



laetus in praesens

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7 January 2019 | Draft

Comprehension of Unity as a Paradoxical Dynamic

Metaphors reframing problematic engagement with otherness

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Introduction

The continuing quest for some form of unity is evident in many domains. It is however striking that enthusiasm for unity in any one domain typically precludes any consideration for that of another. The relation between the domains tends to be problematic, if not characterized by deprecation and condemnation. This may extend to recommendations that the other be eradicated as a threat to achieving a more appropriate form of unity.

Obvious examples include the unity associated with divinity as the primary aspiration of any religion -- in long-standing conflict with other such religions, possibly specifically framed as "evil". Science may aspire to another form of unity, whether explicitly or by inference. Science and religion typically deprecate the limitations and mistaken assumption of each others approach. Politicians, notably as expressed by their national leadership, frequently call for unity -- possibly as a feature of "being great again". This may well imply that those opposing a particular strategic agenda should cease their opposition. This typically extends to total condemnation of those proposing alternatives, notably extremists of any kind -- with discourse justifying their suppression and eradication by some means.

The realm of economics and finance tends to frame unity through forms of development and globalization and the integration to which these lead -- irrespective of the progressive control of resources by the few and possibly to the questionable point of framing their role as essential to unity. Technology pursues increasing unity through the integration of infrastructure, most notably through information and control systems -- whether understood as the internet of things or emergence of a global brain. The military frame unity through effort towards full spectrum dominance facilitated by development of intelligence and surveillance capacity -- forms of coherence typically enabled by the framing of threat from elsewhere.

As indicated, the quest for unity in any domain is associated with condemnation of any undertaking which is perceived as a threat to the preferred condition. The condemnation tends to take dynamic form, whether in a continuing process of vituperative discourse and invective (typically evident in parliamentary assemblies), or in strategic efforts to undermine and disparage any initiative by the other. History offers many instances of violent suppression of the other. This process of condemnation and marginalization takes other forms between the sciences -- seemingly just as handicapped in reframing their processes in order to elicit a higher order of unity from that dynamic. Each cultivates a worldview in which the absence of the other would be a significant characteristic of unity -- as best to be understood. Failing some such eradication, the emphasis is placed on the desirability that any other should agree to the promoted worldview and desist from a posture of disagreement. Agreement is a kind of surrogate for unity -- an implication that it has been achieved in some measure, or a precondition for the quest for any unity of a higher order.

The question here is whether there are more meaningful clues in the increasingly desperate quest unity -- one dynamically understood such as to subsume less fruitful forms of agreement and disagreement, each being necessarily perceived as having its limitations. Or is

unity, as currently promoted, best recognized as an illusion -- a mirage indicative of intuitive insights for which an adequate articulation has yet to be found?

Desperate calls for unity

Appeals for unity: At the time of writing, presidents of countries have been making New Year speeches with their characteristic appeals for unity and indications of hope for the future. That of the Pope is typical of this mode. It is however extraordinary to note the degree of division within the leading developed countries of the world -- a division even described as "poisonous. Ironically the phenomenon can be recognized within all the Permanent Members of the UN Security Council.

That of Emmanuel Macron of France merits particular attention at this time given the unprecedented popular uprising of the *Gilets Jaunes* ("Yellow Vests"), as discussed separately (*Systemic Function of Highly Unrepresentative Minorities: recognizing the role of the "Dark Riders" of social change*, 2018). The movement has been especially critical of the governance of his regime and is notable for the silence by which he had responded to it over a number of weeks. Commentators see that uprising as consistent with popular discontent variously expressed world wide.

Deprecation of extremes: Without naming the *Gilets Jaunes*, Macron condemned extreme elements who sought to speak "in the name of the people" (*Macron delivers law and order message in New Year's speech*, BBC, 31st December 2018). Readily interpreted as a criticism of a movement with which 60-80% of the population had expressed sympathy, he asserted: *In fact they are only the spokespeople of a hate-filled mob and they target elected politicians, the security forces, journalists, Jews, foreigners and homosexuals*. In declaring that, *it is quite simply the negation of France*, his speech endeavoured to frame the policies of his technocratic regime as the panacea for all social ills -- as might be expected.

