**Freedom, Democracy, Justice: Isolated Nouns or Interwoven Verbs?**

Illusory quest for qualities and principles dynamically disguised

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**Introduction**

There is a key interpretation of the initial process described in the *Book of Genesis*, honoured by the three Abrahamic religions -- together so significant, through their pathetic interaction, in exacerbating the crises of the world. For the Christian religion, so influential in defining the "values" of the international community, that interpretation is:

In the beginning was the Word, and the Word was with God, and the Word was God. (John 1:1)

As what is assumed to be the originating value for human civilization, as currently framed, it might be asked to what extent that "Word" was an extremely subtle conflation of what are now distinguished as the eight parts of speech including noun and verb. Does this constitute an eightfold "syntactical speciation" with cognitive and epistemological implications?

The argument in what follows is that it has been too readily assumed that the higher values of global civilization are "nouns" when there is every possibility that they are primarily -- if not very significantly -- better characterized and comprehended by their dynamic nature as "verbs".

At a time when the Arab world is characterized by uprisings in the name of freedom, democracy and justice, the question is whether achieving them is possible through their conventional framing as nouns. The terms, much promoted in Christendom, may be tokens for a dynamic that is not readily acquired and possessed like any other tangible product. If the values are essentially dynamic rather than static, how are such elusive qualities to be embodied -- if they cannot be effectively "grasped" and "possessed"? Will failure to "grasp" them -- to "get" democracy, freedom and justice -- result in the kinds of frustration so evident in countries which are claimed to have "got" them already?

This concern follows from earlier work within the framework of the Human Values Project and with subsequent exploration of Human Values as Strange Attractors: Coevolution of classes of governance principles (1993). Emphasis was later placed on the psychology of engagement with values (In Quest of Engaging Values: context of the Human Values and Wisdom Project, 2008).

**Conventional indicators**
Much effort has been invested in establishing the degrees of freedom, justice and democracy in societies around the world. Indicators of current conditions of progress towards these ends, and the reports based upon them, are typically considered as intentionally provocative and controversial. This is naturally the case for those countries that are rated poorly by the standards of measurement defined.

Reports offering indicators that can be interpreted to this end include:

- **Human Development Report** (HDR) published annually by the United Nations Development Programme (UNDP)
- **Advancing Freedom and Democracy Reports** published annually by the US State Department
- **Freedom in the World** published as an annual survey by Freedom House
- **Democracy Index** published annually by the Economist Intelligence Unit
- **Global Peace Index (GPI)** measuring the relative peacefulness of nations and regions, produced by the Institute for Economics and Peace
- **Happy Planet Index (HPI)** of human well-being and environmental impact produced by the New Economics Foundation (NEF)
- **Country Reports on Human Rights Practices** in countries outside the USA, produced annually by the United States Department of State
- **World Report** published annually by Human Rights Watch, presenting an overview of the worldwide state of human rights.
- **Amnesty International Report: The State of the World's Human Rights** published annually by Amnesty International
- **Report on the World Social Situation (RWSS)** prepared on a biennial basis by the UN Division for Social Policy and Development of the Department of Economic and Social Affairs

These are variously a focus of criticism.

An earlier study questioned the assumption that such "performance indicators" in any way constituted an indication of "remedial capacity" if inadequacies were evident -- especially in relation to potential crises, as with overpopulation (*Remedial Capacity Indicators versus Performance Indicators*, 1981). This argument was later developed further (*Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity*, 2009).

### Measuring the readily measurable

The development of indicators that endeavour to measure intangibles such as democracy, justice and freedom follows from the extensive development of economic indicators allowing analysis of economic performance and predictions of future performance for the benefit of business. These focus on the tangibles of any economy and are vital to its responsive management.

Economists have been slow, and resistant, to consider factors that are less readily measurable. Typically these include externalities, namely costs or benefits, not transmitted through prices. Strikingly these factors have included unpaid "housework" as well as the productivity of the informal (black) economy within which so many are obliged to operate to some degree -- "betwixt and between" (*Living as an Imaginal Bridge between Worlds*, 2011).

A valuable distinction is made between:

- **negative externalities**, such as air pollution, anthropogenic climate change, systemic risk, overfishing, moral hazard, and waste disposal

- **positive externalities**: incidental benefits to the environment from economic activity (beekeeping, etc), subsequent development enabled by inventions, education inhibiting disruptive social activity

The question with regard to democracy, freedom and justice is whether they are effectively commodified within the economically biased context of society as it is currently conceived. Put briefly, to what extent can each be "bought":

- **democracy**: can be understood as being effectively bought through the capacity to buy votes, media time, opinion makers, or software manipulation of electronic voting, etc -- processes that have proven to be only too prevalent in "democratic" countries. To what extent has democracy become a media exercise in the manufacture of consent (Edward S. Herman and Noam Chomsky, *Manufacturing Consent: the political economy of the mass media*, 1988)?

- **freedom**: can be understood as bought through the payments made to "people smugglers" to move people to countries held to be characterized by "freedom", or by manipulation of opinion to persuade people that they already have the freedom to which they aspire. This is most notably evident with respect to freedom of choice -- ensuring inhibition of recognition of the choices which have been rendered inaccessible (*Framing the Global Future by Ignoring Alternatives*, 2009).

- **justice**: can be understood as readily bought through payments to the influential, to the judiciary, to ensure the silence of witnesses, and the like. Few would deny the capacity of the wealthy and influential to avoid exposure to justice.

However the question in what follows is whether what is bought constitutes the essential nature of the value by which people are inspired and for which they yearn. As with many more tangible products, is it the case that the commodity bought is a symbol or token of something more elusive? An old advertisement had as its value-based slogan: *Buy a Buick -- Something to Believe in.*

The fundamental nature of such values -- perhaps a "defining" criterion -- is then perhaps best recognized through the fact that they cannot be "bought". They are each in fact held to be "priceless", which is why they are so highly valued. The only sense in which they are "bought" is through the sacrifices by which they are acquired, defended and celebrated -- often associated with death, as is currently the case in the revolutions in the Arab world.
Such subtlety has been attentively explored in recent research on measurement of happiness -- as with efforts to measure Gross National Happiness. More conventional, but arguably of similar subtlety, is the nature of confidence as a "value" of such recently proven importance to the financial markets. In this case efforts are made to measure both consumer confidence and that of CEOs and corporate directors (Consumer Confidence Index; Global Consumer Confidence Monitor; Directors' Confidence Index; CEO Confidence Index; CEO Confidence Survey).

Of related interest is the Unisys Security Index -- a global social indicator regarding how safe consumers feel with respect to four key areas of security:

- National security - security and epidemics
- Financial security - bankcard fraud and ability to meet personal financial obligations
- Internet security - spam, virus and online financial transactions
- Personal security - physical risk and identity theft

**Values as nouns -- challenged by polarization?**

As noted above, it is readily assumed that values are nouns. They may be embodied in various ways in symbols, slogans, memorials, flags and images.

The use of nouns as identifying values was the focus of the above-mentioned Human Values Project within the framework of the Encyclopedia of World Problems and Human Potential. Of particular interest was the extent to which every strategy of the international community could be understood as implying a "constructive" value in terms of which it was undertaken. Similarly every problem perceived by the international community effectively implied a "destructive" value -- undermining expression of an implicit "constructive" value. Efforts were made to interrelate large databases of problems, strategies and values in this light.

The ambiguity of values -- through their multiple connotations, evident in any thesaurus -- was extensively explored to clarify the relationships. It was notably recognized that "constructive" values could have their problematic aspects, just as "destructive" values could have fruitful consequences under certain conditions. The results of this work highlighted complex networks of relationships between words implying value -- profiled as 960 "constructive values" and 1040 "destructive values". A form of order was provided experimentally by clustering these in terms of 225 "value polarities" -- namely polarities in terms of which "constructive" and "destructive" values could be grouped together as a means of resolving a degree of ambiguity.

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<thead>
<tr>
<th>Exercises in mapping complex sets of interrelated human values</th>
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<td>(from the Human Values Project)</td>
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<td><strong>Human value dilemmas</strong></td>
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<tr>
<td>(rendering of value polarities designed by Tomáš Fülöpp)</td>
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This connectivity in value networks then necessarily implied loops or cycles. These value loops were seen as underlying, or reinforcing, both loops interrelating perceived world problems and those loops interrelating the strategies proposed in response to them (Feedback
Values as verbs -- but of a higher order?

