Towards a University of Earth?

Exploring the cognitive entanglement between lifestyle diseases and planetary ills

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Crisis of crises
There is a sense at the global level of lurching from one crisis to another, with a degree of recognition of an emerging 'crisis of crises'. This was first noted decades ago by John Platt (What We Must Do, Science, 166, November 1969). The moment has apparently now been recognized by the UN Secretary-General Ban Ki-moon who recently declared:

We are living through an era like no other. There are multiple crises: a food crisis, fuel crisis, flu crisis and financial crisis... Each is a crisis we have not seen for many years, even generations. But this time they are hitting the world all at once. We have never seen any era when we have been hit by all these multiple crises at the one time... Peacekeeping has experienced serious setbacks. (United Nations peace missions in peril, The Guardian, 8 July 2009)

Such a crisis of crises is now mirrored at the individual level in the 'lifestyle timebomb' (Peter Gluckman, et al., 2008). By whoever this mirrored challenge is recognized, it is increasingly obvious that there is fundamental incapacity to respond to this condition in new ways. It would seem that institutions are cognitively incompetent in ways that they are 'constitutionally' incapable of understanding -- as in the case of a person suffering from a lifestyle disease.

Eliciting appropriate thinking
The question might be asked as to the nature of the space in which the challenges might be more appropriately explored. Where is the 'University of Earth'? If a case can be made for the reasons for the US strategic failure in Vietnam, in comparison with the wei-ch'i strategy of the Chinese at that time and more recently (Scott Boorman, 1971; Josh Kerbel, Thinking Straight: cognitive bias in the US debate over China, Studies in Intelligence, 2004), where are such alternative strategies explored?
A case has seemingly been well made for the value of indigenous knowledge to sustainability and survival by such as Darrell Posey (1999), by the various authors cited above, or more recently and strongly by Wade Davis (The Wayfinders: why ancient wisdom matters in the modern world, 2009).

Is there any indication that such knowledge is currently applied to international institutions or their strategies -- a wei-ch'i strategy for the United Nations (even with a Korean as its Secretary-General), or for UNESCO (even with a Japanese as its Director-General), or for the United Nations University (even though it is headquartered in Japan)? On the occasion of the UN Earth Summit (Rio de Janeiro, 1992), a gathering of traditional 'wisdom keepers' was indeed facilitated. However no trace of any such insights was evident in the follow-up UN Climate Change Conference (Copenhagen, 2009), despite the contribution to UNEP of Darrell Posey and colleagues (1999).

There have indeed been various gatherings of 'wisdom keepers', notably encouraged by the Earth Council Alliance -- itself emerging from the 1992 Earth Summit processes. A fundamental difficulty would seem to be a failure to recognize or transcend (despite claims to the contrary) the inadequate (dysfunctional) group processes associated with traditional wisdom keepers, group dynamic gurus, New Age enthusiasts, academic specialists, dialogue consultants, and the like. More generally, this pattern is evident in interfaith and transdisciplinary dialogue initiatives, despite their critical importance at this time. How are the dimensions of the trap to be discerned -- perhaps equivalent to enthusiastic initiatives to 'rearrange the deckchairs on the Titanic'.

'Standard Operating Procedures'

There is a sense that the cognitive engagement with more appropriate initiatives is undertaken through what amounts to 'Standard Operating Procedures' in a 'Standard Operating Environment' -- effectively putting 'new wine into old bottles' (Luke 5:37; Matthew 9:13). The question is whether innovation and radical innovation are possible within Standard Operating Environments. Is the nature of the new thinking possible adequate for emerging challenges to human ingenuity as identified by (Thomas Homer-Dixon, The Ingenuity Gap, 2000).

The initiatives become exercises in cognitive displacement by surrogates disassociated from the challenge -- a surrogate obscuring underlying issues. The dynamics of the climate change movement, culminating in Copenhagen and its Climategate, may be seen in these terms (Climate change used as a fig leaf -- to conceal a more challenging issue?: 2010).

These dynamics have been most peremptively analyzed by management cybernetician Stafford Beer (on Le Chatelier's Principle as applied to social systems. The cybernetic cytoblast - management itself):

Reformers, critics of institutions, consultants in innovation, people in short who "want to get something done", often fail to see this point. They cannot understand why their strictures, advice or demands do not result in effective change. They expect either to achieve a measure of success in their own terms or to be flung off the premises. But an ultra-stable system (like a social institution)... has no need to react in either of these ways. It specializes in equilibrial readjustment, which is to the observer a secret form of change requiring no actual alteration in the macro-systemic characteristics that he is trying to do something about." (Chairman's Address to the International Cybernetic Congress, September 1969)

However the uptake of Beer's own insights, as with those of R. Buckminster Fuller, have been constrained by intellectual copyright (Future Coping Strategies: beyond the constraints of proprietary metaphors, 1992). The situation might be presented as the contrast between uncritical indulgence in 'Standard Operating Procedures' and the requisite self-reflexivity and vigilance to respond to higher orders of twistedness.

