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Strategic Challenge of Polysensorial Knowledge bringing the "elephant" into "focus"

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Introduction

The following summary table follows from a concern with the strategic bias towards metaphoric framing solely through "vision" rather than through appropriate use of other senses and "ways of knowing" (*Metaphor and the Language of Futures*, 1992; Antonio de Nicolas, *Habits of Mind: an introduction to philosophy of education*, 2000; Howard Gardner, *Frames of Mind: the theory of multiple intelligences*, 1983). This enrichment is now recognized in "extra-sensory marketing", otherwise known as **neuromarketing** (Martin Lindstrom, *Brand Sense: build powerful brands through touch, taste, smell, sight, and sound*, 2005; Vladimir Djurovic, *Sensorial Branding: the future of brand building*, *EzineArticles.com*. 15 August 2008).

The need for a combination of complementary approaches has been argued by Magoroh Maruyama (Polyocular Vision or Subunderstanding, *Organization Studies*, 2004). Clearly in strategic articulation there is then a need to combine appropriately the cognitive approaches of distinct senses, if only metaphorically -- a polysensorial approach (*Cyclopean Vision vs Poly-sensual Engagement*, 2006).

The question is to what degree this approach opens up new possibilities -- precluded by the "vision" emphasis in providing a "focus" within that metaphor for divergent thinking, as offered by the strategic methodology of a recent study by the RAND Corporation's National Security Division (Paul K. Davis, *et al.*, *Enhancing Strategic Planning with Massive Scenario Generation Theory and Experiments*, 2007).

Polysensorial "focus": comprehending the nature of the "elephant"

The strategic challenge (in the title) derives partly from the classic tale of the **7 blind men confronted by an elephant** (that they are collectively seeking to comprehend) and partly from the argument that the "invisible" **elephant in the living room** of current strategic development is that of overpopulation (*Climate Change and the Elephant in the Living Room*, 2008). The question is how the metaphoric filters, based on different senses, effectively work dysfunctionally together. Metaphorically this is part of the challenge of sensory processing disorders for a knowledge society, as discussed elsewhere (*Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures*, 2008).

Seven "blind men" endeavouring to comprehend the "elephant in the living room"								
Metaphorical vehicles	.	Vision Sight	Hearing Sound	Speech Dialogue	Taste Gustation	Odour Smell	Feel Touch	Cognition Thinking

Sensory processing disorders		Blindness, Presbyopia, Dyslexia Myopia, etc Dyslexia	Hearing impairment	Speech impediments or disorders	Taste disorders (Ageusia, Dysgeusia) Eating disorders	Smelling disorders (Anosmia)	Tactile disorders	Sensory integration dysfunction, (Delusional disorders)
Vision Sight	Hypo	Blindness Short/Long sight	>>	>>	>>	>>	>>	>>
	Hyper	Hypersensitive See "too much"	>>	>>	>>	>>	>>	>>
Hearing Sound	Hypo	<<	Deafness Tone deafness	>>	>>	>>	>>	>>
	Hyper	<<	Over-sensitive Hear "too much"	>>	>>	>>	>>	>>
Speech Dialogue	Hypo	<<	<<	Dumb Speak ill	>>	>>	>>	>>
	Hyper	<<	<<	Say "too much" Logorhea	>>	>>	>>	>>
Taste Gustation	Hypo	<<	<<	<<	Taste? Pallet	>>	>>	>>
	Hyper	<<	<<	<<	Fussy Fastidious	>>	>>	>>
Odour Smell	Hypo	<<	<<	<<	<<	Odour insensitivity	>>	>>
	Hyper	<<	<<	<<	<<	Odour over-sensitivity	>>	>>
Feel Touch	Hypo	<<	<<	<<	<<	<<	Unfeeling Heartless	>>
	Hyper	<<	<<	<<	<<	<<	Hypersensitive	>>
Cognition Thinking	Hypo	<<	<<	<<	<<	<<	<<	Unthinking Don't think
	Hyper	<<	<<	<<	<<	<<	<<	Think too much
Use of prosthetic aid	Dependence	Spectacles	Hearing aid	Prompt	Spices	Fragrances	PR	?
	Avoidance	(for vanity)	(for vanity)	(for vanity)	.	.	.	?
Dysfunctional collective interaction		Don't read	Rumour-mongering	Gossiping	Over-consumption	Over-perfumed	Invasive bonding gestures	"Dumbing down"?
Constrained distinguishing capacity		Colour blindness	Tone deafness	Insensitive speech	Tastelessness Restricted pallet	No smell?	Emotional insensitivity	Limited recognition of spectrum of options
Remote capacity (virtual)		Text, Web, Video, CCT	Telephone, Radio, Bug	Telephone, Radio, Bug	Aesthetics?	?	Haptic?	Augmentation of collective intellect

Problematic bias: Except by implication, the table above is itself biased in that an alternative presentation might have highlighted the distinct cognitive skills (intelligences) associated (metaphorically) with each of the senses -- enabling them collectively to have much greater capacity to detect and comprehend the nature of the "elephant".

Neuronal models for cognitive processes

In response to an early version of the above table, [Robert Daoust](#) (personal communication) points to the work of [Arnold Trehub](#) (*Neuronal Models for Cognitive Processes: networks for learning, perception and imagination*, Journal of Theoretical Biology, 1977; *The Cognitive Brain*, 1991). This focuses on neuronal mechanisms he names the Retinoid Model. In a subsequent paper (*Space, Self, and the Theater of Consciousness, Consciousness and Cognition*, 2007), Trehub argues that:

This hypothesized brain system has structural and dynamic properties enabling it to register and appropriately integrate disparate foveal stimuli into a perspectival, egocentric representation of an extended 3D world scene including a neuronally tokened locus of the self which, in this theory, is the neuronal origin of retinoid space. As an integral part of the larger neuro-cognitive model, the retinoid system is able to perform many other useful perceptual and higher cognitive functions. In this paper, I draw on the hypothesized properties of this system to argue that neuronal activity within the retinoid structure constitutes the phenomenal content of consciousness and the unique sense of self that each of us experiences.

Daoust however argues that what Trehub calls "retinoid system" may well be found in an analogous form for the other senses, namely (as he suggests) as an "olfactoroid system", an "auditoroid system", etc -- whereby humans obtain their egocentric understanding of the world. Daoust suggests that the merit of Trehub's approach -- in enabling any more comprehensive understanding of the "elephant" -- lies in the role played by internal cerebral structures in the process of perception. With regard to *Interaction between analogical and symbol/token representations* and *The theater of consciousness*, Trehub states:

On metaphorical grounds, I do not think it stretches matters much to think of specialized neuronal mechanisms such as synaptic matrices, semantic, and affective/hedonic circuits (see Trehub, 1991, pp. 153-168) which categorize/evaluate the cellular activity presented on the retinoid "stage" of C3 as something like a critical observing audience.