Radical confusion: Especially curious is the confusion in France (in use of French) between interpretations of "radical" and "radicalisation", as discussed separately (*Unexplored ambiguity of "radical" and "radicalisation"*, 2018; *Radical Innovators Beware -- in the arts, sciences and philosophy Terrifying implications of radical new deradicalisation initiative in France*, 2016). There is seemingly a fundamental contradiction between recent declarations by French authorities:

- **condemning radicalisation**, on the one hand: *Ceux qui veulent radicaliser le mouvement trouveront toujours face à eux une République qui se tient debout* (Benjamin Griveaux, *Le Soir*, 5 January 2019; *Le mouvement des "gilets jaunes" ...pour ceux qui restent encore mobilisés, est devenu le fait d'agitateurs qui veulent l'insurrection et, au fond, renverser le gouvernement* (Benjamin Griveaux: 4 January 2019; *Violences, dégradations... Peut-on parler d'une "radicalisation" du mouvement des "gilets jaunes" ?* (FranceInfo, 17 November 2018)
- **recognizing the need for more radical solutions**, on the other: *Nous devons être encore plus radicaux dans nos méthodes* (Benjamin Griveaux: 4 January 2019). This follows from previous proposals by French politicians for more "radical" approaches, as notably articulated by **Francois Fillon**.

Polarization and surrealism: This characteristic polarization is a phenomenon valuable to the following argument, as with Macron's assertion that: *In recent years, we've engaged in a blatant denial of reality*. This denial could be considered an aspect of the surrealism with which global governance is increasingly associated (*Surreal nature of current global governance as experienced*, 2016). The calls for "calm" in the face of unrest and physical violence are necessarily suspect in that it is under conditions of calm that instruments of **structural violence** may be most readily implemented by authorities.

Noteworthy is the extent to which the protagonists in the French crisis accuse each other of "instrumentalisation": *Le mouvement des "gilets jaunes" instrumentalisé à travers le monde* (RTS, 6 December 2018); *Le gouvernement et les médias instrumentalisent la tragédie de Strasbourg contre les Gilets Jaunes* (Info-Alsace-Actu, 12 December 2018).

Blame-gaming: The evolving crisis, with dramatic images of violence and destruction, raises the controversial question of who benefits from such violence in a democratic society -- according to the classic question (*Cui Bono?*):

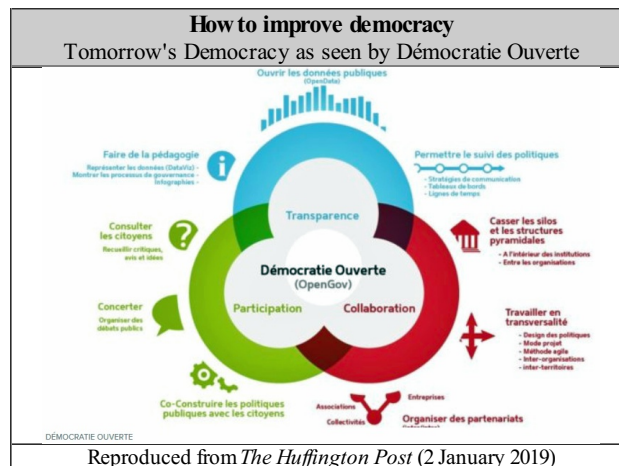
- **the Gilets Jaunes?** To the extent that, as many commentators have noted, without the violence by "rogue elements" (which the *Gilets Jaunes* have widely condemned) the uprising would have been ignored (as noted with respect to orderly demonstrations in the past by trade unions)
- **the authorities?** Using evidence of acts of violence by some as an attack on "democracy", as a means discrediting the uprising as a whole (despite the widespread support for the *Gilets Jaunes*). To what extent is it then in the interest of authorities (or their own "rogue elements") to enable violence for which the authorities cannot then be blamed? As in the case of the *Gilets Jaunes*, can the authorities that this has not been an option?

Achieving consensus: The appeal for unity is typically associated with a call for "consensus" and the need for "agreement". Other than the implication that disagreement should be suppressed or withheld, there tends to be little understanding of what such consensus implies. The process is currently fundamental to the response sought to the challenge of climate change. In the case of France, Macron is instigating a *Grand Débat National*, for which he has determined the themes, explicitly designed to ensure the emergence of consensus (*Grand débat national: "On pourra parler de tout, c'est un débat de solutions"*, RTL, 4 January 2019). It has been asserted that the conclusion of the nation-wide process will be defined as "consensus". Members of the *Gilets Jaunes* have already indicated that they will boycott the process because of its inadequacies.

Little has been said of the tools to enable such national consensus, with the exception of the useful summary by Gregory Rozieres (*Les outils qu'il faudrait au Grand DÉbat national pour résoudre la crise des gilets jaunes*, *The Huffington Post*, 2 January 2019). This notably refers to use of the internet, **crowdsourcing**, and artificial intelligence, as has been recommended in relation to previous emergencies (*Enabling Collective Intelligence in Response to Emergencies -- illustrated by the case of deep oil spill containment*, 2010).

Despite the regime's technocratic image and commitment to digital communication, little mention is made of such possibilities in the media regarding the organization of the debate -- the focus being on ensuring that mayors throughout France open "books" in which citizens can offer feedback.

