



laetus in praesens

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Embodying the Geometry of Fundamental Cognitive Dynamics

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Introduction

This explores a possible reframing of cognitive despair and pointlessness in the face of the outcomes of highly questionable strategic initiatives, past, present and as currently envisaged. The despair is necessarily both planet-wide and highly personal (*Implication of Personal Despair in Planetary Despair*, 2010). The condition can be described as a form of cognitive "ground zero" -- a sense of pointlessness notably articulated through recognition that the future offers "nothing", especially for those reduced to "nothing" by a combination of factors, as previously discussed (*Reintegration of a Remaindered World*, 2011).

This document introduces ten others, indicated and introduced in sections below. An alternative overview of the set of documents, with links to their own subsections, is provided separately as a form of [Table of Contents](#).

The question here is the nature of the empowerment brought to light by these circumstances (*Conceptual Ground Zero: empowerment declaration*, 2002). Is there scope for more than what might be described as "palliative care" of a tragically dying civilization and of those variously condemned to experience of its death throes? (*Configuring the Varieties of Experiential Nothingness*, 2012)

In this critical period, preparations are being made for the forthcoming "Rio+20" event [see [draft agenda](#)], two decades after the [UN Conference on Environment and Development](#) (Rio de Janeiro, 1992) and its [Agenda 21](#) action plan. These presentations are made in the light of achievements with respect to the [Millennium Development Goals](#) commitments, and the preparatory UN Global Sustainability Panel Report (*Resilient People, Resilient Planet: A Future Worth Choosing*, January 2012). The [Thematic Social Forum: Capitalist Crisis, Social and Environmental Justice](#) (an offshoot of the World Social Forum) has provided a nongovernmental focus in preparation for the parallel [Peoples Summit Rio+20](#).

The question of concern is whether all avenues are being explored to bypass the organizational weaknesses that have become so evident, as highlighted by the *Urgent Appeal to Change the Mindset* (March 2011) launched by the [Civil Society Reflection Group on Global Development Perspectives](#), as separately discussed (*Embodiment of Change: comprehension, traction and impact? Discovering enabling questions for the future*, 2011).

A key factor with respect to the emergence of appropriate strategic knowledge may be intimately associated with what is missing, as argued by [Terrence W. Deacon](#) (*Incomplete Nature: how mind emerged from matter*, 2011) and previously discussed (*Evolutionary influence of the absent*, 2011). For Deacon:

... **have we been looking in the wrong places for clues?** ... brain researchers and philosophers of mind have focused on brain processes, neural computations and their correspondences with the material world. But what if we should be focusing on what is not there instead? ... I believe that in order to overcome this stalemate **we need to pay more attention to what is intrinsically not present in everything** -- from life's functions and meanings to mind's experiences and values. [*emphasis added*]

On the occasion of the 1992 event the question was raised as to whether the conventional mode of thematic organization was adequate to the strategic challenge (*Configuring Globally and Contending Locally*, 1992). The question for Rio+20 is whether the necessary lessons have been learned from indicatives such as the [UN Climate Change Conference](#) (Copenhagen 2009), as previously reviewed (*Insights for the Future from the Change of Climate in Copenhagen*, 2010). Will the future see the strategic articulation by Rio+20 of "The Way" as yet another example of "more of the same" -- a skillful rearrangement of the deck chairs on [R.M.S Titanic](#)?

With respect to what might be "missing", **the focus here is on the metaphorical language by which strategic discourse is currently enabled and entrapped in articulating "points" of agreement, "lines" of action, and configurations appropriate to their coordination and implementation.** This follows from earlier explorations (*Geometry of Thinking for Sustainable Global Governance*, 2009; *Metaphorical Geometry in Quest of Globality*, 2009). These raise the question of whether casual use of such geometric metaphors hinders attention to what they might otherwise more fruitfully offer and by which engagement might be elicited. Is 2012 to be witness to the deployment of a thinking style that has so clearly demonstrated its strategic inadequacy and incoherence?

At a time of rumours of attacks in relation to Iran, this is a reflection on the possibility of moving beyond high tech variants of "throwing stones" -- presumably a strategy dating from the Stone Age. Curiously that objective is effectively one of engendering "nothingness", most evidently through annihilation. The nature of the "point" to be made thereby is unclear. No higher dimensional framework is offered, advocated, or seemingly even desired (*And When the Bombing Stops? Territorial conflict as a challenge to mathematicians*, 2000; *Cognitive Ballistics vs. Derivative Correlation in Memetic Warfare*, 2009).

In the absence of such a framework, the question is raised as to whether the point of some cultures -- their identity -- can only be effectively made through engendering nothingness and engaging in negation. This may well be a characteristic of all cultures and of identity -- especially for those upheld as specially [Chosen by God](#), and unusually traumatised by their own potential pointlessness in their effort to remain "number one". Ironically, the further implications of "one" and "zero" explored here are reinforced by their formal resemblance, respectively, to the missiles and to the nothingness it is hoped thereby to ensure.

Beyond cognitive despair?

The condition is dramatized by the explosion of information, knowledge and previously-unimaginable supportive technologies. Various books have focused on the implications of these trends in the light of the evident information overload and the exacerbation of inequalities (Hamlet, Carr, ***). These trends arguably converge on a poorly recognized singularity (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009).

Especially helpful is the clustering of the perspectives offered into three groups, as recognized by [Adam Gopnik](#) (*The Information: how the Internet gets inside us*, *The New Yorker*, 14 February, 2011). He calls their authors the "[Never-Betters](#)", the "[Better-Nevers](#)", or the "[Ever-Wasers](#)". The first believe that humanity is on the brink of a new utopia, the second that humanity would have been better off without such developments, with the third suggesting that these contrasting perspectives existed throughout the development of information and historical commentary on it.