Elsewhere Trehub, through a review (*Review of Revonsuo's Inner Presence*), relates his own framework to a recent summary of research on the matter by Antti Revonsuo (*Inner Presence: consciousness as a biological phenomenon*, 2006).

Within the context of an exploration of the process of eliciting "collective intelligence" (Mark Tovey (Ed.), *Collective Intelligence: creating a prosperous world at peace*, 2008), such intelligence has been understood in terms of "collective sense-making" through the "development of collective sensing organs" as highlighted by George Pór (*Cultivating Collective Intelligence: a core leadership competence in a complex world*, 2008), citing various authors (although emphasizing the sense of seeing and dialogue):

The neural networks in living systems, biological or social, are not the source but vital enablers of CI. 'The nervous system of the global super-organism has a potential to enable the emergence of a collective intelligence, the same way as organic nervous systems enable the emergence of intelligence in living systems.'... 'Collective sensing mechanisms use the power of shared seeing and dialogue to tap an unused resource of collective sense-making and thinking together.' Some questions worth asking are: How can groups and organizations upgrade such collective sensing organs as their knowledge networks and self-organizing knowledge ecosystems? How to improve the organizational functions supporting and being supported by them? (p. 241)

Biocultural paradigm and neurobiology

In work consistent with the mindscape perspective of Magoroh Maruyama (cited above), and with Robert Daoust's suggestion, Antonio de Nicolas (*Meditations through the Rg Veda: four-dimensional man*, 1978) identifies four Rgvedic "languages" ("language of Non-Existence", *Asat*; "language of Existence", *Sat*; "language of Images and Sacrifice", *Yajna*; and "language of Embodied Vision").

The embodiment of Rg Vedic man was understood... as an effort at integrating the languages of *Asat*, *Sat* and *Yajna* to reach the *dhīh*, the effective viewpoint, which would make these worlds continue in their efficient embodiment.

Together with the extensive focus of Steve Farmer, *et al.* (*Neurobiology, Layered Texts and Correlative Cosmologies: a cross-cultural framework for pre-modern history*, *Bulletin of the Museum of Far Eastern Antiquities*, 2000) on neurobiology, the earlier work of de Nicolas (*The Biocultural Paradigm: the neural connection between science and mysticism*, *Experimental Gerontology*, 1997) had explained the paradigm of Maria M. Colavito as an invariant and embodied epistemology in human cultures and individuals, and not a metaphorical structuring (*The Heresy of Oedipus and the Mind/Mind Split: a study of the biocultural origins of civilization*, 1995).

This study claims the expansion of the focus of the study by Farmer *et al.* as the allocation of the fight between the proponents of Nature and Nurture in the war for supremacy of their interaction in humans. The **biocultural paradigm** notably relates these Vedic languages (cultures) to 5 epistemologically invariant styles (maia, mythos, right brain mimesis, left brain mimesis, and logos, in their cultural form, and reptilian, limbic, right-brain mimetic, left-brain mimetic and "interpreter module" in their neurobiological origins), as they are themselves the product of 5 features of the brain (reptilian, limbic, right and left hemisphere, and the interpreter module), and as they are given supremacy by the nature-nurture interaction at the appropriate periods of individual growth (understood as windows of malleability).

The result of their work is the claim that every individual owes allegiance to one primary intelligence center (brain) as the pilot brain of any decisions, judgments, interaction with others. This conclusion is ratified by the subsequent study of cultures and neurobiology. The implication for this polysensorial argument is that the different ways of engaging with or reading the world, large or small, will be the result of the particular dominant brain we have individually engendered through the nature-nurture interaction.

Sensorial displacement

The above table might also be used to highlight the tendency in practice to "displace" particular senses -- designing their role as cognitive metaphors out of formal dialogue processes and into associated contexts: receptions, entertainment, local tourism, etc. In some poorly "re-cognized" manner, these processes give some "sense of reality" to the formal dialogue process.

Thus, typically, much is made of the "vision" metaphor in dialogue processes in which thought is given to strategy formulation. Although curiously this vision is most often expressed verbally in speeches in the expectation of an attentive "audience" -- most notably by "keynote" speakers (presumably expected to render audible an elusive sense of harmony). Visual representation has however tended to be downplayed in many such formal contexts. But many of the associated contexts may deliberately highlight a visual dimension without offering any cognitive association to strategy under discussion. More curious is the possibility that "envisaging" a sustainable future may in fact require a degree of "eye-mortality".

The role of touch is obvious in the protocols of greeting outside the formal dialogue in which bonding may be stressed through handshakes and arms-over-shoulders, notably in photo-opportunities. Taste, in its gustatory sense, is typically excluded from meeting environments -- possibly modestly reduced to water and tea. By contrast no expense is typically spared to enchant the pallet in the drinks and food offered at receptions. There is no sense that the variety of foodstuffs is of potential cognitive significance to the strategic challenge of the event.

Similar arguments might be made with respect to odour. It is only in religious ceremonies that attention may be given to the place of

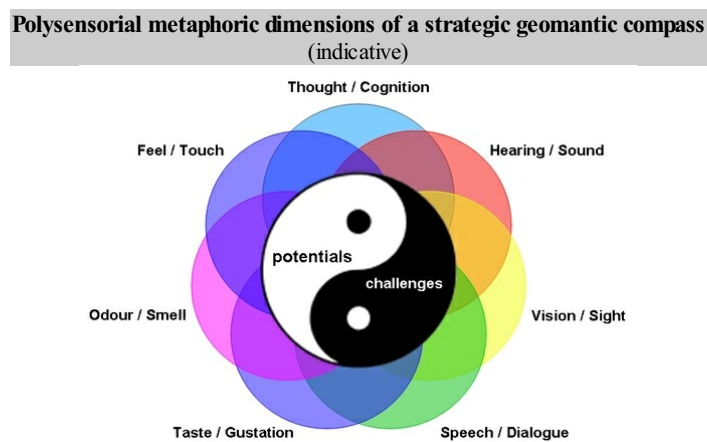
odour -- although increasingly this is seen as significant (via air conditioning systems) to marketing hotels and shopping environments and their associated patterns of consumption.