The summary by Rozieres includes the following 3-fold image of some relevance to this argument:



Technology enabling emergence of coherence? Remarkable, if not incredible, has been the seeming total incapacity of the French intelligence services to "make sense" for the regime of the causes variously voiced by the *Gilets Jaunes* on social media and in many interviews. This would seem to indicate that the capacity to "listen" (widely acknowledged, if not deplored) is in no way matched by any capacity to "hear".

Despite the quite remarkable and continuing TV coverage of the diverse perspectives by [La Chaîne Info](#) (LCI) regarding the *Gilets Jaunes* crisis, it is amazing that available technology has not been used to analyze the ongoing debate and refresh issue maps of the concerns raised, and their interrelationships -- to which participants in the debate could refer. This is in striking contrast to the use of analogous technology to analyze football games and passing patterns therein (Marcus A DiBernardo, *Professional Soccer Passing Patterns*, 2014).

The failure to deploy any technology to enable "hearing" to take place for the benefit of all has been paralleled by repeated complaints by authorities that the *Gilets Jaunes* do not have a leader to formally present concerns according to processes which authorities have long found it easy to ignore.

Three-fold patterns: Particularly useful to the following is the articulation by Macron of three "wishes", possibly to be understood as commitments: *Firstly a vow of truth: we do not build anything on lies... My second wish is a vow of dignity...* On the third vow of *hope*, he noted that: *We can do better and we have to do better (Macron expresses three wishes in New Year's address (Xinhua, 1 January 2019).* Critics have already contrasted those vows with the threefold motto of the French Republic, a slogan of the French Revolution from which it emerged: *Liberty, Equality, Fraternity (France Diplomatie).*

The perception of those patterns -- as articulated and tested with respect to patterns in "external" material form -- may thus be held to derive from "internal" patterns of thinking. Such a possibility has been extensively argued, from a cognitive psychological perspective with respect to mathematics more generally, by [George Lakoff](#) and [Rafael Nuñez](#) (*Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2001). Of relevance is whether there is an underlying generality to patterns systemically understood, as was the original focus of *general systems theory* and the *Society for General Systems Research* (Ludwig von Bertalanffy, *General System theory: foundations, development, applications*, 1976).

Unity and consensus as paradox or riddle?

This argument is essentially a further development of that made previously (*Engaging with Elusive Connectivity and Coherence: global comprehension as a mistaken quest for closure*, 2018).

Reductionist understanding of unity? In a society readily understood to be complex and confusing, there is something suspiciously simplistic about "unity" as it is promoted by leaders. It implies a challenge to any sense of diversity which is then recognized, if at all, in oversimplistic terms. It could be said to imply that everyone needs to agree -- essentially with the perspective from which unity the appeal for unity is made. This is then not to be called into question.

Unity understood in this way could be considered to be the avoidance of questions. It tends to be accompanied by the severest of sanctions against those holding other views. These are all the greater when any consideration is given in a religious context to a binary understanding of deity, as in the case of the heretical framing of Gnosticism.

Riddle? The challenging experience of the contradictions of society suggests that governance, whether of global civilization or locally, could be fruitfully explored as a riddle, as separately argued (*Global Governance as a Riddle: But is a solution the answer to the question?* 2018). Many are now effectively invited to "juggle" with solutions to the challenges by which they are confronted, inviting exploration of that metaphor (*Governance as "juggling" -- Juggling as "governance": dynamics of braiding incommensurable insights for sustainable governance*, 2018).

Paradox: Science offers clues to the nature of unity which call for an appreciation of [paradox](#) -- of which many are cited and assiduously explored (see [List of paradoxes](#)). Any current understanding of reality could be said to be "riddled" with paradoxes. Most obvious in engaging with any unified understanding is the paradoxical framing of the solidity of matter -- as best understood as both wave and particle, according to the [Uncertainty Principle](#). The question has been asked as to whether an analogue applied in other domains ([Garrison Sposito, Does a generalized Heisenberg Principle operate in the social silences? Inquiry, 12, 1969](#)).

Rather than the simplistic appeals of leaders to an oversimplistic comprehension of unity, there would seem to be a strong case for one which embodies a degree of paradox. It can therefore be understood as a riddle with which civilization is obliged to engage, whether or not a "solution" is readily assumed to be found. Science encourages this posture, religion and politics tend to find it abhorrent since they tend to promote ready-made understandings of unity inviting unquestioning agreement.

Varieties of unity? One approach to the challenge is to recognize that, paradoxically (as might be expected), there are indeed many understandings of unity and many approaches to integrative comprehension. One effort to profile these was a feature of the [Integrative Knowledge Project](#) which identified some 600.