Various parties, typically in dispute in this turbulent context, offer their vital insights and models into "the way" forward. This pattern is echoed by the variety of products and services marketed to those who can be convinced that their quality of life will be thereby improved. Even more evident is the case made by the religious in support of the increasing role of faith-based governance -- like it or not (*Future Challenge of Faith-based Governance*, 2003).

The argument is then expressed in terms of the access of the faithful to "Heaven", especially for the "Chosen", possibly awaiting a prophesied Messiah. This is especially well-articulated for Christians (*I am the way, the truth, and the life: no man comes unto the Father, but by me*, [John 14:6](#)). Intriguing in this context is the much-cited requirement of becoming "childlike" (*It is to those who are childlike that the Kingdom of the Heavens belongs*, [Matthew 19:14](#)).

In this context, the argument here is a further exploration of conflicting worldviews and the perspectives they offer. In an effort to comprehend the advocated "childlike" criterion, it is inspired by a possible confluence of insight into cognitive development in earliest childhood (the [genetic epistemology](#) developed by Jean Piaget), the geometric speculations of mathematicians regarding dimensionally constrained perspectives (*Flatland, Flatterland, Sphereland, The Planiverse, Spaceland, The Dot and the Line: a romance in lower mathematics*, etc), and the metaphorical use of geometry in the strategic articulations of governance ("points", "lines", etc).

The concern is however with the cognitive embodiment of such dimensional simplicity -- on the assumption that explication of higher dimensionality is packed implicitly (and confusedly) into comprehension of lower dimensionality, beyond what can be "meaningfully" expressed formally. This approach is seen as consistent with a richer engagement with the numbers one and zero, especially in the light of their strategic connotations and the experiential challenges of "nothing" and the integrative implications of "one" -- as discussed separately (*Nothing, naught, nought and zero*, 2011).

The argument recognizes that there is little consideration of the "dimensionality" of any conventional "worldview" or indeed of any strategic "vision". Indeed these are typically required to be "simple" in order to be comprehensible and communicable. By contrast fundamental physics argues through [string theory](#) for the necessity of a worldview based on 10 dimensions of space and one of time. As discussed separately, there is little effort to reconcile such conflicting demands on comprehension (*Global Brane Comprehension*

[Enabling a Higher Dimensional Big Tent?](#), 2011).

Given that "confidence" is a common requirement for religious faith, viable strategies, and mathematical proof, the question is then whether there is a case for a science of any form belief (*Mathematical Theology: Future Science of Confidence in Belief*, 2011). Can the "childlike" requirement be understood cognitively as one of "getting back into" the most fundamental perspectives ("*ab origine*") erroneously discarded in the course of the process of conventional education and acculturation -- as with "throwing out the baby with the bathwater" ***? Are the conventional formalisms of science, especially fundamental physics, to be considered as forms of cognitive "overdevelopment" through which the implications of the primary strategic preoccupation with "points" and "lines" are effectively trivialised -- with dangerous loss of functional significance?

This would then imply that the worldwide quest by cosmologists for insights into the development of the astrophysical universe ("*ab origine*") could well be a form of unconscious "displacement" or surrogate. The "real", or more generic, challenge might then be understood as that posed by the beginning of the cognitive universe -- as implied by the necessary return of the salmon to its point of origin. Reference to this process is variously made and deprecated through any individual quest for "source" or "roots". Such a beginning is of course collectively recognized in the *Dreamtime* of the Australian Aborigines -- a framework curiously echoed in a recent review of the emergence of current insight into physical reality (Stephen Hawking, *The Dreams That Stuff Is Made Of: the most astounding papers of quantum physics -- and how they shook the scientific world*, 2011).

It is in this sense that the conventional quest for any *Theory of Everything*, for a *Philosopher's Stone* or for a *Holy Grail*, may distract from the quest for comprehension of a strangely simpler and more paradoxical nature -- or be a powerful metaphor of it. Might "reality" as commonly conceived be understood, to some degree, as an illusory "Theory of Everything" ***. The cognitive implication of "childlike" could then indeed be an indicator, as with the more fundamental cognitive significance of "health", "home" or "humanity" -- of which so many are deprived. Possibilities are suggested by the work of Douglas Hofstadter (*I Am a Strange Loop*, 2007), as previously discussed (*Sustaining a Community of Strange Loops: comprehension and engagement through aesthetic ring transformation*, 2010).

Requisite childlike cognition for integration of "heaven"?

There may be value in revisiting learning capacity of children at the earliest age to gain understanding of a proactive modality easily lost through adaptation to the conventional cognitive modalities readily understood as the primary requirement for survival. The exploration is encouraged by religious injunctions held to be significant in relation to faith-based government, especially of Christian inspiration. These can be usefully reframed in relation to more general understandings of access to "Heaven", whether understood in religious or secular terms, as an integrative expression of the highest values of which humanity can conceive. The argument is developed separately (*Requisite Childlike Cognition for Integration of "Heaven"?* 2012) and includes the following sections:

- [Ultimate strange attractor: "Heaven" ?](#)
- [Achieving "Heaven" through renewal of childlike cognition?](#)

If "Heaven" is to be understood as the ultimate, integrative ordering of human values, it is fruitful to consider it through the subtleties of the dynamics of a *strange attractor* (*Human Values as Strange Attractors*, 1993). Efforts to provide visual renderings of the highest orders of *group symmetry* discovered by mathematics echo intuitive appreciation embodied in rose windows and other religious architecture.