Again, as noted above, it is readily assumed that values are nouns -- one aspect or facet of an eightfold syntactical speciation by which the parts of speech are distinguished. In English these are:

1. **Noun**: a part of speech inflected for case, signifying a concrete or abstract entity
2. **Verb**: a part of speech without case inflection, but inflected for tense, person and number, signifying an activity or process performed or undergone
3. **Participle**: a part of speech sharing the features of the verb and the noun
4. **Interjection**: a part of speech expressing emotion alone
5. **Pronoun**: a part of speech substitutable for a noun and marked for person
6. **Preposition**: a part of speech placed before other words in composition and in syntax
7. **Adverb**: a part of speech without inflection, in modification of or in addition to a verb
8. **Conjunction**: a part of speech binding together the discourse and filling gaps in its interpretation

The question raised here is whether values are better understood as verbs. Should the reification of values be challenged as the projection of a dynamic complex into disparate static forms -- as nouns? Curiously the biblical phrase in the introduction (above) is variously translated to offer that implication, since "word" is commonly translated from the root "verbum".

"The question raised here is whether values are better understood as verbs. Should the reification of values be challenged as the projection of a dynamic complex into disparate static forms -- as nouns? Curiously the biblical phrase in the introduction (above) is variously translated to offer that implication, since "word" is commonly translated from the root "verbum".

A very extensive exploration of these issues is supplied by Anne Maret Varangu (Exploring Usage of the Word "Values": implications and opportunities for planning, 2006) who notes that "critical valuing", as advocated by Nietzsche, was variously adapted by John Stuart Mackenzie (The problem of moral instruction, International Journal of Ethics, 1908) and John Dewey (The problem of values, The Journal of Philosophy, Psychology and Scientific Methods, 1913) -- treating values as verbs, as with Lauter (2000).

An interesting challenge is then the nature of the verb implied by a value commonly named as a noun, as illustrated by the following table.

<table>
<thead>
<tr>
<th>Values as nouns</th>
<th>Values as verbs</th>
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<td>justice</td>
<td>prosecute, amnesty?</td>
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<tr>
<td>freedom</td>
<td>liberate</td>
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<tr>
<td>democracy</td>
<td>democratise</td>
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This suggests that whilst there are indeed verbs for the process of ensuring the initial ("post-revolutionary") expression of the value, it is less clear what are the verbs describing the continuing process of democracy or the continuing process of ensuring freedom -- as sustainable processes. This is especially interesting in the light of occasional arguments to the effect that it is a mistake to imagine that such values are permanently anchored in society once achieved. Rather, the argument goes, it is necessary to continue to fight for them to avoid entropic tendencies to revert to the condition in which the values were absent or inadequately manifest. A similar argument could be made with respect to the initial achievement of peace -- through verbs such as "reconcile" or "resolve" or even "pacify". What is the verb expressing the sustainable manifestation of peace thereafter -- as a value?

It is appropriate to note examples of recognition of how each of the above has already been recognized as a verb (if not legally appropriated as a slogan):

- democracy is a verb:
  - Seyoum Tesfaye: *Democracy is a Verb*, Asmarino Independent, 23 January 2010
  - Brodie Thomas: *Democracy is a Verb*, Gulf News, 28 February 2011
  - Mikva Challenge Grant Foundation, Inc., Chicago -- for whom a U.S. federal trademark registration was filed for "Democracy is a Verb" (trademark serial number #85162357)

- freedom is a verb:
  - Lois Goldrich: *Visiting rabbi: Freedom is a verb*, Jewish Standard, 29 March 2006
• justice is a verb:
  - Charlie Wiggins: *Law is a Noun, Justice is a Verb*, Facebook, 12 May 2010
    - Social justice is a verb (p. 113)
  - British Educational Research Association: *Critical approaches in qualitative educational research: social justice*
    - Social justice is a verb, that is, it is a dynamic state of affairs in that it never could never - be achieved once and for all. It is always subject to revision.

It would seem to be both extraordinary, and profoundly unwise, for a US-based organization with explicit Jewish associations to endeavour to seek exclusive legal rights for use of the insight "democracy is a verb" -- especially from the United States Patent and Trademark Office. This recalls controversial issues relating to *patenting of human genes*, effectively extended here into "meme patenting". From this perspective, could "democracy" itself become a US trademark -- through a worldwide branding exercise? A more effective way of undermining uptake of values in the Arab world would be difficult to conceive. The use of intellectual copyright as a means of inhibiting change and remedial strategies has been discussed separately (*Future Coping Strategies: beyond the constraints of proprietary metaphors*, 1992).

It is intriguing that the fundamental "carrier" of value within the economic system is named as a "currency", implying properties beyond those of a "graspable" token -- associated as it is with formal promises. Indeed funds are widely recognized as flowing and there is considerable concern with their associated "liquidity" (as during the recent financial crisis). This is consistent with the argument regarding "water logic" of Edward de Bono (*I Am Right, You Are Wrong: From This to the New Renaissance: From Rock Logic to Water Logic*, 1990). Water is necessarily less "graspable" than land, for example.

**Value chains, networks and cycles — from a business perspective**

**Economic values**: Business has appropriated and reframed "values" to emphasize their purely economic nature and relevance. Without economic value, a value is then effectively inferred to be non-existent. Arguably *democracy, justice* and *freedom* are not discernible as relevant from an economic and business perspective. This has currently been made blatantly obvious in the complicity of foreign state-supported businesses in Libya over recent decades, reinforced in the midst of the slaughter of civilians there by the recognition, noted by Terry Macalister (*Libya's oil exports cut as companies hedge their bets*, *The Guardian*, 3 March 2011) that:

> Oil companies are hedging their bets over who to back in Libya as the country descends further into chaos, leaving oilfields, pipelines and export terminals in the hands of different warring parties. The fighting has encouraged foreign energy groups to make tentative approaches to rebels holding key oil and gas assets, but they are anxious not to fall out with Colonel Gaddafi for fear he could still restore his autocracy.

It has been noted that the countries supplying the weapons used against the civilians include Italy, Germany, France and the UK -- all anxious to defend their business interests in Libya, presumably at any cost to human life.

**Value chain**: Importance is attached by business to the concept of a *value chain*. This is a chain of activities undertaken by a business. Products pass through all activities of the chain in order, and at each activity the product gains some value. The chain is then understood to give the products more *added value* than the sum of the individual activities. As a tool of strategic planning, application of the value chain analysis has been extended to whole supply chains and distribution networks. The *Supply-Chain Council* is a global trade consortium which groups over 700 member companies, governmental, academic, and consulting groups. It manages the *Supply-Chain Operations Reference (SCOR)*. A *Value Reference Model (VRM)*, developed by the Value Chain Group, offers an open source semantic dictionary for value chain management encompassing one unified reference framework representing the process domains of product development, customer relations and supply networks.

Of interest in this context is the distinction made between "added value" and "value added". The latter refers to "extra" features of an item of interest (product, service, person etc.) that go beyond the standard expectations and provide something "more" while adding little or nothing to its cost. Value-added features give competitive edges to companies with otherwise more expensive products.

**Value network**: Potentially more complex is the concept of a *value network*. As a business analysis perspective describing social and technical resources within and between businesses. The nodes in a value network represent people (or roles). The nodes are connected by interactions that represent tangible and intangible deliverables of financial value -- including knowledge.

**Hybrid value chains**: Curiously the non-business world has lagged in elaborating equivalent approaches to values of marginal economic significance. Articulation of such possibilities has tended to come from a business perspective -- extending the methodology to include "hybrid value chains", notably in recent conferences responding to the more evident challenges of corporate social responsibility (*Global Value Chains, CSR and New Social Movements. Multinational Companies, Global Value Chains and Social Regulation*). A case is made for value chains for development, for example.

**Value cycles**: It is intriguing that one application of economic indicators is the study of *business cycles*, namely economy-wide fluctuations in production or economic activity over several months or years. Most of these do not follow a mechanical or predictable periodic pattern. Engaging effectively with these cycles, to the extent that they can be recognized, is a major challenge for governance. Of related interest is the focus on confidence cycles (Rob Salmond, *Political Business Confidence Cycles: the political causes and effects of business confidence surveys*; Teresa Santero and Niels Westerlund, *Confidence Indicators and their Relationship to Changes in Economic Activity*, OECD Economics Department Working Papers, 1996). Con paper ****
The business framing of "value network" and "value chain" has encouraged an extension of the logic of their structural "geometry" into "value cycles" -- dynamically understood. This follows naturally from any systems perspective regarding environmental consideration of recycling of resources, including waste products (R. Roy and R. C. Whelan, Successful recycling through value-chain collaboration, Long Range Planning, 25, 4, August 1992, pp. 62-71). However the existing focus on the "recycling value chain" is primarily concerned with waste management rather than with any sense that all "value chains" imply "value networks" which, in turn, may imply "value cycles".

As in the case of the application of the "value chain" concept, this cyclic insight has been applied to development, as explained by Olivier Serrat (Value Cycles for Development Outcomes, Knowledge Solutions, July 2009):

> The value cycle is a conceptual framework depicting how organizations can build a continuous momentum for creating value. Importantly, it integrates internal (competitive advantage, and measures of organizational performance) and external (value proposition, customer perceived value, and market-based measures of performance).