Unity is not necessarily as well bounded as conventional exercises in definition would have it. It may be inherently resistant to definition - - other than by assertion. Unity may well be understood as problematically overdefined in practice (Overdefinition***)

Boundedness of unity: Ironically these issues can be illustrated by a country and its citizenship. Boundaries of countries offer difficulties in themselves. Those dwelling there may be citizens or not, especially when many citizens of that country may dwell elsewhere. Members of a diaspora may have a right to vote wherever they dwell -- or this may be restricted to residents. Some may have multiple passports identifying them as citizens of various countries where they may be variously resident, or not. Cognitively, given the migration crisis, a degree of osmosis across any boundary can be explored ([Cognitive Osmosis in a Knowledge-based Civilization: interface challenge of inside-outside, insight-outsight, information-outformation, 2017](#)).

Inspired by the imagination of astrophysics, it can be asked what is the [shape of the universe](#) to be framed by some understanding of unity. Alternatively the biblical metaphor of a flock may be used, given the remarkable dynamic unity demonstrated so elegantly by any flock of birds through their [flocking behaviour](#).

Comprehensibility of values: Upheld as a value, comprehension of unity poses similar problems to comprehension of other values. Should it be assumed that values are inherently comprehensible? This challenge was a feature of the Human Values Project which suggested that there significance could be better recognized through value polarities. The elusive nature of any value, including unity, may be more appropriately respected through considering them as "strange attractors" of some kind ([Human Values as Strange Attractors, 1993](#)). A degree of admission of incomprehension and ignorance may be appropriate, thereby allowing for the insights of the future and those of other cultures. ,

Paradoxical integration: As a challenge to Western-inspired dominance of understandings of unity -- dating from Aristotle -- there is a case for exploring its comprehension from a long-developed Chinese perspective as an emergent influence. A valuable summary is offered by [Xiaoying Qi \(Paradoxical Integration: globalised knowledge flows and Chinese concepts in social theory, University of Western Sydney, 2011\)](#). Drawing on the philosophy of Taoism, itself in paradoxical relationship to Confucianism, Qi concludes that:

The notion of paradoxical integration entails that opposites are not necessarily mutually exclusive but that they can exist interdependently. It also indicates that opposites do not necessarily negate each other but that they may generate and produce each other. Opposites are capable of functioning in a cooperative and collaborative relationship. Instead of undermining each other they have the capacity to provide access to each other. The vitality of the notion of paradoxical integration also lies in its recognition of transformation in that opposites do not remain unchanged and that one thing may be transformed into another. The counter-intuitive relationships that constitute paradoxical integration and the concept of reversal internal to it extend and challenge conventional views concerning the lower terms of the couple "strong and weak", subverting and countering social conventions concerning established norms and rules.

Paradoxically, to what degree does comprehension of unity require a corresponding degree of integrative insight within the person or the collective seeking such comprehension? Is there a strange 3-fold mirroring and complementarity between integrative knowledge, a unitary comprehension of "globality" and human development?

Trinity of "roundnesses" framing incomprehension?

Divinity? Somewhat ironically, from a mystical perspective, the challenge of comprehension of unity is delightfully framed by the account by [Dante Alighieri](#) of the Pilgrim's "tri-ocular" vision of Paradise in the [Divine Comedy](#) -- as has been remarkably interpreted ([Arielle Saiber and Aba Mbirika, The Three Giri of Paradiso XXXIII. Dante Studies, 131, 2013; Arielle Saiber, Canto XXXIII: The Song of the Return, 2019](#)). The particular merit of this approach is the use of topology and knot theory to "unravel" the challenge of perceiving divine unity through the possibilities of comprehending the nature of three "rings" -- "roundnesses" variously to be understood in geometrical terms.

Value triads: Is any threefold articulation of the subtlest human values to be explored in this light? Liberty, equality and fraternity? Or truth, dignity and hope? The question can be asked in relation to the fundamental triadic structure of psychoanalyst [Jacques Lacan: Symbolic-Real-Imaginary](#).

When is a "triadic structure" more appropriately understood as a cycle, as separately discussed ([Triangulation of Incommensurable Concepts for Global Configuration, 2011; Paris Arnopoulos, Triple Helix ad Triadic Codex: braiding nature, culture and nurture,](#)

2000)?

Taoism: From the perspective of Taoism -- and the unity implied by notions of the Tao -- of particular relevance is the distinction of what could be understood as a triad of "roundnesses" of another kind. This is evident from the interplay of three Chinese classics, the *I Ching* (*Yi Jing*), the *Tao Te Ching* (*Daodejing*) and the *T'ai Hsüan Ching* (*Taixuanjing*). These variously stress that Heaven, Earth and Man are what comprise the Tao. Complete and broken lines are used to encode the distinctions made in the *I Ching* (as trigrams and hexagrams) and in the *T'ai Hsüan Ching* (as ternary tetragrams). Their relationship can be experimentally explored (*9-fold Magic Square Pattern of Tao Te Ching Insights -- experimentally associated with the 81 insights of the T'ai Hsüan Ching*, 2006).