Strategic identification of "The Way"

As noted above, it is characteristic of leaders, even expected of leadership, to propose a "way" forward to a brighter future -- if not to "heaven" and a "promised land". As vital insights and models, they may well be presented as the "only way", even articulated as "my way" by certain leaders. Typically in dispute in this turbulent context, the promoters include leaders, politicians, management gurus, consultants, and coalitions of every kind. Characteristically they are unable to reconcile their preferred route with that of others (and completely uninterested in doing so). For each it is a case of being "*with us or against us*" -- or being framed as dangerously misguided, as separately discussed, most notably in relation to US foreign policy (*Us and Them: relating to challenging others*, 2009).

It is becoming increasingly remarkable how this pattern is echoed in the worldwide marketing of products and services -- provided the need for them can be elicited by some means. The role of "science" in framing such strategic needs has been especially significant (Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, 2010). Curiously "science" has no "scientific" process for "striking off the register" those held to be "unscientific", nor for reconciling scientific approaches in dispute.

The challenge is well-formulated by Nicholas Rescher (*The Strife of Systems: an essay on the grounds and implications of philosophical diversity*, 1985), who concludes:

For centuries, most philosophers who have reflected on the matter have been intimidated by the strife of systems. But the time has come to put this behind us -- not the strife, that is, which is ineliminable, but the felt need to somehow end it rather than simply accept it and take it in stride.

Again as noted above, articulation of "the only way" acquires particular significance in the case of religions with their increasing influence in faith-based governance and the righteous framing of "*just wars*". Following "the way" is then expressed in terms of ensuring access of the faithful to "Heaven", especially for the "Chosen", possibly awaiting a prophesied Messiah. This is especially well-articulated for Christians (*I am the way, the truth, and the life: no man comes unto the Father, but by me, John 14:6*). This is necessarily to be associated with the above-mentioned requirement of becoming "childlike" (*It is to those who are childlike that the Kingdom of the*

Heavens belongs, *Matthew 19:14*).

Curiously conventional science, despite its condemnation of religion as mere suspicion, can be recognized as acquiring behavioural characteristics in practice that bear a strange resemblance to those of religion. Through the promotion of its methodology as "the only way", science can itself be understood as trapped in the patterns it deprecates in religion, as previously discussed (*End of Science: the death knell as sounded by the Royal Society*, 2008). Current anticipation of imminent discovery of a Theory of Everything could even be understood as a need for a form of ultimate cognitive closure in imitation of that of religion. More generally it can be said that any exclusive worldview can be seen in this light, especially when there is neither capacity nor motivation to explore more inclusive frameworks (*Guidelines for Critical Dialogue between Worldviews*, 2006).

It is also curious that any articulation of "the way" typically precludes any possibility of more appropriate ways emerging in the future -- whilst necessarily denying the relevance of alternatives articulated by others at the present time. Briefly this pattern could be usefully deprecated as defensively "childish", rather than creatively "childlike" in the sense explored above.

The immediately foreseeable consequence of this trend is a global civilization in which many constituencies formulate "The Way" from their particular viewpoint -- but with little ability to communicate that framework with any degree of credibility (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009; *The Consensus Delusion*, 2011; *Ungovernability of Sustainable Global Democracy?* 2011).

Cognitive implication in geometrical metaphors in articulation of "The Way"

Metaphor: Strategic insights, principles, proposals and targets are typically articulated through metaphorical use of the simplest elements of geometry, as discussed separately (*Engaging with Globality -- through cognitive lines, circlets, crowns or holes*, 2009; *Geometry of Thinking for Sustainable Global Governance: cognitive implication of synergetics*, 2009; *Metaphorical Geometry in Quest of Globality - in response to global governance challenges*, 2009).

As discussed in that connection (*Cognitive Realignment: making points and aligning a target*, 2009), "points" are made in arguing the case and distinguishing necessary components. Known as "bullet points", the process is notably enabled through the software application **PowerPoint**. Any confusion is then challenged by the question "what is the point"? Much is made of developing a clear "line" of argument and of adhering to the "party line" -- or the "line of duty" (US Department of the Army, *Line of Duty Policy, Procedures, and Investigations*, 2008). Strategic differences and opposition are typically framed in terms of the "polarization" of the dynamics -- tending to demonisation in a faith-based context. The situation is well illustrated by the framing offered by Renaud Girard (*Increasing Danger of War Through Incomprehension between United States and Iran*, *Le Figaro*, 24 October 2007):

It must be acknowledged that in connection with the Iranian nuclear question a single line is now taking shape, and it is that of confrontation. It is as though two crazy trains were rushing headlong towards each other on the same track, without anyone being able to halt them or divert them onto a different track.

The use of such metaphor extends to the circle (*Cognitive Circlets: learning/action cycles*, 2009) and to some degree to three-dimensional geometry (*Cognitive Crowns: all-encompassing, well-rounded experience*, 2009).

The trajectory of an initiative is expected to be "straight" and may be recognized as devious if "curved" (as in throwing a **curve ball**). It is in contrast to such a perspective that proposals are now made for a "circular economy" (CE), as articulated by Felix Preston (*A Global Redesign? Shaping the Circular Economy*, Chatham House, 2012)

In today's economy, natural resources are mined and extracted, turned into products and finally discarded. While the recycling of waste and measures to improve efficiency can both help to reduce the need for extraction of raw materials, this remains a fundamentally open, linear system, and one likely to place unsustainable demands on the environment in the medium term. In a CE, the resource loop would be closed, so that large volumes of finite resources (metals and minerals, for example), are captured and reused.