The failure of 'Standard Operating Procedures' to engender viable responses to individual and planetary health is widely compensated by substance abuse. Hope, like opium in the past, might be seen as a menetic equivalent subject to abuse. It has its impoverished cultivators, exploitative traders and pushers, and its addicted consumers (Credibility Crunch engendered by Hope-mongering; 'credit crunch' focus as symptom of a dangerous mindset, 2008). Increasingly it is treated like an entheogen, namely as a psychoactive substance used ritually to engender inspiration.

In contrast to Standard Operating Procedures and Environments, within the alchemical metaphor (mentioned in the main paper), the container appropriate to transformation poses the cognitive challenge of a Klein bottle -- without distinction between inside and outside. Within that metaphor the question is the nature of the container capable of encompassing the 'universal solvent' (alkahest) -- namely any new paradigm ('new wine') capable of dissolving pre-existing cognitive structures ('old bottles'). Curiously this is equivalent to the challenge of containing plasma to achieve fusion in nuclear fusion reactors. In the latter case this takes the form of designing a tokamak container that ensures that the plasma has no contact with its walls, which would otherwise be destroyed. The insights relevant to thinking appropriate to psychosocial transformation through 'cognitive fusion' have been separately explored (Enactivating a Cognitive Fusion Reactor: imaginal transformation of energy resourcing (ITER-8), 2006).

Identity as a strange loop

Such concerns are implicit in the recognition of Douglas Hofstadter (I Am a Strange Loop, 2007). The loop in question -- in his concern with individual identity -- might be compared with the Mobius strip as a representation of the adaptive cycle (discussed in Annex A) as an expression of identity over time (Emergence of Cyclical Psycho-social Identity: sustainability as 'psyically' defined, 2007). This suggests that the identity and sustainability of the 'global system' -- with Gaia -- might also need to be understood as a 'strange loop'.

Identity in this sense may imply a degree of 'full on' engagement through processes possibly to be 'described' by terms such as cognitive entanglement, reflexivity or mirroring. Any degree of 'sub-engagement' then effectively enders objects, casting them into a dream or drama with other objects (cf Existential Embodiment of Externalities radical cognitive engagement with environmental categories and
It is in this sense that Enabling the cognitive vehicle quadrilemma, the governance challenge may be simultaneously a case procedure -- and design, embodiment and operation challenge of sustainability may in part be one of constructing a 'timeship' rather than a 'spaceship' (sustaining account by This suggests the merit of fictional exploration of temporal engagement in the adaptive cycle. A valuable example is the science fiction extent -- implying a degree of cognitive correspondence with the alternatives of the In such a temporal context, the 4 phases of the adaptive cycle might be fruitfully described as endeavouring to operate at a lower dimensionality.

Is Becoming the Pentagon's Mouthpiece for Propaganda

appropriately for an 'unconscious civilization' as described by John Ralston Saul (The Unconscious Civilization, 1995), it would appear to be training itself for the paradoxes of governing the adaptive cycle through the attractions of a Hollywood diet of 'rogue-government-agency' movies challenging simplistic assumptions about government authority and about the cognitive implications for traversing and transcending twistedness in the emerging context. Curiously the Pentagon appears supportive of such movies (Nick Turse, Hollywood Is Becoming the Pentagon's Mouthpiece for Propaganda, AlterNet, May 2008). By comparison, social change initiatives can only be described as endeavouring to operate at a lower dimensionality.

It is therefore intriguing to note the enablement of 'avatars' in interactive gaming and the fictional exploration in movies of the 'implication' of individuals in surrogates and avatars in the near future (Avatar, 2009; Surrogates, 2009). Whilst Avatar has indeed attracted extensive commentary on its reflection of human 'standard operating procedure' in response to challenges, Surrogates might be considered a more significant commentary on prevailing preferences for the cosmetic artificiality of human engagement with the environment through idealized identities. Its issues are consistent with the 'bright-siding' of Barbara Ehrenreich (Bright-sided: How the Relentless Promotion of Positive Thinking Has Undermined America, 2009) -- and what might be termed 'globallooning' (Globallooning -- Strategic Inflation of Expectations and Inconsequential Drift, 2009). As previously noted, such 'positive thinking' fails to recognize the 'unsaid' (Global Strategic Implications of the 'Unsaid', 2003; Being Positive Avoiding Negativity: management challenge of positive vs negative, 2005).