### Essential dynamics of intangible values -- from a psychosocial perspective

Early suggestions (in video form) have been made with regard to a "social value cycle", notably as a feature of social networking -- as a way to understand and then more actively to manage social presence, both professional and personal. There are few references to the possibility of "social value chains" beyond those directly associated with business, possibly extended to social entrepreneurship. Under the heading Social will dominate innovation thinking in 2011 (4 January 2011), one blogger reviewing these possibilities makes the point:

> Social value chains really do need to have an increased focus to understand in design, scale, the critical value-adding points, the ability or inability toscale understanding and in the service criteria. Some years ago the value chain become a focus of business with the result seeing a dramatic productivity improvement in results and we need the same amount of dedicated focus on the social value chain and what are good and improved outcomes along it from these efforts..

Again the question here is the extent to which these understandings of "value" encompass what is valued in the case of democracy, freedom or justice -- or whether these are in fact fundamentally distorted through any lens of social entrepreneurship or corporate social responsibility associated with "social innovation". More intriguing is the question of the degree to which these values are only manifest through cycles and are individually characterized by the dynamics of cycles:

- **democracy**: as characterized by the alternation of authority between different configurations of stakeholders, rather than being identified with any one configuration. The emphasis is then on such dynamics of change and not on the dynamics of advocacy and argument between authority and opposition. Political science is notably attentive to the associated cycles but would be hard put to distinguish degrees of "democracy" in cyclic terms (rate of change, distinctions between coalitions, etc).

- **freedom**: as characterized by the ability to move in practice (whether physically or virtually) rather than in theory. Whilst incarceration may be a limit condition, effective restriction to a neighbourhood, a village or a country are merely relaxations of that constraint. An ability to travel the world (or the universe of worldviews) suggests another measure. However these measures contrast with the ability of jetsetters to move between hemispheres in response to weather conditions -- with a freedom characteristic of the annual migration of some birds (as with the "snowbird people"). Any such reference to the freedom with which the identity of certain animals is associated, highlights the distortion in comprehension reinforced by the mounting of animals for display in museums and other collections. The animal in stasis is not the entity embodied in patterns of movement, whether in local pursuit of food, a mate or in migration. Display of live animals whose movement is restricted in a zoo also obscures the identity of the animal moving freely through its natural environment. Such considerations apply equally to humans artificially restricted to urban surroundings which inhibit their capacity to express their identity. How are the cyclic patterns of such freedom to be measured?

- **justice**: as characterized by cycles of due process in response to a need for resolution of some form of imbalance. Again limit conditions may range from "lynch mob" action against somebody (possibly framed as a scapegoat) to forms of "poetic justice" where the imbalance is held to have been resolved by subsequent misfortune. Understood as a cyclic corrective mechanism however, "justice" is not simply a question of a particular settlement but rather of a continuing process of rebalancing or redistribution -- as is better recognized in the control of any complex process (a factory process, cooking, education, etc). The matter is further complicated by dynamic re-evaluation of "right" and "wrong" in terms of which a just outcome is sought.

## Values as systems -- each a nexus of verbs?

The appropriation of "value" from an economic perspective, and the successful application to business, has not resolved the many difficulties associated with psychosocial values, notably those upheld as "pillars" of social organization -- such as democracy, freedom and justice. It is extraordinary that it is so readily and uncritically assumed that the intangibility of values can be satisfactorily defined in legalese -- in sets of principles, perhaps explicitly named as "pillars" upholding institutions and society (Coherent Value Frameworks: pillar-ization, polarization and polyhedral frames of reference, 2008).

The concept of "value" -- as in "family values", "democratic values" or "liberal values" -- remains fraught with ambiguity resisting any definition that could guarantee avoidance of controversy. There is no attempt to define these "universally" as with "human rights". "Peace" offers the most striking example -- inviting multiple interpretations in practice, as with its converse ("aggression"). Such
differences in interpretation are evident in the fragmentation of "peace" initiatives -- exhibiting varying degrees of overt hostility to each other. Similar problems are evident in efforts to achieve consensus in arenas such as the World Social Forum -- in contrast with that achieved in the World Economic Forum.

Rather than a set of "pillars", with the constraining geometry that implies, it is potentially interesting to explore:

- values as the nexus of a set of verbs
- values as a nexus of axes of distinct orientations -- perhaps "axes of bias"
- values as a configuration of windows -- onto "worldviews"
- values as systems

These differently suggest that values could be fruitfully understood as being systemically defined by an interrelated set of verbs or distinct dynamics. This is intriguingly consistent with the extensive argument of R. Buckminster Fuller (Synergetics: explorations in the geometry of thinking, 1975). Generically understood, a minimum system of any kind is necessarily defined and sustainable only through the intersection of six circles -- interlocking to frame the simplest polyhedron, namely a tetrahedron. In his terms:

By tetrahedron, we mean the minimum thinkable set that would subdivide Universe and have interconnectedness where it comes back upon itself....The basic structural unit of physical Universe quantation tetrahedron has the fundamental prime number oneness....The tetrahedron is the first and simplest subdivision of Universe because it could not have an insideness and outsideness unless it had four vertices and six edges....With three positive edges and three negative edges, the tetrahedron provides a vectorial quantum module in conceptual array in which the right helix corresponds to the proton set (with electron and anti-neutrino) and the left helix corresponds to the neutron set (with positron and neutrino). The neutron group has a fundamental leftness and the proton group has a fundamental rightness. They are not mirror images. In the tetrahedron, the two groups interact integrally. The tetrahedron is a form of energy package. (p. 333)

This language raises the question as to how the dynamics of values are to understood as embodied in such a framework. A possible clue is offered by the thinking on value of Edward de Bono (The Six Value Medals: the essential tool for success in the 21st Century, 2005). Whilst his use of the medal metaphor may be understood as yet another essentially static value symbol, as an integrative complex the six medals might together be fruitfully recognized as Fuller's six intersecting circles. De Bono may then be understood as implying an integrative value system, which he defines as follows:

- **Gold Medal**: Gold is precious, and so are an organization's people. The gold medal asks, What matters to our people? How will this decision affect our people? Human values include pride, achievement, a sense of belonging, hope, trust, and growth.
- **Silver Medal**: Silver impacts the organization. What matters to the organization? What are our goals as a company, and how will a prospective action help us or hinder us in pursuit of these goals?
- **Steel Medal**: Steel must be as strong as possible. What are the implications for quality? How will the decision at hand impact the quality of what we do?
- **Glass Medal**: Glass can take the shape of many functional, often beautiful and colourful objects. The glass medal covers change, innovation, simplicity, and creativity. What can we do to foster creativity and innovation in our organization? What changes in products, services, or internal processes could we try out?
- **Wood Medal**: Wood spotlights ecology values in the broadest sense: nature, ambiance, community, political climate, etc. Who or what outside the organization might be affected by this? Is there a positive or negative impact if we take this road?
- **Brass Medal**: Brass looks like gold but is not. Brass medal values take into consideration appearances and perception, our image and reputation. How will this action be interpreted? What will people think?

As de Bono stresses in his various books, his metaphorical use of "hats", "shoes" and "medals" needs to be understood more generally -- as ways of thinking -- perhaps best summarized in his more recent argument (Six Frames For Thinking About Information, 2008). For these he uses geometrical metaphors:

- **Triangle frame**: purpose
- **Circle frame**: accuracy
- **Square frame**: point of view
- **Heart frame**: interest
- **Diamond frame**: value
- **Slab frame**: outcome

His articulation, as with Fuller's, distracts from the distinct thinking processes -- as verbs -- in order to provide forms through which the processes themselves are implied. More problematic however is the mode of cognition implied -- through which the requisite integration of the distinct modalities is ensured. This might then be understood as the elusive locus of integrative value. However it is de Bono's better known use of thinking "hats" (Six Thinking Hats, 1985) that recognizes the necessary complementarity between the modes.

It is the work of Arthur M. Young which stresses the need for a minimum of six observations to determine behaviour in the learning/action cycles of a controlled system (The Geometry of Meaning, 1976). These insights have been separately adapted (Typology of 12 complementary strategies essential to sustainable development, 1998; Characteristics of phases in 12-phase learning / action cycles, 1998). The distinctions he so fruitfully makes raise the question as to whether any argument for "verb" implies only a first differential (namely velocity), or a second (namely acceleration), or even movement of a higher order.