Preston notes the challenge for "thinking" by stressing that:

Moving towards the CE will require a paradigm shift in the way things are made - putting sustainability and closed-loop thinking at the heart of business models and industrial organization... Yet in practice, scaling up the concept of a CE raises political economy questions that were not historically the focus of thinking in this arena and are only starting to be explored.

Mathematical speculation: As noted above, the argument here is inspired in part by the fictional speculations from a geometric perspective regarding dimensionally constrained perspectives:

- Edwin Abbott Abbott: *Flatland: a romance of many dimensions* (1884)
- Norton Juster: *The Dot and the Line: a romance in lower mathematics* (1963) [animation]
- Dionys Burger: *Sphereland: a fantasy about curved spaces and an expanding universe* (1965)
- Ian Stewart:
 - *Flatterland: like Flatland, only more so* (2002)
 - *The Annotated Flatland: a romance of many dimensions* (2008)
- A. K. Dewdney: *The Planiverse: computer contact with a two-dimensional world* (2000)

- Rudy Rucker: *Spaceland: a novel of the fourth dimension* (2003)

What might be considered surprising is the total **lack of consideration of the cognitive implications of such reflections -- serious or otherwise -- for the use of geometrical metaphors in strategy articulation**, despite the work of George Lakoff and Rafael Núñez (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2000). The in habitual use of "romance" from the perspective of a discipline with the least capacity or inclination to understand romance is itself cause for reflection, given the fundamental importance of strategy in romance (*Reframing the Dynamics of Engaging with Otherness: triadic correspondences between Topology, Kama Sutra and I Ching*, 2011). Ironically, in this connection, the *New Scientist* journal has instigated an online dating service for its readers.

Technomimicry: In combination with the insights of genetic epistemology, the question is whether such reflections provide clues for the "reverse engineering" required to elicit the creative adaptability of the "childlike" understanding discussed above and elsewhere (*In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007). Given the surprising admission that physicists can fruitfully "dream", what is the nature of the "dreamtime" from which more appropriate global strategies might emerge (Stephen Hawking, *The Dreams That Stuff Is Made Of: the most astounding papers of quantum physics -- and how they shook the scientific world*, 2011; Stephen Hawking, Abner Shimony, Nancy Cartwright, and Roger Penrose, *The Large, the Small, and the Human Mind*, 1997). How then might the world of real people be more appropriately "shook"?

The approach follows from the argument previously made for consideration of technomimicry, namely deriving significance from patterns articulated for "technical" purposes, in this case from the formal logic of mathematics and its applications (*Engendering a Psychopter through Biomimicry and Technomimicry*, 2011). The focus here is on how new insights for thinking "in the moment" can be derived from formal geometric structures (points, lines, etc), especially given a widespread intuitive application of some of those insights in strategy articulation. How might these apply to the articulation of worldviews and the strategic "visions" of leadership?

Unexplored riches of geometry: It is of course the case that mathematics has developed a vast formal array of sophisticated tools and insights. From this array, those considered intuitively significant for strategy are seemingly the simplest (points, lines, etc), effectively those which are most primitive in the articulation of mathematics and its applications. Cognitively however, it is these 0 to 2-dimensional structures which are the primary focus in strategy articulation. They are also evident in various forms of accounting, notably in game-playing of every kind -- scoring "points". Such usage is effectively completely unreframed by the potential of richer and more complex forms of geometry -- currently considered unnecessary to the articulation of cognitive life.

The concern in what follows is that **far more complex and subtler cognitive insights are in fact implicit in the simple forms to which reference is made in common discourse**. The formal explication of higher dimensionality by mathematics may then be "packed" implicitly into such cognitive engagement with the forms of lower dimensionality -- as partially implied by the insights, from the perspective of a physicist, by David Bohm with regard to an **implicate and explicate order**, notably as elicited and developed in his dialogues with Jiddu Krishnamurti (*Wholeness and the Implicate Order*, Routledge, 1980; *The Ending of Time*, 1985). It is the cognitive implication of such "simple" packing which may relate more closely to those of the "childlike" modality discussed above.

Missing the point? Ironically it is this sense that the preoccupation of fundamental physics and string theory with the 10-plus dimensional nature of reality may be "missing the point". It might be understood as a form of cognitive "overdevelopment", ungrounded in the psychological reality in which the challenges of governance and conflicting worldviews are articulated and addressed.

It is in this sense, with respect to strategies relevant to the future, that the above-mentioned question by Terence Deacon may be asked: **have we been looking in the wrong places for clues?** Especially problematic is the sense in which **strategic articulation is trapped in oversimplistic geometric metaphor -- unable either to engage with its "childlike" cognitive potentials or to benefit from richer metaphors based on the formal development of that geometry by mathematics**. (*Metaphoric Entrapment*, 2002; *Metaphoric entrapment in time: avoiding the trap of Project Logic*, 2000; *In Quest of Uncommon Ground: beyond impoverished metaphor and the impotence of words of power*, 1997).

Equally ironical, for those individuals variously obliged by their circumstances to engage experientially with "nothingness", this may well involve a form of navigation of "cognitive hyperspace" to which physics is only just endeavouring to give comprehensible form -- as separately discussed (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011).

Experience of cognitive implication in fundamental geometry

The question raised here is why particular geometrical forms are widely "felt" to be cognitively appropriate in the articulation of certain patterns of psychosocial action. Why are these simple forms borrowed metaphorically in this way and, since this is the case, why is similar use not made of more complex geometrical forms -- potentially in more appropriate response to the complexities of psychosocial challenges?