Converging preoccupations with time

It is intriguing that there is simultaneously an increasing concern regarding time as indicated by the following:

- fictional representations of the future, notably through science fiction and disaster scenarios
- a focus on various anticipated singularities, notably that of 2012
- a preoccupation with living the present (the 'now') in new ways
- anticipated resource constraints, associated with population overshoot
- a recognition of the atemporal or cyclic time characteristic of the sustainable lifestyles of many indigenous communities
- increasing pace of life and competition in time
- rapid reduction in size of viable messages of significance (aphorisms, joke punchlines, bumper stickers, Tweets, images)
- recognition of mortality and the quest for immortality

In such a temporal context, the 4 phases of the adaptive cycle might be fruitfully understood as manifesting simultaneously to some extent -- implying a degree of cognitive correspondence with the alternatives of the quadrilemma -- a form of temporal resonance hybrid. This suggests the merit of fictional exploration of temporal engagement in the adaptive cycle. A valuable example is the science fiction account by M. A. Foster (The Game Players of Zan, 1977). As discussed elsewhere with respect to imaginal education, vital to sustaining community 'renaissance' (Imaginal Education: game playing, science fiction, language, art and world-making, 2003), the challenge of sustainability may in part be one of constructing a 'timeship' rather than a 'spaceship' (Timeship: conception, technology, design, embodiment and operation, 2003; Embodying a Timeship vs. Empowering a Spaceship, 2003). In contrast to 'standard operating procedure' -- and rather than an Operating Manual for Spaceship Earth (as articulated by R. Buckminster Fuller) -- in terms of the quadrilemma, the governance challenge may be simultaneously a case of spaceship, timeship, both-spaceship-and-timeship, and neither-spaceship-nor-timeship.

Enabling the cognitive vehicle

It is in this sense that The Game Players of Zan provides an interesting account of the paradoxes involved in the "construction" of their space-time vessel.

Let me build a dynamic identification-series for you: consider vehicles. You make a cart, a wagon, hitch it to a pony, and off you go. Its purpose is to go, but it can be stopped, and it doesn't change, or stop being a cart...Now consider a bicycle, which must...
be in balance to go...Now an aircraft; it can only be stopped when it is finished being a functional airplane...You can't stop it just anywhere, and never in the air...Just so the leap to the Ship. It is a quantum leap into a new concept in machines, if indeed that is the proper word. Before, we had machines that could be turned off. The more complex they became, the harder to turn off. With the Ship we enter the concept-world of machines that can't be turned off -- at all. They must be on to exist. Once you reach a certain stage in the assembly of it, it's on and that's all there is to it. (pp 369-70)

It must be manually flown to hold it in place...Its position at a specific place upon the Earth is not held by gravity and momentum...that it stays in that place, it must be flown there. As we sit here, we move in many ways, but are held fast in a matrix of local forces. The Earth rotates...And if we do not compensate, then the Ship would drift off on its own. (p. 373)

Both planetary sustainability and personal health pose the challenge of metaphorically 'stepping into' a vehicle moving in space-time (and otherwise) -- with the requirement of simultaneously elaborating the construction of that vehicle and governing its movement. This is the essential nature of a living system and any associated intelligence. The prescriptions of 'Standard Operating Procedures' assume that this is not the case and therefore fail. The vehicle is thereby converted into a static memorial to a dynamic possibility.

The possible requirement for cognitive nimbleness of this kind, suggests that conventional approaches to 'save the world' gatherings might fruitfully be reframed as partially involving the creation and embodiment of the gathering as a mematic 'vehicle' capable of traversing time -- a timeship (Metaphors as Transdisciplinary Vehicles of the Future, 1991). This would contrast with the unmemorable characteristic of gatherings that disintegrate after a period of days (a 'spaceship' unable to fly, as with the UN Climate Change Conference). The gathering as a 're-membrance' is indeed a co-creation in the moment, rather than pre-scripted. How is this to be distinguished from action research? Why has this been inadequate to the needs of the times?

More intriguing is that engagement by any individual in such a process is also an act of creating and reframing identity in time -- consistent with Hofstadter's sense of being a 'strange loop'. Healing of lifestyle disease is presumably associated with this process -- traces of which are to be found in any creative act, effectively creating a 'personal timeship' to compensate for the temporal limitations of a 'personal spaceship' (skin as a container of identity).

Both sustainability and health would appear to call for a 'marriage' between the autopoietic processes through which they are engendered (and cultivated) and the mythopoetic processes through which they are rendered comprehensible as meaningful (strange) attractors. Avatar offers and example of the latter. Another has been explored in detail relevant to this argument (Relevance of Mythopoetic Insights to Global Challenges: cognitive integration implied by the Lord of the Rings, 2009).