In the case of sound, whilst sophisticated technology may be used to ensure communication between participants within meeting sessions, and to a lesser degree between them, the range of sound content otherwise considered meaningful is only presented in accompanying music (possibly with singers) to receptions or special shows. Song may be considered part of the bonding process between participants in such settings -- but not in the meeting itself. Again the potential cognitive significance of this enriched mode is not considered for the development of strategy at the event, as discussed elsewhere (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006). The long-term implications for polysensorial integration into governance processes have also been speculatively explored (*Aesthetics of Governance in the Year 2490*, 1990).

Problematic "cognitive odour": A further concern in practice is that strategy development may be cognitively challenged by a metaphorical body odour that alienates those who might otherwise most fruitfully contribute (*Epistemological Challenge of Cognitive Body Odour: exploring the underside of dialogue*, 2006). One consequence is that strategies, as developed, do not necessarily "smell right" to many -- whether or not this is due to ignoring the presence of an odourous elephant in the living room.

Towards a "geomantic compass" for strategic *feng shui*?

Susantha Goonatilake (*Toward a Global Science: mining civilizational knowledge*, 1999) has argued the case for the exploration of the metaphor of non-western civilizations, as discussed elsewhere (*Enhancing the Quality of Knowing through Integration of East-West metaphors*, 2000). In the spirit of those arguments, the above table might be reformatted as follows.



As a purely indicative diagram, it is of course far simpler than the cognitive complexity integrated into the geomantic compass (*feng shui* compass) or *luopan* traditionally used in the *feng shui* practices of Chinese culture.

Of relevance in any strategic context is that, like a conventional compass, a *luopan* is a direction finder. The challenge in strategic development is arguably precisely that, namely to determine a direction for socio-economic development. In traditional use, the practice of *feng shui* is notably employed in choosing a place to live and arranging that location appropriately. Arguably again, **the challenge of current understandings of strategy is that of enabling the decision processes with regard to the making of such a choice -- for humanity as a whole.**

Strategic landscape and knowledge cybernetics

With regard to locating such a "place to live", this might be understood as a generalization of the architectural and planning arguments of Christopher Alexander (*A Pattern Language: Towns, Buildings, Construction*, Oxford University Press, 1977) regarding a subtle exploration of the quality of a "good place to be", notably as explored elsewhere (*5-fold Pattern Language*, 1984). As noted by Alexander (*The Timeless Way of Building*, 1979, p. x):

There is a central quality which is the root criterion of life and spirit in a man, a town, a building, or a wilderness. This quality is objective and precise, but it cannot be named. The search we make for this quality, in our own lives, is the central search of any person, and the crux of any individual person's story. It is the search for those moments when we are most alive...

To the extent they are alive, they let our inner forces loose, and set us free; but when they are dead, they keep us locked in inner conflict. The more living patterns there are in a place... the more it comes to life as an entirety, the more it glows, the more it has that self-maintaining fire which is the quality without a name.

The interface to Chinese cognitive frameworks, notably in terms of *feng shui*, has been extensively explored in relation to knowledge cybernetics by Maurice Yolles and Zude Ye (*From Knowledge Cybernetics to Feng Shui*, 2005; *Taoist Viable Systems*, International Society for the Systems Sciences Conference, 2005; *Cybernetics of Tao*, submitted to *Kybernetes*, 2008). They argue in the latter paper, essentially linking to the spatial sense of Alexander:

In setting up a *feng shui* schema we could adopt a variable called landscape. It has dichotomous energy states that can also be

modelled as opposing and interactive (*yin-yang*) forces, which in practice determine the resulting qualitative energy level of the variable. These forces are normally expressed in terms of a dragon metaphor, when the mountain and water dragons are used. The traditional Tao requirement is for the two dragons to interact over a given landscape, and as a result a balanced landscape state arises, referred to as the landscape dragon. These dragons are code for the conceptual *qi* forces that emerge from the urban landscape structure. The mountain and water dragons can become one when they find harmony together, and when this occurs they are spontaneously manifested into the planes dragon.

Although the authors do not make any explicit reference to the *feng shui* compass, they do however refer to a compass in the following terms in relation to measurement of *feng shui*:

Also in *feng shui* landscape dimensions can also be created through more complex dimensions in the archetypical schema created from the octadic trigram called *Bagua*. The dimensions of the octal are fundamentally the 8 symmetric points of the compass to define a landscape in terms of space-time energy changes. More complexity is introduced by relating this octal to the five elements archetype, which creates a context for additional metaphorical representations are made in areas that relate to wealth, fame, love, family/health, education, career, and three types of luck. All of these approaches come together to contribute to the overall measuring process in *feng shui*, and this can therefore be used as a means by which landscapes can be related to personal fortune. It is this particular aspect that some scientists are sceptical about.

Possibilities of facilitating exploration of such traditional metaphors, and their inherent dynamic, have been explored elsewhere (*Animation of Classical BaGua Arrangements: a dynamic representation of Neti Neti*, 2008; *Dynamic Exploration of Value Configurations: interrelating traditional cultural symbols through animation*, 2008).

Thinking "Hats" and Action "Shoes"

The presentation of the indicative "strategic compass" above is reminiscent, if only mnemonically through its use of colour, of the widely publicized strategic tools elaborated by Edward de Bono (*Six Thinking Hats*, 1985; *Six Action Shoes*, 1991; *Six Value Medals*, 2005; *Six Frames: for thinking about information*, 2008).

The first tool, combined with his idea of [parallel thinking](#) to which it responds, provides a means for groups to think together more effectively, and a means to plan thinking processes in a detailed and cohesive way. It is in this sense that the toolset might be said to function like a geomantic compass through which strategic direction is dynamically determined through dialogue in concrete situations.

In practice the "hats", for example, are specified cognitive modalities acknowledged in a group process -- avoiding the dysfunctionality of parallel thinking in separate and unintegrated modalities. Participants can then successively -- using each "hat" -- together consider the problems, or the benefits, or the facts, reducing distractions and supporting cross pollination of thought. This is achieved because everyone will put on the "white hat" together, then they will all put on the next "hat" together.