In the light of this argument, values such as **justice**, **freedom** and **democracy** could each be fruitfully understood as necessitating definition in terms of six interrelated modes of thinking -- as the nexus of six thinking cycles. Geometrically the elusive "locus" of value is then the common "virtual" centre of those circles. This is best understood as necessarily unoccupied by a geometric element such as a "point" -- labelled by a "noun" held to be descriptive of the value or principle.
Value-related arguments can be applied to the nature of the fundamental "currency" of human civilization (Primary Global Reserve Currency: the Con? Cognitive implications of a prefix for sustainable confidelity, 2011). Any reserve currency is then understood as the medium through which secondary currencies can be interchanged. It is therefore defined as the interlocking of such secondary currencies -- with that interweaving being appropriately understood as a "basket" of currencies. Again it should be stressed that such currencies are significantly understood in terms of flow metaphors.

*** dynamic confidelity -- 6 cycles

Values as emergent dynamics of complex systems

The implicit locus in geometrical terms can be related to the development of insights into complex system dynamics "governed" by strange attractors. This suggests that the subtlety of what is strangely "attractive" about values might be fruitfully explored in this light, as noted above (Human Values as Strange Attractors: Coevolution of classes of governance principles, 1993). Again this stresses that values are systemically defined -- dynamically.

Hector Sabelli (Non-linear dynamics as a dialectic logic. Proc. International Systems Society, 1995) notes that:

Standard logic neglects actions by reducing all verbs to the copula "to be", and further, interpreting "to be" in a static sense, although it is obviously possible to model mathematically other verbs via logical relations; action verbs may also be modeled by different types of catastrophes.

From a system dynamics perspective, an attractor is a set towards which a dynamical system evolves over time. This could be understood as offering the kind of description of the progressive convergence of any psychosocial system -- or civilization -- whose dynamics are effectively "guided" by an elusive value (complex), perhaps only to be recognized through hindsight (possibly in centuries to come). This language is especially appropriate given that a major achievement of chaos theory has been the recognition of strange attractors. Few would dispute that the evident chaos of social organization acquires a surprising degree of coherence (of a higher order) primarily through the role of human values -- hence appropriately explored as strange attractors.

Further to the point made above that a sense of "value" is implicit in any capacity to perceive a "problem", especially relevant is how a psychosocial crisis is to be understood. The cognitive confusion associated with a crisis, or any emergent "crisis of crises", suggests a curious complementarity with subtler and more integrative values understood as strange attractors. The use of "hurricane" (with its metaphorical "eye") in descriptions of the recent financial crisis is appropriate recognition of the dynamic nature of the crisis. Are such "wicked problems" to be better understood as strange repulsors? Is it specifically the cyclic dynamic of such problems that is so challenging -- especially when the remedy is framed as reverting to the previous state (Disfunctional Cycles and Spirals: web resources on "breaking the cycle", 2002)?

The point to be stressed is that comprehension of such strange attractors is readily distorted and oversimplified to a problematic degree by conventional use of nouns like "democracy" or "freedom". These do not honour the subtle dynamic with which value apprehension resonates and by which it is attracted. Appropriately the attractiveness is better represented visually or through patterns of sound. Visual renderings of attractors raise the question as to whether conventional values should not be represented in this way rather than through text (Experimental Visualization of Networks: world problems, international organizations, global strategies and human values, 2007).

Many images of strange attractors are offered by Chris Lucas (Strange Attractors and Society, 2005; Attractors Everywhere: order from chaos, 2004) who develops arguments of relevance to that made here. A set of images of strange attractors is also offered on the Wolfram MathWorld site with indication of parameters by which they were generated.

Selection of visual renderings of strange attractors

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<td><img src="image1.jpg" alt="Visual Rendering 1" /></td>
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A particular merit of this approach is that it highlights the need to relate a value to the system dynamics through which it might be implemented in practice or from which it might emerge -- if only progressively. Rather than endeavouring to encompass a value by quantitative indicators (and standard graphs), the question is whether indication of values could be rendered more appropriately and meaningfully by elegant patterns more consistent with their implications -- an analogue model rather than a digital representation in computer simulation terms. As attractive symbols these could prove to be more widely comprehensible across cultures -- inviting consensus where misunderstanding could otherwise prevail.

Patterns of this form are standard fare in the testing of electrical and electronic equipment -- through the use of oscilloscopes.

| Examples of characteristic oscilloscope patterns (reproduced from Wikipedia entry) |
|---------------------------------|---------------------------------|--------------------------------|----------------|
| Heterodyne                      | AC hum on sound                | Sum of a low-frequency and a high-frequency signal | Bad filter on sine |
|                                 |                                 |                                 | Dual trace, different time bases on each trace |
Characteristic patterns are used to recognize problems in electrical circuits. It might be asked, if values are to be more appropriately understood in cyclical terms, whether characteristic value problems could be detected from such visual renderings -- problems otherwise obscured by standard statistical graphs. Of particular interest is whether subtler forms of violence -- as "anti-values" -- could be detectable in this way. Those associated with structural violence, cultural violence or symbolic violence might lend themselves to such renderings.

Value dynamics implied by "patterns that connect"

Possibility of a Great Value Attractor: There is a degree of mysterious charm to the recognition by astrophysicists of the existence of a Great Attractor. This is a gravity anomaly in intergalactic space that reveals the existence of a localised concentration of mass equivalent to tens of thousands of Milky Ways -- observable by its effect on the motion of galaxies and their associated clusters over a region hundreds of millions of light years across.

Such an image raises the question as to the nature of a "great attractor" corresponding to the set of values of human civilization -- with the individual galaxies corresponding to the multitude of collective expressions of values through organizations and belief systems in all their variety. As noted, their identification was an endeavour of the Human Values Project. Should efforts to promote the values of the "international community" not seek to offer visual renderings of that kind -- rather than lengthy articulations in legal jargon in particular languages, inherently incomprehensible to most?

Internet connectivity: One image pointing to such a possibility is that of the following visual rendering of internet connectivity (on the left). It was notably reproduced in commentary on the fragmentation of the virtual world through "balkanization of the internet" (The Future of the Internet: a virtual counter-revolution, The Economist, 4 September 2010). The "balkanization" offers an appropriate indication of the quest for different values within the universe of knowledge and communication space -- as with similar images mapping the blogosphere (on the right). Noteworthy at this time is the number of maps made of the Iranian and Arab blogospheres.

Visual representations of the internet

<table>
<thead>
<tr>
<th>&quot;Nationality&quot; of traffic on the internet (created by the University of California's cooperative Association for Internet Data Analysis)</th>
<th>Interconnectedness of the world blogosphere (reproduced from a private blog on Hillary Clinton and US Foreign Policy)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Image" /></td>
<td><img src="image2.jpg" alt="Image" /></td>
</tr>
</tbody>
</table>

Human brain: As an effort to map one understanding of the emergent "global brain", such internet imagery recalls efforts to map the synapses in the human brain. There remains the tantalizing possibility that science will discover new ways of offering visual renderings of the human brain which could be associated with explorations of visual renderings of value dynamics -- as with current explorations of memetic associations in the brain. Various examples are offered below.
In terms of the argument here with respect to values understood dynamically, it should be stressed that the above images imply various
types of dynamic -- whether with respect to the Great Attractor, internet communications, or signals travelling along synapses. The
images are snapshots of a dynamic.

In a blog post, Jose F. Lopez (More brain connections than stars in the universe? No, not even close, 10 September 2010) makes the
relevant point that:

- **Neurons** (rough overestimate for adults): $10^{11}$, or 100 billion
- **Synapses** (based on 1000 per neuron estimate): $10^{14}$, or 100 trillion
- **Stars** (estimate for observable universe): $7 \times 10^{22}$, that's 70 sextillion!

For every brain synapse ("connection") we have, there are (at least) 700 million (700,000,000) stars somewhere out there. In
other words, the number of stars per human synapse is about the number of people in Europe. Only if we count up the synapses
of all the people alive ($10^{21}$) do we get a number comparable to the star count.

He illustrates his point by reproducing the following map.

---

**Fruitful correspondences:** Whether to be understood as mere visual metaphor, or whether there is a degree of elegant
isomorphism between human brain, global brain and the known universe is a matter for the future. A key factor may well be the
capacity of the human brain to envisage and comprehend itself, the internet-based global brain, and the universe. It is assumed here
that convergence on such understanding is not dependent on objective confirmation of such isomorphism according to conventional
framings of reality -- typically to be vigorously contested from variously disciplinary perspectives. Such a fruitful confluence of
insight may be more closely associated with subjective capacity to comprehend and attach credibility and meaning to elusive
correspondences -- however the process is assisted by the mnemonic resonance between degrees of isomorphism suggested by
metaphor (Theories of Correspondences -- and potential equivalences between them in correlative thinking, 2007; In Quest of Mnemonic
Catalysts -- for comprehension of complex psychosocial dynamics, 2007; Imagining the Real Challenge and Realizing the Imaginal
Pathway of Sustainable Transformation, 2007).

