: *Health is a state of complete of physical, mental and social wellbeing and not merely the absence of disease or infirmity*. The contrasting view has been notably articulated by Pierre Morin ([Health as a Process: believing in change as healing and that healing is change](#), *Creative Healing Blog*, 2012): *Health is not a state, but a process which is guided by a norm or standard which when threatened stimulates our awareness and motivates us to change*.

Beyond verbose: engendering succinct transformative questions

The above argument, as with so many (including that of Lawson), is essentially "[verbose](#)". Although the term normally has pejorative connotations, it is also used technically to refer to extended articulation, especially as an option in web displays. However, in both senses, it is characteristic of the challenge of information overload and the problems of cognitive [throughput](#). Aesthetic possibilities, notably notary, have been presented as an alternative.

Succinctness: Unfortunately many forms of poetry are themselves readily perceived as verbose. This suggests the need for a shift in focus from conventional argumentation, whatever the degree of connectivity, to either humour or questions -- although, as the key to the integrity offered by poetry, an unusual metaphor may well serve memorably. The punch line of humour deliberately reconfigures and reframes any verbose prelude, as may be variously appreciated ([Humour and Play-Fullness: essential integrative processes in governance, religion and transdisciplinarity](#), 2005).

Questions: These are however potentially of even greater relevance to the challenge of information overload. Like humour they tend to reconfigure and reframe -- possibly without the need for any verbose prelude. They may well be readily experienced as profoundly challenging, suggesting fruitful integration of a more complex pattern of dimensions -- as a question which "makes a difference".

They may also be respectful of necessary paradox which they are widely used as a means of framing -- as with many Zen [koans](#) (notably the collection of 48 forming the so-called [The Gateless Gate](#)). Such a question may then preclude the need for any answer in verbose form. Some questions are valued as a meaningful focus for lifelong meditation ([Am I Question or Answer? Problem or \(re\)solution?](#) 2006).

Enigma: It was in this light that the gathering considered the formulation of a question to embody its conclusions. The challenge was what constituted a suitably enigmatic question -- and how might it be elegantly expressed in poetic form?

One example cited was the Enigma of Bologna (discussed below) -- extensively explored by Carl Jung as an alchemical paradox, notably analyzed by Steven Rosen (1995), as indicated by Nathan Schwartz-Salant (*The Mystery of Human Relationship: alchemy and the transformation of the self*, 2003, p. 77). The fictional mysteries of [Dan Brown](#) (*The Da Vinci Code*, 2003; *The Lost Symbol*, 2009) are of relevance in the light of the attention they arouse.

In this mode, what might an organization usefully choose to have inscribed upon its tombstone -- a prelude to its possible transformative reincarnation? Given the references to T. S. Eliot in the argument above, it is appropriate to note the inscription in his case: ***Here Lies One Whose Name Was Writ in Water***.

Deadly question: In exemplifying succinctness, one concern was whether it constituted an appropriate vehicle through which to communicate the intentionality of the hypercomplex. Another concern however was whether the question was adequately "deadly", as separately discussed ([World Futures Conference as Catastrophic Question: from performance to morphogenesis and transformation](#),

2013). The focus there was on the extent to which it was appropriately "fatal" to the conventional form of the gathering and its organization. By this was meant the degree to which it functioned as a catalyst triggering the transformation of that form -- as with that from chrysalis to butterfly.

Given the use of a phase diagram as a means of framing any phase transition, could a question of this kind be usefully recognized as associated with a "critical point" in such a schematic?

Embodying topological succinctness beyond questions

With respect to argumentation and communication, the considerations above give focus to the quality of succinctness which is both readily communicable and memorable. This is clearly a concern in marketing and in the promotion of any cause. How well does a message travel? How long does it persist in communication space? How can its interestingness be distinguished and enhanced? This can be explored with respect to the investment of attention and how it may be elicited (*Investing Attention Essential to Viable Growth*, 2014). The latter discussion was framed in terms of the radical self-reflexive reappropriation of financial skills and insights.