The six cognitive modalities identified are:

- Neutrality (white): considering purely what information is available, what are the facts?
- Feeling (Red): instinctive gut reaction or statements of emotional feeling (but not any justification)
- Negative judgement (Black): logic applied to identifying flaws or barriers, seeking mismatch
- Positive Judgement (Yellow): logic applied to identifying benefits, seeking harmony
- Creative thinking (Green): statements of provocation and investigation, seeing where a thought goes
- Process control (Blue): thinking about thinking

Different combinations of hats may be used for different strategic purposes. An analogous logic applies to his advocated use of "shoes" and "medals". It is appropriate to explore how the approach to challenges like climate change is framed through such methods. For example, the [Carbon Challenge Academy](#) held an interactive open forum (Malta, 2008) focusing on 'Creating an Innovative Product in view of Climate Change awareness' which encouraged participants to use the six thinking hats.

The question is how the cognitive methodology of "hats" or "shoes" might be extended to polysensorial approaches to strategic development. Alternatively, it might be asked whether, the "hats" are not individually associated, if only implicitly, with the range of modalities associated with the spectrum of senses.

Further to the argument for integrating Eastern and Western metaphors, it has been suggested elsewhere (*Navigating Alternative Conceptual Realities: clues to the dynamics of enacting new paradigms through movement*, 2000), that the sets of cognitive modalities recognized in certain spiritual traditions are indicative of ways of orienting in complex cognitive spaces. The strategic space in which humanity is endeavouring to navigate might be fruitfully explored in that light. Such considerations might be creatively "confronted" with those of the "hats", "shoes" and "medals". It is of course the case that a number of such traditions represent the challenge of integrating these various modalities through centro-symmetric diagrams of which [mandalas](#) and [yantras](#) are typical examples. They could indeed be understood as forms of geomantic compasses adapted to the navigation of cognitive landscapes.

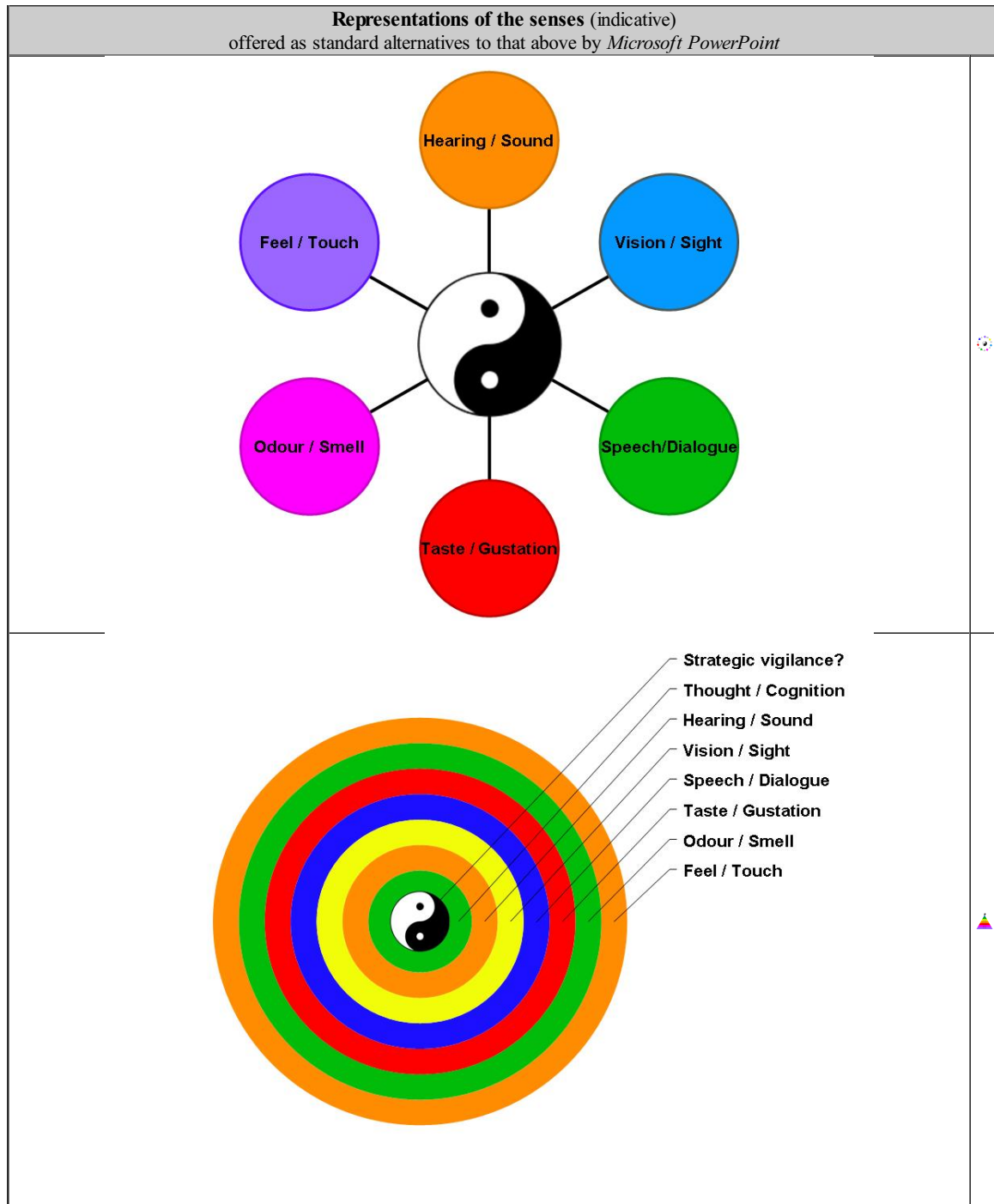
Coherent representation of cognitive modalities

The centro-symmetric diagram above is of course distinct from the geometry of traditional geomantic compasses typically based on many concentric circles each holding different sets of cognitively significant symbols. It is however appropriate to be conscious of the variety of alternative methods of representing the kinds of complexity presented in the diagram above -- recognizing the role of

applications like *Microsoft PowerPoint* (or its equivalents) in providing ways of organizing strategic thinking. It is appropriate to argue however that *PowerPoint* might be said to be the dominant western counterpart to the geomantic compass -- ironically even to the degree of also highlighting "points of power" that are otherwise undetectable.

Clearly, although convenient tools, the displays offered have poorly explored implications for strategic reinforcement -- notably through their widespread acceptance of "bullet points". A well-articulated criticism is that of Edward R. Tufte (*The Cognitive Style of PowerPoint: pitching out corrupts within; PowerPoint Does Rocket Science--and Better Techniques for Technical Reports; PowerPoint Is Evil: power corrupts, PowerPoint corrupts absolutely, Wired, September 2003*).