It is useful to recognize the metaphorical use of these forms as somehow providing convenient templates for attention and its "deployment". They somehow enable attention to be appropriately configured under particular circumstances. Whilst these are often of a very practical nature, it is clear that in their use in symbols they offer a means of anchoring subtleties and abstractions.

The concern here is how understanding is framed and molded in discourse by appropriation of a particular geometrical form as a template for a thinking process. This preoccupation is of particular concern with regard to the articulation of the **draft agenda** and outcome of the forthcoming **United Nations Conference on Sustainable Development** (Rio de Janeiro, 2012) in the light of the original **Earth Summit** (Rio de Janeiro, 1992) and its asystemic action plan in the form of **Agenda 21**.

The approach here follows from the pioneering efforts of cognitive psychologists **George Lakoff** and **Mark Johnson** (*Metaphors We Live By*, 1980; *Philosophy in the Flesh: the embodied mind and its challenge to western thought*, 1999). The focus on geometrical forms can

be understood as related to the later explorations of George Lakoff and Rafael E. Núñez (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2001).

The following argument develops themes previously explored (*Geometry of Thinking for Sustainable Global Governance*, 2009; *Metaphorical Geometry in Quest of Globality*, 2009; *Engaging with Globality: through cognitive lines, circlets, crowns or holes*, 2009; *Geometry of Organizations, Policies and Programmes*, 1992). This is partially inspired by the emphasis on geometry in the work of Christopher Alexander (*The Nature of Order*, 2003-4).

The forms used metaphorically are discussed separately (*Experience of Cognitive Implication in Fundamental Geometry: unexamined metaphoric framing of strategic discourse*, 2012). They include:

- Comprehension framed by "Point"
- Comprehension framed by "Line"
- Comprehension framed by polygons: "Triangle", "Square", etc
- Comprehension framed by "Circle"
- Comprehension framed by "Cylinder"
- Comprehension framed by polyhedra: "Tetrahedron", "Cube", etc
- Comprehension framed by "Sphere"
- Comprehension framed by "Torus"

The argument is an invitation to a much more systematic treatment. This is consistent with the argument of Christopher Alexander for an approach based on geometric adaptation (*Harmony-Seeking Computations: a science of non-classical dynamics based on the progressive evolution of the larger whole*, *International Journal for Unconventional Computing*, 2009) as discussed separately (*Harmony-Comprehension and Wholeness-Engendering: eliciting psychosocial transformational principles from design*, 2010).

As indicated, the metaphorical use of the geometric forms above suggests the need for a focus on a "language" complementary to that of "literacy" and "numeracy", namely one that might be termed "formation". This would be a "language" offering insight into the manner in which form emerges and is recognized -- especially with respect to the frameworks through which strategy is articulated. Faint echoes of this are to be found in preoccupation with "formation flying" and in military formations -- both being ironically characteristic of parades -- as with the formations characteristic of some team sports.

It is curious that "points" remain the focus of agreement and disagreement in strategic discourse. Metaphorically there is a strange relationship between the "key points" of such discourse and the "notes" taken to record it in the "minutes" of the meeting -- in the light of an implicit shift to the use of musical metaphors. In a quest for "harmony", emphasis is placed on the "tone" of the meeting, possibly enabled by a "keynote speaker" -- but without any recognition of the forms supportive of that "harmony" and meaningful to the "audience". This justifies Alexander's argument for more extensive geometry-based *Harmony-Seeking Computations* (2009) -- and for exploration of the relation of geometrical insight to the sense of order carried by music, as separately discussed (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006; *Enabling a 12-fold Pattern of Systemic Dialogue for Governance*, 2011).

Many are faced with the question of "what's the point" of the current approach to global governance strategies based as they are on demonstrably outmoded mindsets. The concern here is what is indeed the "point" about which that question is asked.

Identity, possessive world-making and their transformation dynamics

Examples of metaphorical use of simple geometrical forms in support of individual or collective identity are provided separately (*Identity, Possessive World-making and their Transformation Dynamics*, 2012). The argument there also explores how the forms can then be used as the basis for the creation of a "world" -- enabling a "worldview" -- with which patterns of ownership and possession may be associated.

- Identity framed by geometric forms
- World-making and possession of property
- Illusory "re-cognition" of an "Other" by a particular identity/worldview"
- Transformation between modes of "thoughtful identification"
- Forms of transformation: geometric vs. resonance

The following table indicates the forms considered here, as well as other consideration of how they condition comprehension(*Experience of Cognitive Implication in Fundamental Geometry: unexamined metaphoric framing of strategic discourse*, 2012).

Forms conditioning comprehension		
Identity (elsewhere)	World-making (elsewhere)	Comprehension (elsewhere)
point-related identity	point-world	point-framed comprehension
line-related identity	line-world	line-framed comprehension
surface-related identity (2-dimensional)	polygon-world	polygon-framed comprehension
	circle-world	circle-framed comprehension
volume-related identity (3-dimensional)	cylinder-world	cylinder-framed comprehension
	polyhedron-world	polyhedra-framed comprehension
	sphere-world	sphere-framed comprehension
	torus-world	torus-framed comprehension
higher dimensionality		

Further consideration is given below to the [dynamic framing of identity within a torus](#) in relation to those above.