Opting for [self-immolation](#) and [suicide bombing](#) could be seen as one tragic interpretation of the need for widely memorable succinct expression. It merits very careful exploration in that light, as with cognitive processes leading to more conventional forms of suicide (*Metaphors To Die By: correspondences between a collapsing civilization and a dying person*, 2013). More generally, succinctness could be understood as associated with gesture -- the more dramatic, the more effective. Hence its appreciation in politics and social other processes.

Twitter has made evident another response offering a degree of viability. However the very high quantity of tweets renders the modality questionable, over the longer term (if it remains of any consideration), irrespective of how viral may be the dissemination and uptake -- as with other such social media.

Erosion of collective memory: The unmemorability of message relevance is of concern -- namely the rate of (collective) memory erosion, or the capacity for memory retention. This might be explored as a cognitive form of so-called [link rot](#) -- appropriately also known as "link death". This could be usefully reviewed in the light of measures of the [half-life](#) of radioactive isotopes, of which the following are examples (linking to [Wikipedia List of isotopes by half-life](#)):

Measures indicative of rate of memory decay ("cognitive link rot")		
Order of half-life	Specific examples	
	Isotopes	Half-life (approx)
10⁰ seconds	carbon-15	2.5 secs
10³ seconds	sodium-24	16 hours
10⁶ seconds	chromium-51	28 days
10⁹ seconds	uranium-232	69 years
10¹² seconds	lead-202	52,000 years

Such a framing is of relevance both to collective memory and to the individual tendency to forget (*Societal Learning and the Erosion of Collective Memory*, 1980). With respect to the individual, this becomes ever more relevant with aging of the population -- and especially of strategic decision-makers. With the increasing incidence of [Alzheimer's syndrome](#) and [Attention deficit hyperactivity disorder](#) (ADHD), it may become of deep personal concern -- possibly a major challenge through progressive erosion of any sense of personal identity.

The seeming obscurity of this argument may well invite only the most limited forms of conventional attention. Ironically however, its relevance to the sustainability of personal identity and the sustainability of cognitive health is reminiscent of the "health" justifications so frequently advanced with respect to the need for investment in aerospace and similar technologies. The traditional preoccupation of alchemy with "immortality" may then be compared with current preoccupation with "sustainability" and [personal life extension](#). In this case, however, the concern could be said to be with "attention sustaining technology".

Interestingness: The media endeavour to address the challenge through human interest stories enhanced by dramatic photos. Eliciting poignancy is a factor transcending the verbose and extensive photo coverage. Related techniques may be deliberately used to manipulate opinion. Abraham Lincoln's caution remains however:

You can fool all the people some of the time, and some of the people all the time, but you cannot fool all the people all the time.

Given the framing offered by the phase diagram above, what might be the characteristics of a communication which could "work" -- transformatively and globally? Is it in fact necessary that the message -- the point to be communicated -- should indeed be embodied in some way, even enacted? Is use of "point", as a geometrical metaphor, itself fundamentally misleading (*Metaphorical Geometry in Quest of Globality -- in response to global governance challenges*, 2009)? How should it be contrasted with the scoring of points or goals, which are a focus of so much interest in games of every kind?

Topological paradox: With respect to succinctness, more general consideration can be given to topology (rather than geometry), as it figures most notably in the work of Steven Rosen (*Topologies of the Flesh*, 2006; *Dimensions of Apeiron: a topological phenomenology of space, time, and individuation*, 2004). He discusses at some length the above-mentioned Enigma of Bologna, together with the alchemical interpretation given to it by Carl Jung (*Dreams, Death, Rebirth: a multimedia topological odyssey into alchemy's hidden dimensions*, 2014).

*This is a tomb that has no body in it.
This is a body that has no tomb round it.
But body and tomb are the same.*

Interpretation of concluding stanza from Latin,
in commentary by Carl Jung
(*Mysterium Coniunctionis: an inquiry into the separation and synthesis of
psychic opposites in alchemy*, 1963, p.81)

Appropriate to the language challenge addressed by alchemy, Jung claims both that the original Latin inscription constituted an ideal alchemical text (to which he devoted considerable attention) and that the simultaneous assertion of everything and nothing was "nonsense". He added that it became a "flypaper for every conceivable projection that buzzed in the human mind" (Jung, *Collected Works*, 14, p. 68), as discussed by Michael Mitchell (*Hidden Mutualities: Faustian Themes from Gnostic Origins to the Postcolonial*, 2006, pp. 89-90). His consideration of it resulted in the above "interpretation" of the Latin original. It could be said that he transformed the text in ways consistent with the alchemical methodology -- rendering the enigma either more enigmatic or more significant.