The cognitive issue is what kinds of strategic potentials or biases are reinforced by the possibilities of such alternatives. Of particular interest are the questions raised with respect to polysensorial challenges when the above diagram is switched (as the software permits) from the *Venn diagram* format used above into the alternative configurations indicated below.



There are constraints in *PowerPoint* in switching between such alternatives. The **colour allocation is arbitrary** in the above, as is the order. **No effort has been made to reconcile the representations.** Clearly the order may be variously interpreted as having certain (socio-political and philosophical) implications and reinforcing certain (possibly unacceptable) biases. For example:

- **pyramid configuration:** exemplifying dominance hierarchies. The use in [Maslow's hierarchy of needs](#) can be fruitfully challenged.
- **target configuration:** exemplifying linear goal-seeking behaviour, notably as characteristic of conventional military and business strategy, which may be questionable in relation to less exploitative, non-linear environmental considerations
- **radial configuration:** exemplifying centre-periphery relations typical of imperial, unipolar systems of organization

- **cyclic configuration:** exemplifying continuous cybernetic processes, possibly to be challenged by any need for a concrete focus
- **Venn configuration:** exemplifying multi-polar organization, typically challenged by unipolar approaches

The contrasting geometry of these configurations is reminiscent of the four (or five) socio-cultural/epistemological mindscope distinctions of Magoroh Maruyama (*Mindscales, social patterns and future development of scientific theory types*. *Cybernetica*, 1980), notably as **extensively explicated** by David M. Boje (2006) and Michael Caley (*Mindscales: the epistemology of Magoroh Maruyama*, 1994) by :

- **H-mindscape** (homogenistic, hierarchical, classificational): Parts are subordinated to the whole, with subcategories neatly grouped into supercategories. The strongest, or the majority, dominate at the expense of the weak (whether values, policies, problems, priorities, etc). Logic is deductive and axiomatic demanding sequential reasoning. Cause-effect relations may be deterministic or probabilistic.
- **I-mindscape** (heterogenistic, individualistic, random): Only individuals are real, even when aggregated into society. Emphasis on self-sufficiency, independence and individual values. Design favours the random, the capricious and the unexpected. Scheduling and planning are to be avoided. Non-random events are improbable. Each question has its own answer; there are no universal principles.
- **S-mindscape** (heterogenistic, interactive, homeostatic): Society consists of heterogeneous individuals who interact non-hierarchically to mutual advantages. Mutual dependency. Differences are desirable and contribute to the harmony of the whole. Maintenance of the natural equilibrium. Values are interrelated and cannot be rank-ordered. Avoidance of repetition. Causal loops. Categories not mutually exclusive. Objectivity is less useful than "cross-subjectivity" or multiple viewpoints. Meaning is context dependent.
- **G-mindscape** (heterogenistic, interactive, morphogenetic): Heterogeneous individuals interact non-hierarchically for mutual benefit, generating new patterns and harmony. Nature in continually changing requiring allowance for change. Values interact to generate new values and meanings. Values of deliberate (anticipatory) incompleteness. Causal loops. Multiple evolving meanings.

The relation of this approach to that of the [Myers-Briggs MBTI typology](#) is the subject of a detailed comment by David M. Boje (*Mindscape Theory and the Myers-Briggs*, 2006).

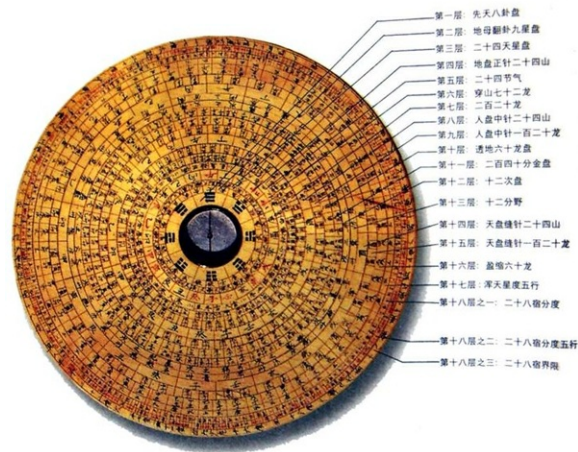
In addition to the initiative of Edward de Bono, it is appropriate to note other efforts to reconcile colour with cognitive and operational dispositions (Paul Evering, *Creating Whole Organization Synergy: the Eidetic Reference Book*, 2000; Max Lüscher, *Lüscher Color Test*, 1990).

Whilst clarifying any such distinctions is clearly of value, the emphasis in this exploration is on the greater value of indicating possibilities and alternatives and the facility for shifting between them in response to circumstances and personal preferences. It is **excessive attachment to a particular colour coding, ordering or geometry that is most problematic when the need is for the interactive ability to choose** -- to make design choices -- and learn thereby. The number of "senses", like the number of intelligences, may be collapsed to 4 or expanded to 8 (say) -- smell and taste may be cognitively conflated, for example, or "cognition" may be omitted from the set, whatever "subunderstanding" such omissions may be (later) held to imply.

However, as with the number of gears in a vehicle, these may vary according to the purpose of the vehicle and the preferences of the owner. More appropriate than the metaphor of a cognitive gearbox is perhaps that of a **musical tuning system** through which a particular number of notes are distinguished -- thereby enabling different forms of music. This approach bypasses the infighting regarding "correspondences" that is so characteristic of different schools of thought (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007). It recognizes that a particular pattern of distinctions is not "written in stone" as an absolutely relevant strategic truth -- especially if an individual or a group lacks a given sense or has no experience of it.

Hence the advantage of the *PowerPoint* facility which however highlights the possibility of geometries and orders that it does not facilitate. In this respect it will be interesting to see whether future pressure from a Chinese cultural perspective will not oblige applications to offer facilities that would enable the complexities of the *luopan* to be portrayed as one alternative. Also of interest is the possibility of using three-dimensional polyhedral alternatives to embody requisite complexity, and switching between 2D and 3D representations, as highlighted elsewhere (*In Quest of a Strategic Pattern Language: a new architecture of values*, 2008; *Polyhedral Pattern Language: software facilitation of emergence, representation and transformation of psycho-social organization*, 2008).

Example of a traditional Chinese geomantic compass (*luopan*)
(reproduced from [Luopan](#), *Wikipedia*)



Symbolizing the cognitive mode of sustainability

The use and positioning of the [symbol of the Tao](#), used in the variants above to indicate a degree of strategic polysensorial meta-cognition, is of course subject to question. It is appropriate to note that the elusive "sustainability" that is the quest of strategic development, notably as it is framed in the West, has not been associated with any particular symbol (in contrast with recycling). Ironically however, from a Chinese philosophical perspective, the symbol of the Tao might indeed be understood as symbolizing such sustainability. Understood in this way, placement of the symbol in any of the above configurations is then effectively positioning the cognitive mode that balances the dynamics implicit in sustainability -- as comprehended through the array of senses.