Borromean rings: The relationship of Dante's rings is seen as probably best understood through the peculiar connectivity of **Borromean rings**, as discussed separately in the light of the Saiber study (*Borromean challenge to comprehension of any trinity?* 2018).

This configuration is itself of fundamental significance to the epitome of science, as the logo of the International Mathematical Union (John M. Sullivan (*New IMU Logo based on the tight Borromean rings*, 2006; Charles Gunn and John M. Sullivan, *The Borromean Rings: a video about the new IMU Logo*, 2008). The topological argument can be taken further through considering the possible dynamics of such rings in three dimensions, notably in relation to the form of the torus, itself of traditional symbolic significance through the Ouroboros (*Complementary visual patterns: Ouroboros, Möbius strip, Klein bottle*, 2017).

Negative capability: However the particular merit of Saiber's argument is the engagement with the confusion of cognitive possibilities of the Pilgrim as articulated by the poet. Whereas the argument with respect to divinity could focus solely on the "positive" (as is the convention), the Pilgrim's comprehension challenge usefully introduces the function of **negative capability**. This has been articulated by a later poet, **John Keats** as being: *when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason* (1817).

Liminality: The aesthetic merits of a degree of confusion are usefully recognized through experience of **liminality** and the reality of "confusion*" (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011; *Living with Incomprehension and Uncertainty*, 2012). Confusion is of course a primary characteristic of the global policy condition at this time. As such it calls for appreciation otherwise.

"Post-binary comprehension"? However understood, whether as "roundnesses" or "eyes", the implication is that the nature of unity in its most profoundly fruitful sense calls for a modality in addition to the binary mode so typically favoured in assertive declarations with their accompany negations. Truth is seemingly more than two-eyed for Dante, beyond the already controversial case made for two-eyed truth (*Two-eyed truth as anathema -- in a cyclopean civilization*, 2011).

Any all-encompassing unity makes demands on both binary and ternary modalities -- if not more. Traces of this recognition are evident in the appreciation of multivocal expressions, in contrast to the univocal modality so frequently viewed as essential from a particular perspective, whether religious, political, scientific, or military (Emma-Louise Aveling, et al, *A Qualitative Method for Analysing Multivoicedness. Qualitative Research*, 15, 2015, 6).

It is however appropriate to note that in a period of particular concern for loss of biodiversity, there is little understanding of the need for psychosocial diversity (*What is biodiversity and why does it matter to us? The Guardian*, 12 March 2018). However it could be readily asserted that it is only lip service that is paid to both -- to the extent that diversity is valued in practice at all.

Dynamic nature of unity and consensus?

Requisite unity: Unity is considered fundamental to modern organization, as articulated by Alan Scheffer (*Unity: The Organizational Imperative, Management Associates*, 1999):

Unity -- that collective cohesiveness, empowering alignment, and fundamental sense of oneness that can permeate an organization -- must be understood to be the beginning point, and the ultimate power behind, any organization's performance. Organizations need unity. Many have survived without it. Many have been profitable without it. But none have come close to their full potential without it. To succeed at their highest levels by any measures, organizational unity must be adopted as a pragmatic requirement and a principal based imperative requiring our committed attention.

The calls for "unity" by leaders are typically associated with calls for "mobilization" towards some end. As a rallying cry this recalls the questionable use of military metaphors, as separately discussed (*Enhancing Sustainable Development Strategies through Avoidance of Military Metaphors*, 1998). The unity-mobilization framework is seen as unquestionably appropriate to the response to climate change -- as it has been to other virtual wars, irrespective of their modest achievements (*Review of the Range of Virtual Wars: strategic comparison with the global war against terrorism*, 2005).

An associated cognitive dynamic is the overriding desire for acknowledgement by a leader -- recognition by all of "being the one". This may be cultivated by followers, even after death of the leader, notably in religions.

Dynamics of unity comprehension: More challenging is the possibility, evident in Saiber's interpretation, that unity may call for some form of dynamic comprehension -- rather than the stasis so readily associated with it, and especially with any embodiment of that unity in the nation state, as argued separately (*Dynamic Transformation of Static Reporting of Global Processes: suggestions for process-oriented titles of global issue reports*, 2013).

The nature of such dynamics featured in a keynote address to the European Parliament (A. P. J. Abdul Kalam, *Dynamics of Unity of Nations*, 2007). The matter was considered with respect to Germany alone (Judi Atkins, *The Rhetoric of Unity and Distinctiveness in*

Coalition Politics: lessons from the 2010-15 Conservative-Liberal government, Political Studies Association, 13 February 2018).