Of interest with respect to the above argument, the Latin original is characterized by multiple application to various (binary) categories of "nec" (meaning "neither", "not" or "nor"), concluding with "sed omnia" (meaning "but everything"). Ironically one interpretation of the inscription might then take the more succinct multilingual form of: *Neti Neti. Sed Omnia*. This is of additional relevance in a period when the quest by science for a [Theory of Everything](#) is itself subject to challenge (Russell Standish, *Theory of Nothing*, 2006).

Encompassing everything cognitively: It is however the topological representation of the encompassing framework that Rosen calls into question by reference to the paradoxical cognitive distinction between insiderness and outsiderness, as illustrated by the Klein bottle. In his terms:

These words from the Enigma of Bologna darkly intimate the underlying design of the subtle body. We have now reached the point where allusively pictorial images... [previously presented]... will no longer suffice. Presently, we must attempt to bring the inside-out structure of our infinite body into sharper focus, distill it with greater precision (2014, chapter 3).

The concern is the emptiness of the tomb with which the body may be variously identified. In alchemical language the challenge is the nature of the container for [alkahest](#) -- the universal solvent. Understood cognitively, it is this mysterious fluid which is capable of dissolving any solid distinction framed by the conventionally "frozen" categories characteristic of language.

Embodying the world: The point may be made otherwise by reference to Leonardo da Vinci's famed [Vitruvian Man](#) (image below) -- framed by "architectural" proportions and originating from the same period as the Enigma. As encompassed architecturally in the image, the human being can also be understood as "entombed".

It is in this sense that the ring encircling the Vitruvian Man can be explored with respect to separate arguments regarding the "The-O ring" (*The-O Ring and The Bull Ring as Spectacular Archetypes: dramatic correlation of theatre, theory, theorem, theology, and theosophy*, 2014). As stated there, the argument could be caricatured by an adaptation of the title of a [famed study of psychotherapy](#): *We've Had a 1000 Years of Theo -- And the World's Getting Worse*.

The Vitruvian Man is widely used to illustrate the principle of *man as the measure of all things*. It is indicative of how "everything" is reflected, or mirrored, in man -- especially in terms of comprehension -- most notably in the light of arguments made by [George Lakoff](#) and colleagues (*Philosophy In The Flesh: the embodied mind and its challenge to western thought*, 1999; *Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2001). This is suggestive of how humans might "embody" the world -- even creatively *Envisioning and Embodying a New World*, (as was the theme of the 2014 gathering of the Scientific and Medical Network).

Challenging embodiment: The extent to which Vitruvian Man has exemplified the problematic insensitivity highlighted by feminist scholars has been fruitfully discussed by Thomas Spitzer-Hanks (*As Through a Glass, Darkly: abjection and masculinity in narrative*, 2010):

In his guise as universal ideal Vitruvian Man explains the cosmos, the divine, and the orderly relations between the two as a function of specificity disingenuously subsumed in supposedly objective, representative humanity. He is the perfect thinker whose body does not matter... the expression of ideal genetic potential towards which humans should strive. In his relation to mathematics and science he is the embodied virtue of objectivity, the 'logic of the One' clothed in flesh and thus the ideal scientist, philosopher, and statesman.

Spitzer-Hanks then articulates the challenge to this interpretation:


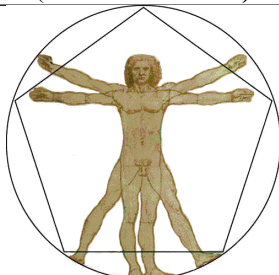
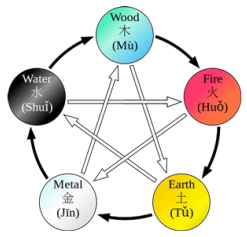
However, there is another way of reading Vitruvian Man. He can be read as symbolic of the male as the pinnacle of the human, the white as the pinnacle of the ethnic, and the phallus as the safe, symbolic stand-in for the messy, intractable penis. In fact Vitruvian Man is an incarnation of the ancient Greek ideal of the *kalagathon* ([Margaret Morse](#), 1983).