The "elephant" that the polysensorial approach might bring into focus would then be appropriately associated with that symbol -- as it had figured in the original Buddhist use of the tale of the "7 blind men".

A fruitful alternative to the symbol of the Tao in the above configurations might be a question mark -- given its meta-cognitive implication in that context. (Curiously, by combining the [conventional question mark](#) with the [inverted version](#) used in Spanish script, the resulting symbol bears a strong relation to the symbol of the Tao).

Each "sense" in a polysensorial mode is indeed suggestive of a strategic question, challenge or sensitivity. A case can be made for associating the senses with different styles of question as implied by the set of WH-questions and discussed elsewhere (*Cognitive Feel for Cognitive Catastrophes: question conformity*, 2006; *Conformality of 7 WH-questions to 7 Elementary Catastrophes: an exploration of potential psychosocial implications*, 2006).

Embodiment of complexity

The transformation of a western-style matrix -- typically used in mono-sensorial strategic development based on metaphors of "vision" -- into the centro-symmetric style above, may assist in embodying the other senses on which navigation is based in the real world. It may also open an interface with other cultural perspectives on the challenge of finding a direction for humanity as a whole.

The transformation of the tabular matrix, and the simplistic nature of the result, obscures more complex arguments whereby the centro-symmetric form is better considered as a projection into two dimensions of a more complex configuration appropriate to psychosocial engagement with such diagrams, as argued elsewhere (*Comprehension of Requisite Variety for Sustainable Psychosocial Dynamics: transforming a matrix classification onto intertwined tori*, 2006; *Topology of Valuing: psychodynamics of collective engagement with polyhedral value configurations*, 2008).

Such complexity has of course been explored, if only through structurally related metaphor, in a number of classic Chinese texts (*Hyperspace Clues to the Psychology of the Pattern that Connects -- in the light of the 81 Tao Te Ching insights*, 2003; *9-fold Higher Order Patterning of Tao Te Ching Insights Possibilities in the mathematics of magic squares, cubes and hypercubes*, 2003).

Given the arguments of ecophilosophers (David Abram, *The Spell of the Sensuous: perception and language in a more-than-human world*, 1997; Henryk Skolimowski, *The Participatory Mind: a new theory of knowledge and of the universe*, 1995; Andy Fisher and David Abram, *Radical Ecopsychology*, 2002), one question is how an individual can cognitively engage with the environment in ways that are conventionally precluded but may prove to have strategic implications (*Psychology of Sustainability: Embodying cyclic environmental processes*, 2002; *Emergence of Cyclical Psycho-social Identity: sustainability as "psychically" defined*, 2007).

Consonant with such understanding, the [Montessori](#) schools make use of "sensorial materials" that help the child develop his or her 5 senses. The materials are designed to help the child refine tactile, visual, auditory, olfactory, and gustatory senses. It is appropriate to note the creation of a chart by Chromosome22 (*Polysensory Chart: Alternative Classifications for the Senses and their Integrative Features*, 2003).

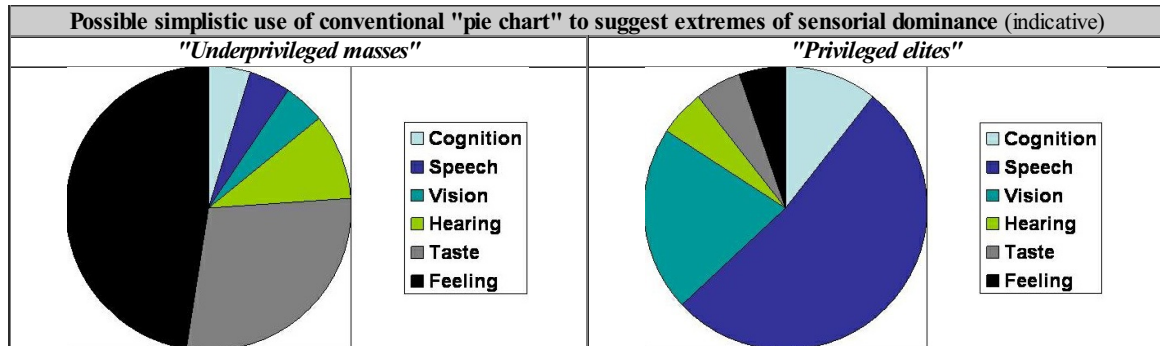
Quest for strategic synaesthesia?

The arguments above suggest that "polysensorial knowledge" may be intimately related cognitively to what is understood by [synaesthesia](#), namely the neurologically based phenomenon in which stimulation of one sensory or cognitive pathway leads to automatic, involuntary experiences in a second sensory or cognitive pathway. It has been emphasized that synaesthesia is not a psychic anomaly by B. Galeyev

(*Synaesthesia is not a psychic anomaly but a form of non-verbal thinking*, 1999).

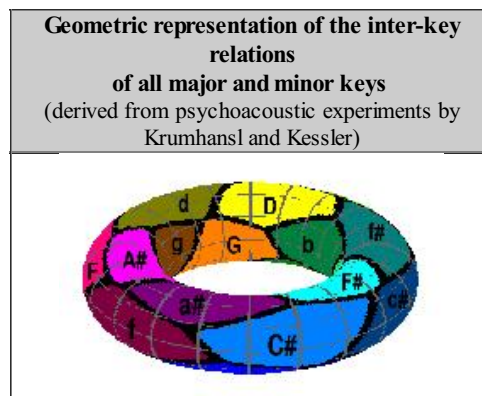
Curiously the explorations of neuromarketing would appear to be moving in that direction in that marketing of a product or service is then most successful when memory of it is triggered through mnemonic triggers across the senses: fragrance, triggers sound, triggers colour, etc. The product is remembered as a polysensorial "focus" of a kind of interference pattern between the senses.

In addition to the configurations used above, the standard pie chart offers a means of highlighting the communication challenge with respect to collective strategic articulation, credibility and implementation between the modalities of leadership elites and the electorate at large -- an indication of the distribution of the "slices of the sensorial pie" in these extreme cases. That with respect to the elites indicates the possibility of a dominant "vision-speech complex".