A wider ranging perspective has been offered with respect to South East Asia (*The Dynamics of Unity and Diversity in Southeast Asia: Lessons Learned?* East-West Center). Another perspective is explored with respect to the Group of 77 (Bjørnar Egede-Nissen, *Exploring G-77 Unity through Two-level Games*, 2014). Reform of China has been explored in the light of the dynamics of unity as framed by Taoism (Edward J. Romar, *Daoism as the Philosophic Foundation of Chinese Economic Reform: a Conjecture*, *Emerging Science Journal*, 2, 2018, 4). The focus may however be on the dynamics towards unification rather than on when it is achieved (Richard C. Bush, *Regional Stability in East Asia: Korean unification dynamics and China's revival*, *Brookings*, 25 January 2016).

Unity as stasis? Any static assumption regarding the nature of unity can be usefully challenged given the curious stasis seemingly attributed to many fundamental values, as argued separately (*Freedom, Democracy, Justice: Isolated Nouns or Interwoven Verbs? Illusory quest for qualities and principles dynamically disguised*, 2011). **Is there a sense in which unity itself is better understood as a verb** -- a becoming rather than an end state? In the case of any comprehension of Dante's divinity, the verb could probably be more appropriately imagined to be somehow entangled with the significance of other grammatical forms: adverb, adjective, exclamation, question, and the like. To the extent that Dante's unity is associated with Paradise, how are the dynamics of that condition to be comprehended?

Provocatively it could be argued that inability to do so suggests that Paradise and Heaven would be inherently boring to most -- and hence the preference for conflictual dynamics reflected in **infotainment**. More cynically it could be argued that the benevolent oversight attributed to heavenly entities (or the secular "1%") is better understood as continual viewing of the conflictual disarray of humanity as entertainment -- much as such is sought in daily TV coverage.

Although cynical, such framings help to highlight the challenge of the purportedly desirable outcome of sustainable global governance. What are the requisite dynamics for the global population to avoid a condition of total boredom and stasis as a consequence of universal agreement and consensus -- dynamics capable of enabling sustainable engagement? A global **SuperBow!**

Cyclic emergence of unity? What dynamic might be intrinsic to meaningful comprehension of unity? This question is curiously relevant in the light of preoccupation with **recycling** to ensure sustainability within a rapidly degrading environment. A Paradise lost? Governance is of course challenged by economic and financial cycles. Historians and social scientists note other cycles, including the rise and fall of civilizations (*List of cycles*). A case is made for the need of governance to develop skills in the navigation of an **adaptive cycle**.

There is of course recognition of the need for renewal in the process of governance, as variously embodied in statutory requirements for periodic elections. There is however a curious contrast with the desire of a government in power to keep that power -- however much its dissolution is constitutionally required to enable a mandate to be renewed. The reluctance to recognize the need for a dynamic is evident in the efforts of many leaders to modify the constitution to ensure that they retain their power. Those in power may well consider that they personally embody any necessary dynamic -- and any necessary understanding of unity. *L'Etat c'est moi* was the affirmation attributed to Louis XIV prior to the French Revolution -- a phrase subsequently associated with General de Gaulle (*L'Etat c'est moi*, *The Spectator*, 25 March 1960). Such a framing could be seen as "monocyclical governance" -- one in which monopoly is typically cultivated.

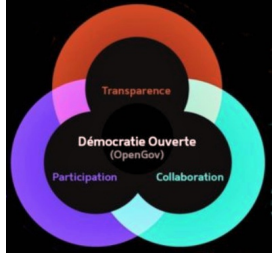
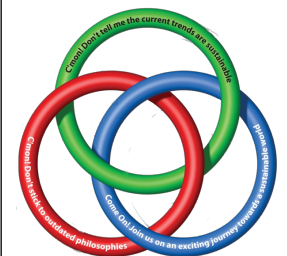
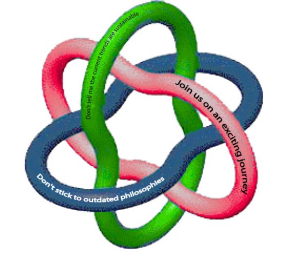
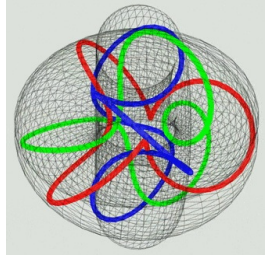
Cyclic motion of "roundnesses"? With respect to Dante's three rings (*giri*), or roundnesses, Saiber (2013) remarks:

If we read Dante's *giri* as "roundnesses in motion", what are the possible ways in which roundnesses could move? The poet certainly does not say anything specific about motion; nor does he leave any clues. Each *giro*, if flat like a circle or disc, could be turning around its own central axis like a pinwheel or frisbee; or it could be spinning on an edge like a coin dropped on a table. If the *giri* are spheres, then they could look like tennis balls with topspin.... Furthermore, the *giri* could also be partaking of multiple types of circular motion.... Many medieval theologians held that God's thought moved circularly (human thought linearly, and angelic thought in a spiral) and that to contemplate God **we too needed to set our mind moving in a circle**. (pp. 245-7) [emphasis added]