He continues:

Vitruvian Man is thus shown to be an index of the normative power of white masculinity, linked to scientific knowledge, social control and political-imperial application of that power. In his guise as ideal he leads the way towards patriarchal assumptions about gender, ethnicity, sexuality, and social order that privilege the human only in as much as it resembles the kalagathonic ideal, and offers the seductive vision of perfect sight, perfect knowledge, and absolute Truth.

This plays out in the contrast between the worldwide attention invested in the FIFA World Football Cup for men and that for women -- of which few are aware -- in a period of bloody regional conflicts. As a preliminary exercise, "Vitruvian Man" can be embedded in an animation (below) with "Vitruvian Woman" -- in which the skin colour of both is changing. Skin colours could have ranged through those of the [von Luschan scale](#) or those of the [Fitzpatrick scale](#). However the point is perhaps better made by the addition of unusual skin colours for both.

Human mirroring: The challenge of succinctness remains -- especially worldwide comprehension of the world in all its complexity, under the conditions of information overload noted above. It is in this respect that Vitruvian "Man" is only partially indicative of a human being as constituting what is effectively a cognitive mapping surface -- understood through topological forms of requisite complexity. However, with its associations to vitrification, mirrors and glass ceilings, there is a need to shatter the mirror, or to step through it in some "magical" way (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008). The static ideal image clearly fails to take account of "black", "female", and multiple variants, which together contribute to the challenging dynamics with which people are faced.

Subtle correspondences?		
8 Principles of Yong	Vitruvian Animation -- man/woman (multi-coloured variant)	Wu-Xing cycle
		

Of some potential relevance with respect to the paradoxical relationship between "everything" and "nothing" is the famed [Euler identity](#), rated the greatest mathematical equation ever. Of it [Benjamin Peirce](#) remarked: *It is absolutely paradoxical; we cannot understand it, and we don't know what it means, but we have proved it, and therefore we know it must be the truth.*

Memetic compression: homunculus and simulation: Missing from the argument from principle regarding "measure of all things" is a sense of how cognitive complexity is embodied, namely how it is "memetically compressed" -- rendered integratively succinct. It is in this sense that the controversial alchemical process of creating a cognitive [homunculus](#) merits consideration as a mapping surface -- namely of **how to embody reality as a readily comprehensible mapping template or embodied simulation.**

Whilst "homunculus" may be readily dismissed as exemplifying the need to deprecate alchemy, understanding its creation as a form of [computer simulation](#) in the most modern sense calls for careful consideration of its cognitive implications. How does an individual engender and sustain a personal image -- effectively an internal model? More challenging, if only in a speculative sense, is the continuing debate on whether humans live in a [simulated reality](#) -- a theme explored as [simulated reality in fiction](#), even pre-dating science fiction.

As with any mnemonic aid, the question is how to associate the diversity of reality with a surface which has integrative characteristics ([Frances Yates, *The Art of Memory*, 1966](#)). With regard to memetic compression, it is of course genetic organization which offers valuable clues ([DNA Supercoiling as a Pattern for Understanding Psycho-social Twistedness, 2004](#); [Climbing Elven Stairways: DNA as a macroscopic metaphor of polarized psychodynamics, 2007](#)).

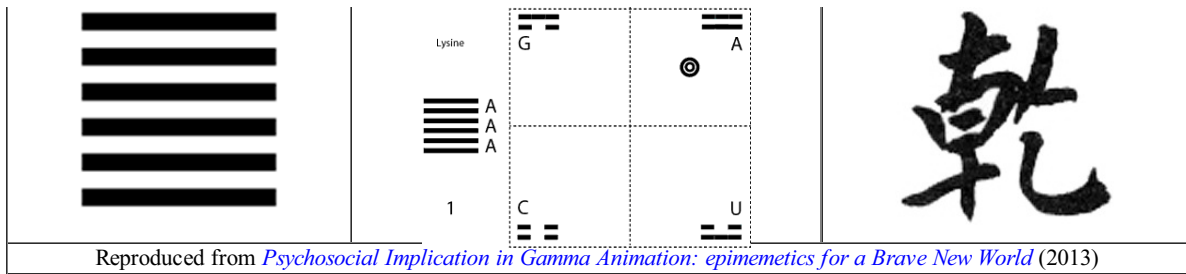
With respect to worldwide comprehension in a global knowledge-based society, succinctness is curiously undermined to the highest degree by intellectual property right. This can be understood as a form of closure and entombment of knowledge -- and, as such, an "enigma" in its own right. Ironically this applies in particular to many texts and images of relevance to this argument. These could be caricatured as disseminated under a questionable model of the past, as exemplified by the [Encyclopaedia Britannica](#) -- much challenged by the open source model of [Wikipedia](#).