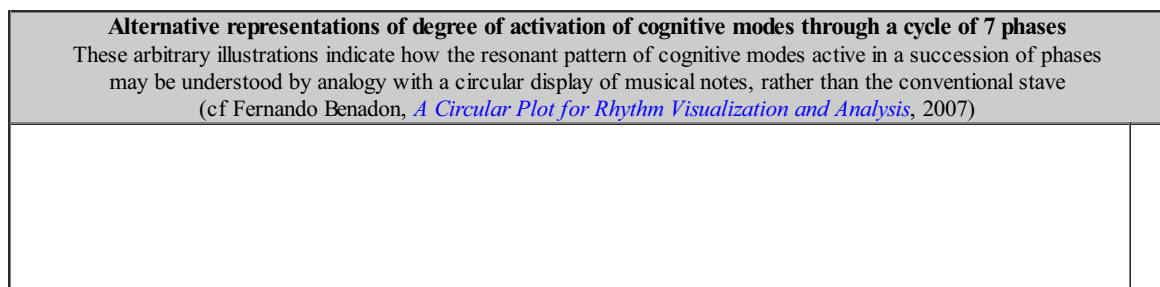


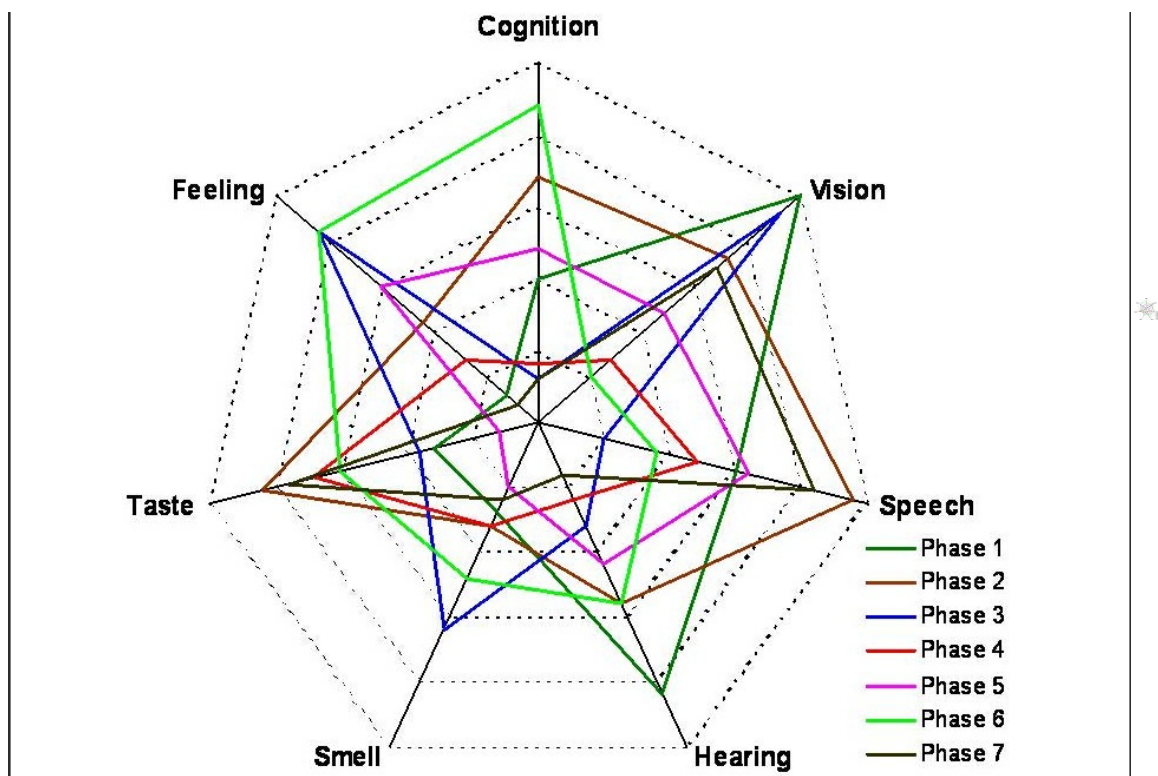
Of much greater interest is to consider the manner in which the sensorial organization of each sense (independently) might be represented on a more complex surface, possibly a sphere or a torus for convenience of discussion. In that respect it is appropriate to note, for example:

- **vision (colour):** the [Munsell colour system](#), lending itself to representation as a colour sphere, specifies colours based on the three dimensions of hue, value (lightness), and chroma (colour purity or colorfulness). Because of its basis in human visual perception, the system continues to be used even though it has been superseded for some uses by [other multi-dimensional models](#) that do not stress a spherical organization models.
- **sound (music):** the torus may be used as a representation of harmonic space. A piece of music moves around in this space [\[more\]](#). The results of psychoacoustic experiments by C L Krumhansl and E J Kessler (*Tracing the dynamic changes in perceived tonal organization in a spatial representation of musical keys*, Psychological Review 89(4), 1982, pp. 334-368) of the inter-key relations of all major and minor keys can be represented geometrically on a torus -- as shown by Benjamin Blankertz, Hendrik Purwins and Klaus Obermayer (*Constant Q Profiles and Toroidal Models of Inter-Key Relations -- ToMIR*, 1999) in the following image



With such examples, it might be hypothesized that the organization of each sense could be represented on isomorphic geometric surfaces such that the distinct modes of experience so ordered could potentially be mapped into each other -- namely that the "retinoid system" of Trehub may well be found in an analogous form for the other senses, as an "olfactoroid system", an "auditoroid system", etc. (as suggested by Robert Daoust). The relationship between these systems might then be understood, especially under conditions of synaesthesia, as functioning like a [resonance hybrid](#) -- such that the emergent order of the whole was potentially of greater stability than that of the systems separately.





It is within such framings that any static understanding of *feng shui* requires reframing in terms of the "dragons" of knowledge cybernetics as indicated by Maurice Yolles and Ye Zude (2005). The strategic requirement might then be explained metaphorically in terms of "dancing with dragons". This might however be rendered more concretely in terms of "operacy" -- identified by Edward de Bono as the most valued operational capacity, namely the skills of "making things happen".

It is most probable, as highlighted by Susantha Goonatilake (1999), that Asian cultures, notably those of China, Japan and India, will explore such possibilities in relation to strategic development -- especially given their receptivity to strategic classics (*Book of Five Rings*; Gao Yuan, *Lure the Tiger Out of the Mountains: the 36 stratagems of ancient China*, 1991). It is possible that such mindsets may offer vital integrative insights to complement the more fragmented approach that currently dominates strategic thinking, as suggested by the study of A C Graham (*Yin-Yang and the Nature of Correlative Thinking*. The Institute of East Asian Philosophies, 1986).