The possibility has been partially explored in separate exercises (Simulating a Global Brain: using networks of international
organizations, world problems, strategies, and values, 2001; Towards an Astrophysics of the Knowledge Universe? from astronautics to noonautics, 2006). Any such possibility should be considered in the light of the fact that far greater effort has been invested (and continues to be invested) in new thinking on how best to conceptualize and comprehend the physical universe, the internet and the human brain, than in rethinking understanding of human values. It is notable in the case of astrophysics and fundamental physics that considerable advances are made -- achieving a degree of credibility despite lack of proof -- on the basis of the internal coherence of the arguments for those with the time, connectivity, capacity and inclination to engage with such particular worldviews.

**Quest for new thinking:** With regard to democracy, freedom and justice, it remains questionable as to whether useful "new thinking" has emerged in recent decades, as argued by Edward de Bono through his World Council for New Thinking (New Thinking for the New Millennium, 2000).


As currently conceived, is a value for any existing institutional system something about which there is nothing new to say? Would this be confirmation of its inability to engage with the adaptive cycle?

Framed otherwise, this attitude to "value development" might be compared with the sterile nature of the debate regarding the existence of deity or divinity as conventionally defined. The significance of divinity -- so essential to much contemporary political discourse -- must necessarily lie beyond the constraints of particular languages or modes of expression. The same could be fruitfully said of values -- especially if the nature of deity is inferred to be an integration of values beyond human comprehension. The theological justification for apophatic discourse -- unsaying -- could be extended to the vital existential experience and significance of values (*Being What You Want: problematic kataphatic identity vs. potential of apophatic identity?* 2008).

How is this to be encompassed by "new thinking"? How are values to be got "out-of-the-box", given the constraints of conventional "in-the-box" thinking?

**Musical clues to values fundamental to psychosocial system sustainability**

Especially intriguing in relation to the dynamic nature of values is recent work on comprehension of music and its organization in the human brain. The brain as an organ, and the organ as a musical instrument, are together elegantly suggestive of a fruitful metaphor for the "organization" of sustainability -- provided the organ can be "played".

Music has of course long been recognized as a vehicle for the expression of values. The following text is reproduced from *Comprehension of Requisite Variety for Sustainable Psychosocial Dynamics: transforming a matrix classification onto intertwined tori* (2006).

The relation of music to the functioning of the brain is a theme in the cognitive neurosciences [more]. Research by Petr Janata et al (*The Cortical Topography of Tonal Structures Underlying Western Music, Science, 13 December 2002, 298, 5601, pp. 2167-2170*) has indicated that knowledge about the harmonic relationships of music is maintained in the rostromedial prefrontal cortex providing a stronger foundation for the link between music, emotion and the brain. The melody used experimentally was crafted to shift in particular ways through all 24 major and minor keys. The relationships between the keys, representative of Western music, create a geometric pattern in the form of a torus (see Petr Janata, *Music Mapped to the Torus*, 2005, and *torus dynamics movies*).

The piece of music moves around on the surface of the torus offering a means of determining the pure representation of the underlying musical structure in the brain. The work clarified the mapping of melodies in the brain, as it varied from one occasion to another suggesting that the map is maintained as a changing or dynamic topography. This dynamic map may provide the key to understanding why a piece of music may elicit different behaviours at different times [more more] (see also Robert J. Zatorre and Carol L. Krumhansl, *Mental Models and Musical Minds, Science, 13 December 2002: 298. 5601, pp. 2138-2139*). Of particular interest was the role of any such mapping in the memorability of favourite tunes.

The torus may be used as a representation of harmonic space. A piece of music moves around in this space [more]. The results of psychoacoustical 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.
Expression of values through aesthetic style of governance

A provocative question for the emerging systems of governance in the Arab world is how they are to be recognized as embodying a unique aesthetic style -- especially given the style traditionally associated with Arab culture. Whilst "style" can be understood conventionally as synonymous with "method", the question is whether there is any degree of elegance to be recognized as informing that method and imbuing it with qualities that would otherwise be absent. Value added?

The matter has been argued speculatively in relation to governance in the distant future (Aesthetics of Governance in the Year 2490, 1990). It may well be that the future will recognize present governance as tragically lacking in aesthetic style -- as reflected in administrative architecture, notably of the European Community sector of Brussels. This absence is consistent with arguments regarding the "soulless" nature of international institutions and their architectural manifestations..

The relevance of the point can be emphasized by the following images reflecting the contrasting musical preferences of Europeans.

<table>
<thead>
<tr>
<th>Contrasting caricatures of &quot;harmonization&quot; in governance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(reproduced from Governing Civilization through Civilizing Governance Global challenge for a turbulent future, 2008)</td>
</tr>
<tr>
<td>Top-down &quot;static&quot; vision? &quot;explicit imaginary&quot;</td>
</tr>
<tr>
<td>EU &quot;non-Constitutional&quot; Reform Treaty (in process of ratification under questionable conditions of &quot;democratic deficit&quot;) suppressing reference to the EU anthem (Beethoven's Ode to Joy)</td>
</tr>
<tr>
<td>If aesthetic harmony (notably musical lyrics) offers a way forward, possibilities might include: A Singable Earth Charter, EU Constitution or Global Ethic? All Blacks of Davos vs All Greens of Porto Alegre: reframing global strategic discord through polyphony?</td>
</tr>
</tbody>
</table>

Liberation of integration in governance

The contrasting images above highlight dramatically the challenge for any science through which values are embodied in governance.

The images are provocatively indicative of contrasting appreciations of democracy, freedom and justice.

As previously discussed, reflection on possibilities of fruitfully integrative governance could well be informed by taking seriously the insights into "harmony" from music -- given the extent to which "harmonisation" is a prevailing refrain in international discourse, especially within European institutions (Liberation of Integration through pattern, oscillation, harmony and embodiment, 1980; Using Research in the Participative Orchestration of Europe, 2004; A Singable Earth Charter, EU Constitution or Global Ethic?, 2006; Harmony-Comprehension and Wholeness-Engendering: eliciting psychosocial transformational principles from design, 2010).

Values like democracy, justice and freedom are then more appropriately understood as implicit. Using dance as a metaphor, it is through the style and elegance of movement that the values can be recognized. It is the dynamics of dance which embodies values. They cannot be "grasped" or "possessed" any more than a dancer can "grasp" the values embodied in the movement. Similarly, it is the dynamics of government which embodies the values by which its style is recognized -- irrespective of the well-spun formal declarations and skillfully arranged photo-opportunities by which it endeavours to disguise its style and intentions.

Can the dynamic quality of the evocation of values be more appropriately clarified by the following description by philosopher Antonio de Nicolas (Meditations through the Rg Veda: four-dimensional man, 1978, p. 57) of the four complementary conceptual languages of the Rg Veda that are considered necessary to hold the complexity of insights and experience:

| Therefore, from a linguistic and cultural perspective, we have to be aware that we are dealing with a language where tonal and arithmetical relations establish the epistemological invariances…. Language grounded in music is grounded thereby on context dependency; any tone can have any possible relationship to other tones, and the shift from one tone to another, which alone makes melody possible, is a shift in perspective which the singer himself embodies. Any perspective (tone) must be ‘sacrificed’ for a new one to come into being; continuity, and the 'world' is the creation of the singer, who shares its dimensions with the song. |

The challenge has been articulated otherwise by George Lakoff and Mark Johnson (Philosophy In The Flesh: the embodied mind and its challenge to Western thought, 1999).
Fundamental values and individual cyclic implication

The above argument highlights the merit of exploring conventional values for the individual (health, food, shelter, etc) as better defined and comprehended in terms of cycles. There is the further implication that such comprehension then empowers new possibilities in response to situations in which these particular values are problematically recognized by their absence or dysfunction. The following argument follows in part from earlier studies (Needs Communication: viable need patterns and their identification, 1980; Spherical Configuration of Categories to Reflect Systemic Patterns of Environmental Checks and Balances, 1994).

In each of the following cases -- as with the example above -- English at least is challenged to recognize the "value" as a dynamic through an appropriate verb. Such recognition has previously been argued as a case of "unfreezing categories" (Framing the Global Future by Ignoring Alternatives: unfreezing categories as a vital necessity, 2009), discussed there notably in relation to: employment, health, safety, energy, education and growth.

Health: The fundamentally cyclic process of life is recognized through the biological life cycle. "Health" is increasingly commodified through notions of "health delivery". It is far less clear how individuals engage with -- and value -- their biological lives in cyclic terms. Typically, whilst understanding may be framed through the verb to "live", there is no dynamic sense to "health". If health is better understood as an appropriate configuration of cycles, these might clearly include the following "systems":

- respiratory cycle
- digestive cycle
- blood circulatory cycle

Other "systems" which might be understood in cyclic terms are the lymphatic system and the nervous system. Clearly the cyclic nature may relate more to an experience over time than to a cyclic flow, as with the ovulatory cycle. Over longer periods of time, other cyclic dynamics may become apparent, as with the reproductory cycle. Reference is also made to the "aging cycle" (how to mitigate it), notably through an "exercise cycle". The cyclic nature of the digestive cycle is also questionable in the absence of evident "recycling" of wastes -- through interaction with cycles relating to procuring of nourishment.