Openness and closure in pattern language: geometry versus resonance

The challenge of interweaving of openness and closure is explored separately (*Openness and Closure in Pattern Language: geometry versus resonance*, 2012) in the following sections:

- [Pattern of ways of knowing](#)
- [Fruitful "marriage" of modes](#)
- [Focus on the brightest "stars" and stellar evolution](#)
- [Closure, openness and complementarity](#)
- [Decisive illusion and cyclic engagement](#)

Metaphorical insights from the patterns of academic disciplines

The use of a particular metaphor from physics, as a means of articulating understandings of openness and closedness in support of individual or collective identity, is explored separately (*Metaphorical Insights from the Patterns of Academic Disciplines*, 2012) in the following sections:

- [Patterns of abstraction](#)
- [Semiophysics?](#)
- [Pay-back time for free-riders?](#)
- [Disciplines susceptible to fruitful "mining"](#)
- [Confrontation of alternative mappings](#)
- [Metaphorical interpretation](#)
- [Magic square symmetry](#)
- [Pattern reconciliation](#)
- [Archetypal morphologies](#)
- [Catastrophic questions](#)
- [Cognitive identification with boundary logic?](#)

There the argument is based on the assumption that there is a need to find ways to comprehend and engage with more complex patterns, as discussed previously (*In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007; *Conditions of Objective, Subjective and Embodied Cognition: mnemonic systems for memetic coding of complexity*, 2007). From that perspective there is then a case for exploring the complexity as articulated and integrated within the [standard model of particle physics](#). It should be emphasized that the concern is with human capacity to think about complex intertwining patterns, not with what is thereby patterned -- whatever the potential implications of isomorphism.

In the of spirit technomimicry (mentioned [above](#)), it is therefore interesting to explore how the [standard model of particle physics](#) -- the epitome of aspirations to conceptual closure -- might be used as a template through which to suggest a cognitive modality embodying both openness and closure. Such an exercise could be understood as an exploration of patterns of cognitive significance, following the insights into "pattern language" in designing a desirable "place to be", as articulated by Christopher Alexander (*A Pattern Language*, 1977) and discussed separately (*5-fold Pattern Language*, 1984).

*** How are disciplines addressing the condition of those faced with nothing?

*** [Examples of Integrated, Multi-set Concept Schemes](#), 1984

Engaging with Everything: emergence of paradoxical forms of identity

This possibility is explored separately (*Engaging with Everything: emergence of paradoxical forms of identity*, 2012) in the following sections:

- [Introduction](#)
- [Complementary fishy stories](#)
- [Framing strategic vision](#)
- [Identity within a torus](#)
- [Paradoxical forms of observer identity](#)

Pointlessness, unboundedness and boundaries

The nature of pointless is explored separately (*Pointlessness, unboundedness and boundaries*, 2012) in the following sections:

- [Introduction](#)
- [Pointlessness](#)
- [Unboundedness and limits](#)
- [Perverse unboundedness](#)
- [Boundary logic](#)

The existential paradoxes with which people are now faced are mapped to a degree by geometric forms like the Klein bottle. The condition is at a conjunction of subjectivity and objectivity, as separately discussed (*∫ Defining the objective ∞ Refining the subjective*

?! *Explaining reality ∞ Embodying realization*, 2011). Some are then obliged to function in a "twilight world", if they can (*Living as an Imaginal Bridge between Worlds: Global implications of "betwixt and between" and liminality*, 2011).

Emerging significance of nothing

This possibility is explored separately (*Emerging significance of nothing*, 2012) in the following sections:

- [Introduction](#)
- [Implying nothing](#)
- [Inevitability of nothing](#)
- [Physics of nothing](#)
- [From "point-making" to "world-making"](#)
- [Containing the uncontainable](#)

Configuring the varieties of experiential nothingness

There is therefore a case for a further exploration of a possible reframing of cognitive despair in the face of the outcomes of highly questionable strategic initiatives, past, present and as currently envisaged. The despair is necessarily both planet-wide and highly personal (*Implication of Personal Despair in Planetary Despair*, 2010). The condition can be described as a form of cognitive "ground zero" -- a sense of pointlessness notably articulated through recognition that the future offers "nothing", especially for those reduced to "nothing" by a combination of factors, as separately discussed (*Reintegration of a Remaindered World*, 2011).

This possibility is explored separately (*Configuring the Varieties of Experiential Nothingness*, 2012) in the following sections:

- [Varieties and dimensions of experiential nothingness](#)
- [Comments on experiential nothingness and somethingness](#)
- [Experimental configuration of nothingness as an "eightfold way"](#)

¿ Embodying a way round pointlessness?

The argument above has endeavoured to reframe the tendency to identify a strategic "way" -- "The Way". Such a way was associated with a "line" and, by implication, with the limitations of linear thinking. The many strategies formulated in this way suggest the need to configure them for greater coherence -- whether as edges of a polygon (in two dimensions) or of a polyhedron (in three dimensions). With the increase in the number of "linear" strategies configured in this way, the configurations approximate progressively to a circle or a sphere (respectively) -- conventionally associated with higher orders of integration.

The argument is developed separately (*¿ Embodying a Way Round Pointlessness?*, 2012) in the following sections:

- [Visual representations of numbers and their cognitive implication](#)
- [Cognitive "x-factor" bridging between linear and circular modes: \$\pi\$](#)
- [Enabling cognitive engagement between linear and circular: \$\pi\$ as an aesthetic catalyst](#)
- [Strategic implication of \$\pi\$ through polygonal approximation to a circle](#)
- [Cognitive implication of polygon circumsphere and incircle in strategic implementation](#)
- [Implication of \$\pi\$ through strategic approximation of a polyhedra to a sphere of globality](#)
- [Cognitive implication of polyhedron circumsphere, insphere and midsphere in strategic implementation](#)
- [Enabling a reconciliation between one and nothing: \$\pi\$ and the mysterious Euler identity](#)
- [Body knowledge: understanding without proof](#)
- [Embodying openness in a toroidal dynamic](#)
- [Spiralling around "nothingness" and "pointlessness": the implication of phi](#)
- [Recognizing the "point" and reframing "nothingness": discontinuity and surprise](#)

Conclusion

Pillars and Clouds: Global society currently favours as metaphoric vehicles the extremes of the "pillars" of strategic initiatives and transference into the "cloud" of the organization and dissemination of knowledge and values. The "international community", to the extent that it can be held to "exist", periodically issues injunctions and appeals ("from the clouds") -- a process usefully described as "Jovian". Some "thunder" and "lightning" may briefly follow -- possibly with devastating consequences for some.