Cognitive "opening" and "closing" of strategic pathways

Many authors frame their strategic recommendations for the future in terms of "ways" forward (eg Peter Ellyard, *Designing 2050: pathways to sustainable prosperity on spaceship earth*, 2008; Felix Dodds (Ed.), *The Way Forward: beyond Agenda 21*, Earthscan, 1997; Edward Goldsmith, *The Way: an ecological world view*, 1992; Homa Motamen-Scobie, *European Monetary Union: the way forward*, 1998; Parliament of the World's Religions, *Pathways to Peace: the wisdom of listening, the power of commitment*, 2004).

In a knowledge based society it is appropriate to "re-cognize" how these ways are engendered and comprehended as viable within the polysensorial world -- now acknowledged by neuromarketing. Especially problematic, as evident in religious or scientific fundamentalism, is the exclusive attachment to particular "ways" and "modes of knowing" -- implicitly or explicitly deprecating (or demonizing) alternative ways. In this respect, a "way" corresponds to a significant degree to a "sense" of direction, especially in times when there is no "sense of direction" (and there are calls for leadership to provide it). This is appropriately to be compared with understandings of the "sense of a meeting", notably as valued for collective decision-making by Quakers.

The challenge in this context may be variously expressed as avoiding permanent closure within an essentially open system -- in the light of the emphasis articulated by Hilary Lawson (*Closure: a story of everything*, 2001). For an information society, a fruitful case has been made for a dynamic approach to this challenge by Orrin Klapp (*Opening and Closing: strategies of information adaptation in society*, 1978) -- making comparisons with the adaptability of the iris in relation to the sense of vision. The concern has been otherwise expressed by Paul Feyerabend (*Conquest of Abundance: a tale of abstraction versus the richness of being*, 1999)..... and by other authors variously concerned with unfruitful loss of "abundance" ***

Given the manner in which strategic pathways are typically articulated in vision-speech-text mode, a fundamental issue is whether a polysensorial approach to a knowledge society calls for a more subtle, self-reflexive method of indicating and distinguishing "ways" -- to avoid premature or inappropriate cognitive lock-in (*groupthink*, *silos thinking*, etc). In other words, **in how many "ways" ("senses") can understandings of strategic alternatives be embodied in a "closed" coding scheme that effectively exemplifies non-closure -- namely a scheme that paradoxically offers security against closure.** It is a scheme with such curious characteristics that offers a guarantee of requisite variety within the dynamics of the meta-pattern that connects -- the central thesis formulated by Gregory Bateson (*Mind and Nature; a necessary unity*, 1979):

The pattern which connects is a meta-pattern. It is a pattern of patterns. It is that meta-pattern which defines the vast generalization that, indeed, it is patterns which connect. (p. 11).

And it is in this connection that he warns -- with implications for any appropriately viable strategy development:

Break the pattern which connects the items of learning and you necessarily destroy all quality. (p. 8).

In the spirit of explorations of the calculus of indications ([George Spencer-Brown](#), *The Laws of Form*, 1969) regarding the making of [distinctions](#), it is a "self-reflexive coding scheme" -- effectively a form of self-mirroring coding -- that has been a preoccupation of various authors (Maturana ***.) But it is appropriate to note the multi-modal logical approach characteristic of Eastern cultures, formulated as a quadrilemma by Kinhide Mushakoji (*Global Issues and Interparadigmatic Dialogue*, 1988). This might be adapted as follows:

- Encoding significance A ("like-this")
- Encoding significance Not-A ("not-like-this")
- Encoding significance A-and-Not-A ("both like-this and not-like-this")
- Encoding significance Neither-A-nor-Not-A ("neither like-this nor not-like-this")

It is the last two modes, and the set as a whole, that are suggestive of further insight. Such an approach is well-recognized through the Sanskrit adage *Neti Neti* (Not this, Not that) which offers the most succinct description of a "cognitive dance" of requisite complexity.

[**** completion of this section in progress]

Conclusion

Given the extent of the western cultural deployment of binary logic over past decades, and the current socio-economic condition of global society, **can humanity afford to depend on a mono-sensorial approach to the strategic development of its future** -- when even marketing strategy now recognizes the value of a polysensorial approach?

Such [neuromarketing](#) would seem to be taking account of factors that conventional strategy neglects. As a methodology that studies consumers' sensorimotor, cognitive, and affective response to marketing stimuli, the question might be asked to what strategic "stimuli" do voters respond and how is this determined? The future may find it curious that democratic choices -- and election of leaders -- are supposedly made in response to articulations of "vision", through use of "speech", when market strategists have already recognized the limitations of this mode.

Is there a case for recognizing a kind of analogy to [Dwight Eisenhower](#)'s famous warning about the dangers of the insidious strategic approach of the [military-industrial complex](#) -- namely the as yet unrecognized dangers associated with a "vision-speech complex" in the conventional articulation of strategy? Or would that be the "vision-dialogue complex" that has been associated with so much hope-mongering (*Credibility Crunch engendered by Hope-mongering: "credit crunch" focus as symptom of a dangerous mindset*, 2008)?

Are the strategies currently on offer by the "vision-speech complex" simply "tasteless" -- as those who value the aesthetics of taste might claim? Do such strategies "smell right" -- as those with other sensibilities might question? Do they "sound right" -- as those who derive their sense of harmony and meaning from music might assert -- or are they as meaninglessly hollow as "[sounding brass](#)"? Or is it simply that they do not "feel right" or do not "touch the heart"? Expressed otherwise, how far is humanity from recognizing the vital role of aesthetics in governance, as explored speculatively elsewhere (*Aesthetics of Governance in the Year 2490*, 1990)?

Although it is obviously through the complete set of senses that individuals engage cognitively with the environment, this is less obvious in the case of communities -- as manifest in their strategic deliberations in exercises of collective intelligence. And yet it is through the latter that will be developed the response to the challenge of climate change -- a dramatic manifestation of the environment as a whole. The argument here points to the vital significance of a polysensorial strategic approach in order to engage effectively with the environment -- benefitting however from the correspondences between the cognitive modes and the characteristics of nature they best apprehend. Curiously such dynamic engagement -- learning to "dance with dragons" -- is being prefigured virtually, as argued elsewhere (*Playfully Changing the Prevailing Climate of Opinion: climate change as focal metaphor of effective global governance*, 2005).

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