At the cellular level there are many processes, some of them cyclic -- as with the Citric Acid Cycle (Krebs Cycle), the Urea Cycle or the Glyoxylate Cycle, with flow in a cycle such that each component of the cycle is a substrate for the subsequent reaction in the cycle. The interweaving of such metabolic pathways are essential to life. It is noteworthy that, in the tradition of Wikipedia, WikiPathways is an open, public platform dedicated to the curation of biological pathways (for all species) by and for the scientific community. Over 1600 pathways are profiled. Is there a case for a psychosocial equivalent?

Of some relevance, understandings of "health" in relation to "disease" have been partially addressed in terms of Patterns Essential to Individual and Global Health? (2010) in considering the Cognitive Implications of Lifestyle Diseases of Rich and Poor: transforming personal entanglement with the natural environment (2010).

Nourishment: "Food" represents one of the values that is most clearly commodified and "packaged" (even literally so). It is increasingly recognized that such products are mistakenly understood as primarily to be acquired at markets, even supermarkets, totally disassociated from the farming and other processes from which food is derived. The cyclic relationship to nourishment has effectively been broken by dependence on agribusiness -- except for those few who choose to engage with their own food production in various forms of gardening and animal husbandry. Cycles that might be (faintly) recognized include:

- foraging / predation cycle -- possibly involving extensive travel (as with acquiring water), but perhaps now to be understood as going to the supermarket (or exploring the trash cans of restaurants for food waste)
- food preparation cycle -- perhaps avoided by acquisition of pre-processed foods
- consumption cycle
- waste disposal and recycling

Of relevance to this argument are the ways in which "food" as a value is reframed in more dynamic and cyclic terms by those who are not simply satisfied with its consumption. One example is the slow food movement. Also of relevance are the variety of concerns with cyclic patterns of dietary variation, notably as fundamental to health. Within a larger environmental context, importance is now attached to recognition of the nutrient cycle (the biogeochemical cycle) whereby nutrients move from the physical environment into living organisms, and subsequently are recycled back to the physical environment.

This argument with respect to nourishment has been extended to the possibility of a healthy "information diet" (Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures, 2008). A striking example is the possibility that widespread preferences for "positive" thinking may have implications analogous to preferences for "sweets" and the consequent rising incidence of diabetes (Barbara Ehrenreich, Smile Or Die: how positive thinking fooled America and the world, 2010).

Employment: A major source of stress around the world is the lack of "jobs" within the economic system as it has emerged and been elaborated. The notion of "job" is intimately entangled with "value", especially through the framing of "valuable" job from an economic perspective -- as a key to other values and as a measure of self-worth. Again, through this framing, jobs have become highly commodified. Within that understanding, evident cycles include:

- cyclic pattern of activity "on the job", as on a production line
- daily commute and work cycle
- weekly cycle
- annual cycle
- career cycle -- involving the phases of exploration, establishment, maintenance and disengagement
By focusing on "employment" rather than "job", other potentially cyclic processes can be recognized as missing from such a checklist:

- cyclic shift between "employment" and "unemployment"
- cyclic engagement with other forms of "employment" -- as with "working in the garden" or "housework", which are typically not recognized as "jobs" from an economic perspective, nor as the kind of "job" to be valued
- cyclic patterns of "employment" of those to old to "work" or have a "job"

The "employment" framework can be used to suggest that to be alive is to be "employed" -- even minimally through the work required by the body to sustain itself. Respiration is a form of work from a thermodynamic perspective. In this sense "job" is effectively a distortion from an economic perspective of a wider, and potentially more fruitful, understanding of "employment". Understood in this way, it is with the cycles of "employment" that value is more closely associated, especially for those who do not have a "job". It is through this framing that the "job crisis" might be more fruitfully addressed.

The focus of worldwide protest is on the lack of "jobs", with politicians engaging in rhetoric on "job creation" -- effectively the ability to produce "employment boxes". This framing from an economic perspective is fundamentally unrealistic given that the possibility of "creating jobs" or "delivering jobs" is increasingly constrained -- in the light of rising demand -- most notably as a consequence of unchecked population growth. A potentially more fruitful approach is one of "engendering employment" through which a sense of self-worth can be sustained and enhanced, as previously argued (In Quest of a Job vs Engendering Employment: escaping economic disempowerment through enabling metaphors and software, 2009; Sustainable Occupation beyond the "Economic" Rationale Reframing "employment", "non-profit-making" and "voluntary" in a context of increasing "unemployment" and failure of "social safety nets", 1998).

This argument also calls into question the nature of the "wealth" (as a value) created by a "job", in contrast with the nature of the wealth associated with meaningful "employment" (Engagement: 14 Contrasting concepts of meaningful employment, 1996; Being Employed by the Future: Reframing the Immediate Challenge of Sustainable Community, 1996; Re-enchantment of Work: Hi Ho, Hi Ho, Its Off to Work We Go: Engagement in the 21st Century, 1996; Sustainable Lifestyles and the Future of Work: Learnings from "The Employment Dilemma and the Future of Work", 1996).

Given the degree of stress currently associated with lack of "jobs", there is a case for according minimal attention to the "economic models" of those communities where employment is not remunerated in a conventional sense -- as long explored through "simple living" in intentional communities and lifestyles (Duane Elgin, Voluntary Simplicity: toward a way of life that is outwardly simple, inwardly rich, Quill, 1998). It is the fact that such options are not explored by economically-biased establishments which suggests that the prevailing model is deliberately designed to depend on the capacity to exploit the existence of a pool of people lacking "jobs" -- as argued from some political perspectives, perhaps to be understood as an "Ultimate Con".

**Shelter:** In a period when millions live in refugees camps, and more millions live in shelters inadequate for protection against intruders or the elements, new thinking is appropriate regarding the value of "shelter" -- readily framed as a product to be supplied via the building industry. The associated stress is exacerbated by exposure of many in such conditions to media presentations of the forms of "shelter" characteristic of some in the more developed societies. The cycles potentially associated with shelter include:

- construction cycle -- corresponding to the nest building phase of many animals
- maintenance cycle -- typically required of many dwellings
- heating / cooling cycle -- as required to engage effectively with the elements
- security cycle -- as required to ensure protection and defence against intruders
- refurbishment cycle -- characteristic of continuing desire for improvement of the shelter

The challenge of shelter, as with health and nourishment, is how the associated cycles are constrained and distorted by unchecked growth in family size. The challenge is further exacerbated for the elderly and disabled. The question that is readily forgotten is the quality of life represented by a shelter, even of the simplest kind, as extensively discussed by Christopher Alexander in the light of an appropriate "pattern language" designed to empower anyone to design and build at any scale (The Timeless Way of Building, 1979; A Pattern Language, 1977).

Alexander's argument with respect to the value of "shelter" understood in physical terms can be extended to other forms of shelter and the cycles they imply (5-Fold Pattern Language, 1984). This included:

- Socio-organizational environment: namely the organization of social groups, organizations and networks.
- Conceptual environment: namely the organization of a conceptual framework or a body of knowledge.
- Intro-personal environment: namely the organization of modes of awareness adopted by a person.

Further to the insights of Alexander's subsequent work on Harmony-Seeking Computations (2009), it is possible to reflect on the value of "beauty" itself as being expressed by a verb rather than a noun (Beauty as a Verb: de-signing the future, human nature and the environment, 2010).

**Individual attractiveness:** The argument above with respect to the static appreciation of values as nouns vs. their dynamic appreciation as verbs is neatly reflected in the relative evaluation of human beauty. This is typically based on measurement of physical characteristics (height, weight, girth, facial proportions, etc) -- and far more surreptitiously with respect to breasts, buttocks and penises as attractors. There is little capacity to evaluate attractiveness with respect to measures of movement except by expert jurors in sport and dance -- and, far more surreptitiously, with respect to intercourse. (Global Governance via a Double-breasted Strange Attractor: cognitive implication in a dynamic sexual metaphor, 2009)

Evaluation of the attractiveness of the capacity to "move" in society -- the people intelligence of personal interactivity -- might be said to be as inadequate as the evaluation of democracy, freedom and justice with respect to their more powerfully fundamental implications
and capacity to engage attention. Upheld as inherently "beautiful" insights, it is in this sense that they are indeed "strange attractors" determining psychosocial dynamics.