The contrast between the two metaphors is indeed extreme. The first recalls the configuration of pillars celebrated as an innovation of the megalithic period in the case of [Stonehenge](#) (dating from 3100 BC) (*Towards Polyhedral Global Governance: complexifying oversimplistic strategic metaphors* 2008).

Strangely the Stonehenge pillars highlight a mode of organization that points metaphorically to an approach that continues to be valued. Beyond the simplistic, linear configurations (the "pillars" in current global initiatives), the pattern of Stonehenge emphasizes the circular. There is of course "nothing" within the concentric circular formations and the configuration appears mysteriously "pointless". It could be argued that, seen in this light, the falling pillars of Stonehenge provide a powerful metaphor of the inability to respond effectively to "nothingness" and "meaninglessness". The circle does however remain a much-favoured pattern of social organization, from circle dancing to round tables of the wise. Arguably however the incomplete circle of the UN Security Council table layout might be recognized as implying a question mark.

In the clouds: Curiously, to the extent that it exists "in the clouds", the [international community](#) can be well-described by the jargon phrase as being typically "[in a flat spin](#)". As a response to global challenges, this is a metaphorical echo of the meteorology of the "hurricanes" and "whirlwinds" by which crises -- as of the financial system -- are experienced. Reference is commonly made to the "[winds of change](#)".

Curiously the meteorological metaphor is not pursued further -- notably in order to benefit from the detailed insights of meteorologists into the dynamics of "climate change" (*Climate of Change Misrepresented as Climate Change: insights from metaphorical confusion*, 2008; *Climate Change as a Metaphor of Social Change*, 2008). It might indeed be said that global society is characterized by numerous amorphous cloud formations variously moved by wind patterns -- whose dynamics over the globe are only slightly recognized, if at all. Strategists might readily be described as having their "head in the clouds". And yet powerful computer initiatives are in process of development, in a manner somewhat analogous to those for meteorological research, to mine the cloud for insights into such movements -- most notably in the interests of "security" ([Sentient World Simulation \(SWS\)](#), [FuturICT](#)).

The mystery is how such amorphous psychosocial organization might be structured globally, even as a self-organizing system, to engage strategically with globality. "[Cloud computing](#)" is of course highly organized in terms of computers and telecommunications. By comparison it can only be said that psychosocial organization is characterized by many cloud formations -- with isolated clouds floating here and there as a delight to the eye of public relations. Could the [typology of cloud formations](#) and weather patterns be applied to such phenomena (cirrus, nimbus, etc)? Is it in those terms that a local response to the local and individual experience of "nothingness" and "pointlessness" is to be expected? A questionable comparison with ballooning is even appropriate (*Globallooning: Strategic Inflation of Expectations and Inconsequential Drift*, 2009).

Beyond the circle: The argument above explores how, moving beyond the circle, linearity can be "married" with circularity in psychosocial organization. The challenge is that whilst circular organization is feasible locally in two dimensions, this is not a response to the global challenges necessarily best understood as three-dimensional at least.

Curiously the distinct functional roles -- which might be implied as essential to those in any circular configuration and its viability -- are poorly recognized and typically deprecated. The fall-back is then onto the linear configurations, characteristic of hierarchical and matrix organizations -- typically characteristic of unimaginative "in-the-box" thinking. More complex polygonal forms are challenged, or seemingly only reflected in the architecture housing strategic initiatives -- as with the Pentagon. Behind the scenes, this is not however the case with respect to the design exigencies for efficient organization and processing of information (telecommunications, computer memory, etc). The question is how such capacity enables engagement with globality -- and how then to enable thinking "out-of-the-box".

Polyhedral global governance? The case made above argues for the necessary incorporation of polygonal forms into the **polyhedral forms necessary to sustain global cyclic patterns**. It is such polyhedral forms, as they become appropriately multi-faceted, which provide support for spherical patterns and distinctions relevant to global engagement. As shown separately (*Cognitive implication of polyhedron circumsphere, insphere and midsphere in strategic implementation*, 2012), these forms enable distinctions between the:

- "circumscribed sphere", associated here with the highest and most integrate values and principles, in terms of which global initiatives are undertaken
- "inscribed sphere", associated here with what such strategies are able to contain in practice "on the ground"

The argument was made that these are typically conflated in politically rhetoric and "spin", which is then curiously better placed as an "intersphere" between them. More intriguing is the sense in which these concentric "spheres" are consistent (respectively) with any philosophical distinction between "spirit", "body" -- and "soul". It is with respect to these "spheres" that the "two-dimensional" circular psychosocial dynamics are better "re-cognized" in terms of their global implications as crises.