Elements of the argument can be summarized visually in the following. The image on the left is an adaptation of that presented above. The question is whether the psychosocial complexity can be appropriately held by such a depiction, as with the challenge to its comprehension. Those in the centre derive from a critical review of a recent report to the Club of Rome titled (*Exhortation to We the Peoples from the Club of Rome*, 2018). This argued the challenge of systemic comprehension otherwise. The report by Ernst von Weizsaecker and Anders Wijkman was titled (*Come On! Capitalism, Short-termism, Population and the Destruction of the Planet*, 2018).

The animation on the right featured in the earlier argument regarding the possible dynamics of three interlocking rings -- potentially in Borromean configuration -- suggesting that be more appropriately represented as a helix wrapped around a torus (*Engaging with Elusive Connectivity and Coherence: global comprehension as a mistaken quest for closure*, 2018). As explained there, the animation responded to the challenge of comprehension, notably associated with the illusory 2D depiction of Borromean rings.

Suggestive dynamics of interlocking rings			
How to improve democracy	Borromean rings suggestive of interlocking of 3-part Club of Rome <i>Come On!</i> report		3 mutually orthogonal tori
As seen by Démocratie Ouverte	"2D" variant	"3D" variant	A 3-loop helix around each torus

			
<p>Adapted from <i>The Huffington Post</i> (Gregory Rozieres, 2 January 2019)</p>	<p>Reproduced from <i>Towards a higher order of coherent global strategic organization?</i> (2018)</p>	<p>Video (mp4). Interactive virtual reality (x3d, wrl)</p>	

Use of a 3-fold helix in the animation followed from current international interest in the [Triple Helix model of innovation](#) and the merits of understanding it in dynamic terms (*Contrasting the implications of "triple helix" -- cognitive and otherwise*, 2017). Focus on a torus is one response to the question of what might be imagined to be the "shape" of a global civilization claiming universal significance (through various declarations) if a simple sphere is inadequate as a means of holding its complexity (*Embodying openness in a toroidal dynamic*, 2012; *Visualization in 3D of Dynamics of Toroidal Helical Coils*, 2016; *Toroidal cognitive container?* 2011). With respect to the [shape of the universe](#), it is appropriate to note that astrophysics has articulated a proposal for a [3-torus model of the universe](#).

Transformation dynamics from a Chinese perspective

It is appropriate to note the extent to which the Chinese classics (mentioned above) have cultivated ambiguity and allusion with a poetic flair -- rather than premature closure in over-definition. They too suggest various dynamics (encoded far more systematically by use of lines). Comprehension of the transformation between cognitive conditions, indicated only by metaphor, remains a challenge which invites continual reflection (*Transformation Metaphors derived experimentally from the Chinese Book of Changes (I Ching) -- for sustainable dialogue, vision, conferencing, policy, network, community and lifestyle*, 1997).

The above-mentioned thesis of Xiaoying Qi (*Paradoxical Integration: globalised knowledge flows and Chinese concepts in social theory*, 2011) reviews the widespread interest of management literature in the Chinese relational understanding of *guanxi* (Fang Yang, *The Importance of Guanxi to Multinational Companies in China*, *Asian Social Science*, July 2011). Although related to Western understandings of networking and social capital, Qi suggests that *guanxi* has further implications, specifically that *aspects of guanxi could be applied to existing theoretical concerns in a way that would transform them... guanxi is not only incorporated into the interior of the theory but generates a transformation of existing theory in a new way that would not otherwise have occurred*.

Although there is no single definition of *guanxi* that operates in the diverse discussion of it, there are clear lines of agreement concerning the various component aspects of *guanxi*, including agreement that *guanxi* involves a personal connection between individuals in their formation and maintenance of an interdependent relationship which follows implicit social norms, especially those of face (*mi anzi*), norms of interpersonal behaviour (*renqing* or *ganqing*), reciprocity, trust and obligation.... While *guanxi* is neither synonymous with nor a cause of corruption, if corruption occurs it is probable that *guanxi* may be one of its mechanisms. (Qi, 2011)

The challenge to the unity of many Western countries can be defined in terms of that between the "headless hearts" and the "heartless heads" (*Challenge of the "headless hearts" to the "heartless heads"?* 2018). As articulated by Paul Collier: *the debate on migration is polarised into two strident positions, a heartless and the headless (On Immigration, Head to Head: Al Jazeera, 7 August 2015; rerun on Head to Head, 18 August 2018)*.