**Education:** This is framed as a value which is a key to success within the prevailing socio-economic system. Within the framework of the human biological cycle it has been further associated with *lifelong learning*. For the educator, and possibly a potential student, an educational or learning cycle can be variously defined, notably in the light of various models of *learning styles*, as

- assess needs, set objectives, design methods, design assessment, assess needs....
- **learning cycle:** engage, explore, explain, extend, evaluate, engage....
- David Kolb: identify further learning, plan, implement, apply, evaluate, disseminate, identify further learning... [this has also been associated with a *reflective learning cycle*]

A review of a variety of cyclic approaches to "experiential learning" is provided by James Neill (*Experiential Learning Cycles: overview of 9 experiential learning cycle models*, 2010).

Whilst all these "models" are valuable as explanations of a process, they are perhaps necessarily less explicit about the experiential enfragement of the learner in learning cycles, notably when framed beyond the typical educational deliverables of skills and certificates. Less clear are the cycles in which people may fruitfully engage in the pursuit of "experience", "maturity" and "wisdom" -- however these are to be understood, especially in a more spiritual context. From a lifelong learning perspective, it is these which may be implied by "education" but how they are dynamically acquired and embodied is another matter.

**Happiness:** "Life, Liberty and the pursuit of Happiness" is upheld as one of the most influential phrases in the *United States Declaration of Independence*. In this context, *happiness* is considered one of the "unalienable rights". The nature of happiness and the capacity to pursue, "get" or sustain happiness is a matter of continuing research from a variety of perspectives. The features of a "happiness cycle" have been contrasted with a "depression cycle" by Herb Sorensen (*The Happiness Cycle*, 2000). The nature of the cycle has been challenged by Charlsie Winston (*The Pursuit of Happiness Myth*, 2007). As experienced, the cyclic dynamics might include:

- entertainment cycle
- recreation cycle
- gifting cycle
- celebration cycle
- socializing cycle

Again the question is whether the value of "happiness", understood as a noun, disguises qualities of happiness that can only be appreciated through cyclic dynamics. Especially interesting, given its place in the US Constitution as a defining instrument of democracy, is the extent to which American understandings of "happiness" will be written into any new constitutions of Arab countries. Given the condemnation of *hedonism* by Islam, the relation of any happiness cycle to the "hedonic treadmill" may well be challenged.

**Identity and self-esteem:** These interrelated terms are readily assumed to be adequate descriptors of what are necessarily subtle experiential, if not existential, processes. Administratively "identity" may simply be associated with "having papers" -- held to be "proof of existence". Whilst clearly much to be valued in some contexts, this framing clearly raises the question as to whether one can "exist" and have an "identity" without having such "papers" as evidence confirming the fact. This may be a matter of tragicomedy in the case of those formally declared to be "non-existent" or erroneously defined as "dead" -- as recognized by various associations for "dead people".

A cyclic approach to identity as expression of interlocking cycles has been undertaken separately (*Emergence of Cyclical Psycho-social Identity: sustainability as "psycially" defined*, 2007).

Irrespective of the question of identity, a potentially more agonizing value, assumed to be described by a noun, is "self-esteem" or "self-worth" -- presenting the challenge of how it is to be "acquired". This challenge is central to the worldwide experience of depression and despair as separately discussed (*Implication of Personal Despair in Planetary Despair avoiding entrapment in hopeful anticipation*, 2010). This approach may be related to various understandings of phases of human development through challenging problems. These include the value crises -- crucial for continued development -- encountered through the lifecycle, as articulated by Erik Erikson scheme (*Childhood and Society*, 1963):

- Infancy (basic trust vs. basic mistrust)
- Early childhood (autonomy vs. doubt)
- Play age (initiative vs. guilt)
- School age (industry vs. inferiority)
- Adolescence (identity vs. role confusion)
- Young adulthood (intimacy vs. isolation)
- Adulthood (generativity vs. stagnation or self-absorption)
- Mature adulthood (integrity vs. despair)

Especially intriguing is the case of individuals who have explicitly addressed their sense of identity by declaring themselves to be a "verb" or have explored the possibility:

- R. Buckminster Fuller: *I Seem to be a Verb* (1970)
- Ulysses S. Grant: *The fact is I think I am a verb instead of a personal pronoun. A verb is anything that signifies to be; to do; or to suffer. I signify all three.*
- Thomas A. Sebeok: *I Think I Am a Verb: more contributions to the doctrine of signs* (1986)
More complex still, given the system dynamics explicitly acknowledged, is the book-length exploration by Douglas Hofstadter (I Am a Strange Loop, 2007). This suggests a collective possibility, speculatively explored for those "afflicted" in this way (Sustaining a Community of Strange Loops: comprehension and engagement through aesthetic ring transformation, 2010).

**Embodiment of values in interweaving cycles**

As explored with respect to "pillars", a step beyond isolated values (even as a set of "pillars") is to consider how the "pillars" might be configured in three dimensions to form polyhedra -- implying a coherent system of some kind (In Quest of a Strategic Pattern Language: a new architecture of values, 2008). Following from the work of Fuller, a relevant feature of this possibility is that spherically symmetrical polyhedra are embedded in interlocking cycles which effectively define them.

This is suggestive of the relationship of values to forms of psychosocial organization relying on the integrative function of the circle (Engaging with Globality through Cognitive Circlets, 2009; Spherical configuration of interlocking roundtables: Internet enhancement of global self-organization through patterns of dialogue, 1998). Such circular organization implies the emergence of value through its dynamic. The circle might be said to engender or evoke value.

In such a context of more complex configurations of values, the psychology of engagement is potentially of great significance (Topology of Valuing: dynamics of collective engagement with polyhedral value configurations, 2008; Dynamic Exploration of Value Configurations Polyhedral animation of conventional value frameworks, 2008). Also of potential importance is the ability to transcend polarized dynamics through alternation (Embodying Values Dynamically through Alternation: Integrating sets of polarized static values through indicative metaphor, 2008).

The opportunity may be reframed with the use of a weaving metaphor (Interweaving Thematic Threads and Learning Pathways, 2010). How might democracy, justice and freedom interweave as verbs:

![Indicative 3-fold interweaving using a traditional symbol (as separately discussed)](image)

What other values are important if not vital to an attractive, sustainable value "weave" -- as suggested by the addition of solidarity below? Can the result be fruitfully portrayed as a "tapestry" of value dynamics in which particular values dominate under certain conditions, as might be tentatively suggested by the following?

<table>
<thead>
<tr>
<th>Relationship between dominant and repressed values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Repressed values</strong></td>
</tr>
<tr>
<td>liberty</td>
</tr>
<tr>
<td>equality</td>
</tr>
<tr>
<td>justice</td>
</tr>
<tr>
<td>fraternity</td>
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</table>

Interweaving values in this way suggests the possibilities of a form of "magic carpet" of values -- capable of transporting in new ways (Magic Carpets as Psychoactive Systems Diagrams, 2010). Like "magic carpets", the key to the transportation potential of values lies in how they are interwoven -- and how that is appreciated. This use of "weaving" as a metaphor needs however to be understood as emphasizing the continuing process rather than a completed product.

Exercises in mapping the transformational relationships between 64 dynamic conditions in the Chinese I Ching (The Book of Changes), considered here as indicative of "values as verbs" (screenshots of svg animations, without and with pathways, and with same mouseover label showing)
The 64 "values" interrelated here are the subject of detailed commentary in *Transformation Metaphors derived experimentally from the Chinese Book of Changes (I Ching) for sustainable dialogue, vision, conferencing, policy, network, community and lifestyle* (1997).

**Conclusion**

**Values as verbs:** The intention and main conclusion of the above argument is that there is a case for at least investigating the possibility of more effective embodiment of values as verbs in the dynamics of psychosocial organization. The approach would seem potentially to offer other fruitful possibilities. Assumptions regarding values as nouns would seem to constitute an unfortunate cognitive trap with institutional implications.

However, as noted above, the curious effort to trademark "democracy is a verb" within the USA is indicative of the potential for highly dysfunctional interweavings of values through introducing such legal constraints in relation to any consideration of "freedom" and "justice" as verbs. Adapting the much translated and interpreted Chinese insight from the *Tao Te Ching* (175+ Translations of Chapter 1):

> The Value which can be named is not the eternal Value.  
> The quality which can be named is not its true nature.

The argument has been well made by the surrealist painter René Magritte in his much-commented image "*This is not a pipe*" (on the left). A corresponding image could be made (on the right) regarding "*Democracy is a verb*" (and legal constraints on its use).

**Images of comparable significance?**

*Meta-pattern that connects:* The argument drew attention to the merit, variously upheld, of insights consistent with the approach advocated. Expressed in terms of individual or collective learning, this may be understood as the progressive, integrative interlocking of accumulated patterns into nested meta-patterns -- as a solution to human processing capacity limitations. There seems to be a form of directed convergence onto a progressively clarified ultimate meta-pattern, towards which learning tends asymptotically. Final (en)closure is never achieved (except possibly as an essentially transient, private, transcendental experience). Is the connectivity of a meta-pattern to be understood dynamically like a standing wave?