Embodying nothing: With respect to the intention of this exploration, it is within such spherical geometry that the challenge of "nothingness" and "pointlessness" is more fruitfully framed according to the argument above. It also invites reflection on the nature of the "space" in which "quality of life" is sustained and experienced -- especially in contrast to the "soullessness" variously decried with respect to institutions (*Challenge of "soullessness" -- beyond the "pillar-ization of Europe"*, 2004) or to the lack of a "[human face](#)" of IMF initiatives, as framed by UNICEF (1987). Might some be even said to have "sold their soul", as in the case of UN

Whatever the forms selected as templates for organization of any kind, these are best understood as "transitional objects" between which a harmonious pattern of alternation has yet to be found. They are all containers for "nothing", but it is only through such "resonance" between alternatives that the containment is effectively ensured, as argued by comparison with that of plasma in fusion reactors (*Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing*, 2006). Such structures can frame the locus of "the point", effectively "pointing" to it, but they cannot give it form.

Design: In a period in which Greece, and its culture, are a focus of preoccupation as a potential catalyst of global economic disaster and collapse, it is ironically appropriate to recall the gifts of that culture to the founding myths of global civilization. With respect to the themes of the above argument, Greece is notably recognized for its innovative contribution to geometry, democracy and design (*Greek Inventions, Including: Analog Computer, Democracy, Euclidean Geometry, Golden Ratio, Ballista, Archimedes' Screw, Antikythera Mechanism, Dome*, Hephaestus Books, 2011).

If the present is to be considered a crisis in the interpretation, comprehension and development of these innovations, it is worth noting how those insights might be reframed in the light of the principles they embody. Thus with respect to:

- geometry: attention has focused strategically on the linear, without considering the functional implications which the Greeks associated with the polyhedral form of the dodecahedron as a cognitive holding frame exemplified by the Dodekathion, as the best approximation to the globality of the sphere
- design: attention has indeed focused on the aesthetics of design -- with use of the golden ratio -- in every domain featuring the

tangible. Little, if anything, is said of the requisite design with respect to the intangible psychosocial domain in which an elusive harmony and quality of life is held to be most desirable -- and the focus of a desperate quest.

- democracy: the quest for "democracy" is acclaimed as a worldwide preoccupation and ideal. However it is widely recognized to take various forms experienced as inadequate to collective aspirations and governance-- whether global or otherwise.

The above argument "points" to an opportunity in the current global crisis. It suggests a way "round" a crisis induced by linear thinking of various kinds. As an example, imaginative innovation might be sought through use of "correlative thinking" with respect to all three together -- inspired by duly proportionate openness to an otherwise currently challenging culture, namely that of China (A. C. Graham, *Yin-Yang and the Nature of Correlative Thinking*, 1986).

Democratic governance: The provocative design challenge is that of "democracy" itself -- given the current widespread unrest across cultures, loss of faith in governance, with further exacerbation expected in the future (*Abuse of Faith in Governance*, 2009). In the quest for "proportionate representation", what attention has been given to the need to "co-relate" all these innovations from ancient Greece and the possibility of doing so?

Currently the focus is on ensuring confrontation between "majority" and "minority", as an exemplification of the triumph of linear thinking, or on the elusive ideal of consensus (*The Consensus Delusion*, 2011). Is there the possibility that the variously oriented polyhedral sides can be used to indicate ways of configuring a requisite variety of political "sides" in a "globally" integrative manner?

Critically relevant examples are offered by:

- economic inequality: where clearly the "have nots" constitute a majority in any vote
- inequality of influence: where clearly the "haves" benefit from greater weight in any vote

For the resultant design to be considered as an appropriate "attractor" according to "aesthetic" criteria, should thought be given as to how best to embody the golden ratio? The Parthenon, as the ancestral "home" of democracy, had the golden ratio deliberately incorporated into its design -- but seemingly not into its function. It is the possibilities of designing new insights into "harmony" into psychosocial functions which are suggested by the geometrical preoccupations of Christopher Alexander (*New Concepts in Complexity Theory*, 2003; *Harmony-Seeking Computations*, 2009), as separately summarized (*Harmony-Comprehension and Wholeness-Extending*, 2010).

Embodying ambiguity in pattern language: To this challenge, subsequent reflection suggest the relevance of the Euler "enigma" on which so much of the operation of complex global systems now depends -- but without the capacity to understand its meaning within the conventional thinking developed since the time of ancient Greece -- as with other "metrics" variously implicated in current crises (*Uncritical Strategic Dependence on Little-known Metrics*, 2009). There would however appear to be a possibility of recognizing the manner in which ancient China has offered appropriately ambiguous insights -- encoded and metaphorically interpreted -- into the relation between the "unity" and "nothing" embodied in that Euler identity. It is by those that global governance and individual experience is challenged. The "x-factor" in the Euler "enigma" is therefore indicative of imaginative interpretation -- echoed, as argued, by "childlike" experience.

The argument used the construction of the Fibonacci spiral, with the aid of classical Chinese patterns of binary coding of "1" and "0", to relate these concerns to those of governance -- whether of society or of the individual. The pattern honours the strategic dilemma by which all are confronted -- with seeking to resolve it.

The approach taken here is therefore to argue for a form of pattern language in which these matters can be more fruitfully discussed. In so doing it implies a shift beyond the conventional triadic approach.

Transition pathways between linear and circular: A concluding argument focused on the geometry of the **clothoid** (or Euler spiral) as a widely applied means of ensuring smooth transition between linear and circular in transpiration networks (*Orbiting Round Nothingness across Communication Space: possibility of an "Inter-other Transition Network"*, 2012). The suggestion was that this form offered insights of relevance to the analogous psychosocial challenge and the need to reframe assumptions regarding the linearity of relationships and links in communication in order to ensure their viability for appropriate transfer of meaning between contrasting worldviews. In the light of insights from orbital mechanics, this was seen as a way of enabling an "Inter-Other Transition Network" by analogy to the currently researched **Interplanetary Transport Network**.



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