Imaginal transformation of energy resourcing (ITER-8): The following series of thumbnail images offers insights into the **containing vessel** for a dialogue/argumentation process to be variously understood -- from mutually challenging complementary perspectives. The images are the subject of more detailed discussion above, or as cited.

The set of thumbnail images immediately below offers insights into the containing vessel itself -- for a process to be variously understood. That on the right is of the design of the [ITER toroidal nuclear fusion reactor](#), currently under construction. The argument here is that, as a product of the human mind for energy creation and management, it may well offer insights into the design and operation of a sufficiently complex container for the psycho-social processes characteristic of global dialogue, as separately discussed ([Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing \(ITER-8\), 2006](#)).

The argument for seeking inspiration from technological designs can be discussed in relation to technomimicry ([Engendering a Psychopter through Biomimicry and Technomimicry: insights from the process of helicopter development, 2011](#); [Technomimicry as key to a new mode of knowing? 2014](#)). The ITER reactor design is of fundamental significance in that it requires that the circulating [plasma](#) not come in contact with the walls of the container -- with what this suggests in the light of the arguments above regarding the inadequacy of conventional use of containing categories and words. As reframed, ITER-8 may therefore be considered an alchemical vessel appropriately prefigured by ITER. The "plasma" in question is then intimately associated with some form of attention.

Rather than the simple torus design of ITER, that required as a cognitive vessel (ITER-8), needs to be considered in terms of the



As with the static configuration of *I Ching* hexagrams (in the logo of this site, as explained elsewhere *Challenges to Comprehension Implied by the Logo*, 2007), **the purpose here is to explore technical possibilities of representation that may elicit new insight -- engendered by greater cognitive resonance with such representations.** It should be noted that the rotation of the arrangements presented below does **not** correspond to traditional representations. (*Animation of Classical BaGua Arrangements a dynamic representation of Neti Neti*, 2008). The 8-fold pattern offers a reason for the reframing of ITER-8.

Animation of Bagua "earlier heaven" arrangement (rotating anti-clockwise)	Suggestive superimposition of Wu-Xing cycle on the phase diagram	Animation of Bagua "later heaven" arrangement (rotating clockwise)

The four sets of three complementary images together suggest the possibility of a 12-fold juxtaposition of the set of constraints on the attention-plasma "snake". One indicative animation is presented separately (*Animation suggestive of the experiential system of interwoven creative processes*, 2014).

Extraterrestrial perception?: The issue can be speculatively framed otherwise in terms of any expectation by extraterrestrials, especially in the light of the apparent failure of ETs to communicate with humanity. Would ETs consider significant communication to be framed otherwise than through questions or answers? Are there questions of a higher order to be recognized as a requisite of such communication -- perhaps to be provocatively framed as suggested by crop circles, but of a cognitive nature?

Is there a modality distinct from question/answer which would be fundamental to interestingness in their terms -- and the avoidance of boredom? Does potential communication with humanity currently constitute a problem of *deja vu* for ETs, especially given currently imagined scenarios of such dialogues as elaborated by Vitruvian "Man"? (*Sensing Epiterrestrial Intelligence (SETI): embedding of "extraterrestrials" in epistemic dynamics?* 2013).

Rather than ET's, the issue can be explored with respect to the threats to humanity expected from advances in artificial intelligence, as discussed by Nick Bostrom (*Get ready for the dawn of superintelligence*, *New Scientist*, 5 July 2014). In this case also, however, superintelligence may require that communications be "formatted" succinctly and otherwise to elicit a meaningful response (*Superquestions for Supercomputers*, 2010).

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