Gregory Bateson (*Mind and Nature; a necessary unity*, 1979 describes this ultimate pattern as:
The pattern which connects (all living creatures) 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)

**Cognitive capacity:** It is in this sense that human cognitive capacity necessarily plays a key role, given its constraints in imagining any such pattern, whether in the case of the universe, the human brain, or the internet -- potentially to be understood as a global brain. By-passing the constraint to a degree may be a matter of enactivating richer metaphors -- relevant in their turn to more integrative approaches to governance, as previously argued (Innovative Global Management through Metaphor, 1989). Each of these comprehensive patterns (universe, brain, internet, deity) may serve as metaphors for the other -- possibly together forming a mysterious "resonance hybrid" through which to engage with the incomprehensible (Engaging with the Inexplicable, the Incomprehensible and the Unexpected, 2010).

There is a self-reflexive aspect to that exploration as pointed out by Gregory Bateson to a conference on the effects of conscious purpose on human adaptation -- in explaining why "we are our own metaphor":

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 simplicity. (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. This could well be of significance for the governance of social processes characterized by patterns of relationships normally too complex for the mind to grasp. As with the "weaving" metaphor, it is the process of "poetry-making" that is its key -- rather then the completed product (Poetry-making and Policy-making: arranging a marriage between Beauty and the Beast, 1993). As a key to value-based encounters, this would be relevant to its consideration in relation to current conflicts (Poetic Engagement with Afghanistan, Caucasus and Iran: an unexplored strategic opportunity?, 2009; Strategic Jousting through Poetic Wrestling, 2009).

Of special interest in comprehending non-linear cyclic processes in relation to linear thinking, are the potential insights arising from the relation of rhythm to metre in poetry. In this sense the current "spastic" development of society, as a victim of economic cycles, may be seen as resulting from an a-rhythmic approach to governance.

**God as a verb?** With respect to the one "meta-pattern" to which most reference is made, and in the spirit of the introductory quote regarding deity and the "Word", it is therefore intriguing to note (if only in English) the variety of authors choosing to argue that "God is a verb":

- R. Buckminster Fuller: God is a Verb. Whole Earth Catalog, Fall 1968
- Dan Moonhawk: God is a Verb: worldview thought experiment. Alford, 1994
- Jason Derr: God is a verb. The Huffington Post, 8 July 2010
- Steve Bevans: God is a Verb. Catholic Theological Union, October 2010

**Being a verb?** Matching this insight is that of individuals advocating some sense of themselves "being a verb" (as cited above), including:

- R. Buckminster Fuller: I Seem to be a Verb, 1970
- Thomas A. Sebeok: I Think I Am a Verb: more contributions to the doctrine of signs, 1986

The implications for comprehension of a meta-pattern may be taken further by the arguments of Peter Russell, who so fruitfully framed recognition of the emergence, via the internet, of a "global brain" and "planetary consciousness" (The Global Brain Awakens: our next evolutionary leap, 1995). But with respect to the above argument, Russell also makes the point that There’s No Such Thing as Ego (Spirit of Now, 22 November 2010):

Our exploration of ego would be more fruitful if we stopped using the word as a noun, which immediately implies some "thing", and instead thought of ego as a mental processes that can occupy our attention. For this a verb is a more appropriate part of speech. I am "ego-ing".

The difference is subtle, but very important. If I see the ego as a separate self, some thing, then it is easy to fall into the belief -- common in many spiritual circles -- that I must get rid of my ego, transcend it, or overcome it in some way. But seeing ego as a mental process, a system of thinking that I get caught in, suggests that I need to step out of that mode of thinking -- to look at the world through a different lens, one less tainted by fear, insecurity and attachment.

**God as a global brain?** Whilst Russell's argument is consistent with an insight from flow psychology that life is a verb -- and so too the human brain -- his involvement with the internet-enabled global brain suggests that the internet itself is best understood as a verb. Few would deny that it is the dynamics of the internet which are so significant. Already references are appearing to the effect that the "internet is a verb" or to thinking of the "web as a verb" -- suggesting that any global brain is itself better understood as a verb.

The argument here for a dynamic perspective -- poorly reflected in the imagery above -- is ironically reinforced at the time of writing by a discussion thread of a list of the Global Brain Group with respect to the theme "God as a Global Brain". As might be expected, arguments are now made for perceiving the universe as a verb -- since everything in the universe is effectively in motion, poorly
articulated by the divisions of language into nouns and verbs.

Discouraging globally? How are these different kinds of "verb" to be distinguished -- especially in the light of any implied corollaries between the above insights?

These examples of human thinking endeavouring to engage with all-encompassing systemic patterns -- a meta-pattern -- highlight the tragedy of the current static trap of global discourse. This is exemplified by the conventional focus on nation "states" -- effectively precluding "sustainable development" -- which the future will probably find as laughable as efforts to reassert a flat-Earth metaphor (Irresponsible Dependence on a Flat Earth Mentality -- in response to global governance challenges, 2008).

How can people even imagine engaging cognitively with a meta-pattern necessarily beyond their comprehension -- least controversially, with the internet? Of some relevance are the efforts to define the latter in terms of a **metaverse**, intimately related to the dynamics of online game playing and virtual worlds, suggestive of possibilities relevant to global governance (Playfully Changing the Prevailing Climate of Opinion: climate change as focal metaphor of effective global governance, 2005). Potentially exciting for the young is the sense of a new cognitive frontier, perhaps as articulated in the synthesis of Vasily Nalimov (In the Labyrinth of Language: a mathematician's journey, 1981; Realms of the Unconscious: the enchanted frontier, 1982), summarized elsewhere (Pattern learning: probabilistic vision of the world). In that spirit, within the framing of a **multiverse** -- the hypothetical set of multiple possible universes -- the "verse" of "universe" -- might well be understood like the "verse" of a poem (as "potential embodied")?. Of more personal significance is the speculative possibility of People as Stargates (1996) -- an alternative perspective on human relations in space-time.

The challenge of the times -- despite and because of the explosion of communication possibilities -- is that essentially the knowledge society is developing to a point at which nothing can be effectively communicated "globally" (Emerging Memetic Singularity in the Global Knowledge Society, 2009; Dynamically Gated Conceptual Communities, 2004). One fruitful approach to understanding the challenge and the scope for communication is that of mathematician Ron Atkin (Multidimensional Man; can man live in 3-dimensional space?, 1981). As previously discussed, he offers a way of thinking about the dynamics of communication "around" that which cannot be effectively encompassed cognitively (Comprehension: Social organization determined by incommunicability of insights, 1995).

This is an understanding consistent with various religious traditions. It also relates to the above-cited statement of Sabelli (1995), regarding non-linear dynamics as a dialectic logic, to the effect that: *Standard logic neglects actions by reducing all verbs to the copula "to be", and further, interpreting "to be" in a static sense. Such concerns -- and confusions regarding "to be" -- form part of the discourse on the "map-territory relation"*. These were central to the preoccupations of Alfred Korzybski (Science and Sanity: an introduction to non-Aristotelian systems and general semantics, 1933) and of Gregory Bateson (Angels Fear: towards an epistemology of the sacred, 1987). As an assertion of incontrovertible fact, "is" is a source of potential diaster -- especially when it excludes emergence of other possibilities.

In a period of global discourse in which conflicts frequently arise over issues of "territory" and how they relate to "maps", affirmations that anything "is a verb" are themselves problematic in the light of any implied corollaries regarding non-linear dynamics as a dialectic logic, to the effect that: *Standard logic neglects actions by reducing all verbs to the copula "to be", and further, interpreting "to be" in a static sense. Such concerns -- and confusions regarding "to be" -- form part of the discourse on the "map-territory relation"*. These were central to the preoccupations of Alfred Korzybski (Science and Sanity: an introduction to non-Aristotelian systems and general semantics, 1933) and of Gregory Bateson (Angels Fear: towards an epistemology of the sacred, 1987). As an assertion of incontrovertible fact, "is" is a source of potential diaster -- especially when it excludes emergence of other possibilities.

**Cognitive super-fluency?** A "box" may well be unable to contain the integrative qualities of the new thinking required regarding the essentially dynamic nature of values. Hence the merit of exploring the design insights enabling the magnetic containment of nuclear plasma in toroidal fusion reactors, considered so vital as a future energy source. Is an analogous form required to contain interwoven value dynamics (Enactivating a Cognitive Fusion Reactor, 2006; Enabling Governance through the Dynamics of Nature: exemplified by cognitive implication of vortices and helicoidal flow, 2010)? As with plasma, are the dynamics to be best understood in terms of a high order of cognitive "fluidity" enabling some valuable form of "fusion"? How might this respond to the challenge of universal information overload (Hyperaction through Hypercomprehension and Hyperdrive: necessary complement to hypertext proliferation in hypersociety, 2006)?

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**Toroidal universe -- of value dynamics?**


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