Ironically the clarification of strategic nimbleness in such a marriage may to some extent be seen in the technical and mythical engagement of the bullfighter, with the movements of the cape usefully indicating the phases of the adaptive cycle (as experienced by the bull), notably with respect to the illusion of the nature of the challenge at any one time. With respect to 'Standard Operating Procedures', the metaphor may be variously explored with respect to the challenge of 'bull', especially when wrapped in bureaucratic 'red tape' (Viable Global Governance through Bullfighting: challenge of transcendence, 2009; Complementary Bullfighting Metaphors of Global Governance: challenge of asymmetric engagement, 2009; Transformation of Global Governance through Bullfighting: visual symbols and geometric metaphors, 2009). Use of the metaphor by US General Stanny McChrystal to describe the strategic situation in Afghanistan (US 'needs fresh Afghan strategy'; BBC News, 31 August 2009) has been widely reported.

Cognitive and process challenges

Where indeed is the 'University of Earth' to address these cognitive and process challenges? Possible criteria for such an initiative are explored elsewhere (see University of Earth: Documentary Resources). Possibilities have been articulated by Gregory Bateson with Mary Catherine Bateson (Angels Fear: towards an epistemology of the sacred, 1988). As explained by Peter Harries-Jones (A Recursive Vision: ecological understanding and Gregory Bateson, 1995)

Aesthetics provides a medium through which humanity can begin to understand the unity of the biosphere. Yet, when approaching unity and holism in the biosphere, our pragmatic, mechanistic civilization becomes overwhelmed by epistemological panic and does not know how to proceed. How then to overcome panic and pursue that "path where even angels fear to tread"? (p. 216)

Are 'Standard Operating Procedures' to be assumed to be 'crazy enough' to encompass the challenge of lifestyle diseases and planetary sustainability? Why is it that only physicists, typically funded in support of military agendas, have a 'licence' to be 'crazy' -- and a requirement to be 'crazy enough' (as instanced above)? The question is especially pertinent in that the quality of their thinking has yet to be fruitfully applied to psychosocial system dynamics and the challenge of their health (And When the Bombing Stops? territorial conflict as a challenge to mathematicians, 2000).

Arguably however, it is traditional communities who have elaborated any number of 'crazy' belief systems to enable them successively to survive sustainably through centuries, if not millennia (cf Wade Davis, 2009). Surely 'crazy enough'? Their 'licence' to do so was of course 'withdrawn', often violently and without compunction, at the instigation of Islam and Christianity (post-Galileo and pre-Dawkins). The surrogate preoccupation with 'biodiversity' is now set to obscure the loss of such knowledge, as argued by Wade Davis and Darrell Posey (1999), at a time when every effort is made (as with respect to climate change) to ensure that everyone 'sings from the same hymn sheet' -- ignoring the merit of cultural diversity..

A key self-reflexive theme, is why, tragically, pointers to the necessary cognitive preoccupations of a 'University of Earth' are primarily to be found articulated as issues of national strategic defence. For example, the following are recognized by Josh Kerbel (Thinking
Culturally embrace uncertainty
Emphasize the understanding of possibilities, not prediction
Utilize alternative scenarios/futures regularly as a methodological approach to problem-solving
Emphasize the explanations of the assumptions, key variables, and signposts for each scenario
 Resist the temptation to minimize analytical uncertainty by eliminating caveats
Try to avoid picking a single result in the face of significant uncertainty
Recognize that language both reflects and reinforces bias/mindset and consciously adopt more non-linear terminology and metaphors
Require all involved in the analysis to take a course in linear/non-linear thinking and dynamics
Make a concerted and serious effort to pursue the development of agent-based modelling, visualization, simulation and other advanced computer tools and techniques for exploring and explaining the dynamics of highly complex and non-linear systems

Would these change the nature of the much commented fictional intervention in Avatar -- any more than they appear to have contributed to reframing the new ‘hearts and minds’ strategy in Afghanistan? Such pointers are suggestive indicators of a degree of species maturity, but what might others be? (cf Self-reflective Embodiment of Transdisciplinary Integration (SETI) the universal criterion of species maturity? 2008; Stepping into, or through, the Mirror: embodying alternative scenario patterns, 2008; Cognitive Fusion through Myth and Symbol Making: archetypal dimensions, 2006; People as Stargates: an alternative perspective on human relationships in space-time, 1996).

Individual response to lifestyle disease presumably calls for equivalent self-reflexivity on the part of the sufferer.

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