In this context it is appropriate to note how that dichotomy is called into question in Chinese in a chapter on *xin* by Qi (*Relations of Emotion and Reason: the challenge of the concept of xin (heart/mind)*). That argument enables Qi to reframe the challenge of *Paradoxical Integration*, as mentioned above, namely the representation of opposition or polarity -- understood otherwise in Western discourse (*Oppositional Logic as Comprehensible Key to Sustainable Democracy*, 2018).

For Qi:

There is no single term in Chinese for paradoxical integration but a number of terms for specific types of paradoxical integration can be found, in keeping with the concrete as opposed to abstract disposition of the Chinese language and its concepts. Two obvious general categories, however, are readily identifiable: *xiangfan xianghe* and *xiangfan yiti*. As with many Chinese words these are composite terms. The word *xiangfan* is made up of two characters, *xiang* (each other) and *fan* (opposite); *he* (joining together or integration) is combined with these terms to produce the expression *xiangfan xianghe*, which indicates paradoxical integration. *Xiangfan xianghe* can be shortened to *fanhe*. The word *yiti* (uniting as a whole) can be joined with *xiangfan* to provide another form of the term paradoxical integration. (Qi, 2011)

The subtle Taoist framework offered by the *Tao Te Ching (Daodejing)* is used by Qi to clarify this understanding. This could be provocatively recognized as three "roundnesses" (as articulated by Saiber, 2013). For Qi:

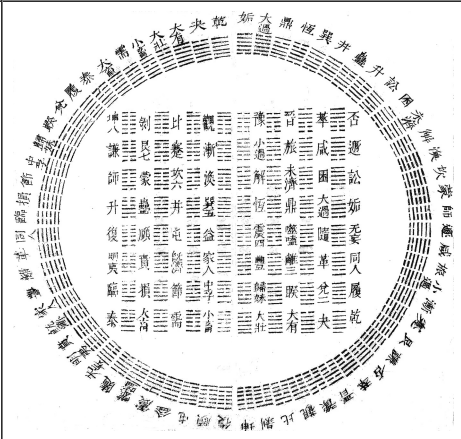
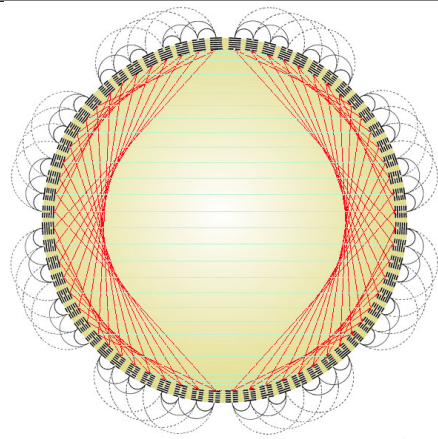
Three distinct forms of paradoxical integration are identified... These are not the only types of paradoxical integration that can be

found in Daodejing but they are the most significant for social analysis.... first, interdependency of opposites, in which one element of a pair is required for the meaning or purpose of the other element. Secondly, the paradoxical integration of generation... the paradox of one thing contemporaneously becoming something else... Finally, the paradoxical integration of reversal... those situations in which one thing provides access to its opposite. (Qi, 2011)

These distinctive forms can be recognized as encoded in the complementary classic, the *I Ching*, whose elements are variously configured. As presented below left, the diagram is a partially "cleaned" version of that sent to [Gottfried Wilhelm Leibniz](#) from [Joachim Bouvet](#) which proved to be of historical importance to the development of the binary logic fundamental to computer operations. The link provides access to the original, presented in *Wikipedia* with the following commentary:

Leibniz, who was corresponding with Jesuits in China, wrote the first European commentary on the *I Ching* in 1703, arguing that it proved the universality of binary numbers and theism, since the broken lines, the "0" or "nothingness", cannot become solid lines, the "1" or "oneness", without the intervention of God. This was criticized by Hegel, who proclaimed that binary system and Chinese characters were "empty forms" that could not articulate spoken words with the clarity of the Western alphabet. In their discussion, *I Ching* hexagrams and Chinese characters were conflated into a single foreign idea, sparking a dialogue on Western philosophical questions such as universality and the nature of communication. In the 20th century, Jacques Derrida identified Hegel's argument as logocentric, but accepted without question Hegel's premise that the Chinese language cannot express philosophical ideas.

As presented on the right, particular transformations between conditions of change, as denoted by the hexagrams, are indicated according to that coding system. Interpretative descriptions of each are provided separately (as [noted above](#)). As a pattern indicative of a dynamic understanding of unity, it lends itself to experimental animations, as described separately ([Dynamic Exploration of Value Configurations: interrelating traditional cultural symbols through animation](#), 2008). One variant is accessible in video format ([Relating cultural symbols using dynamic I Ching configuration](#), YouTube).

Examples of circular configurations of <i>I Ching</i> hexagrams	
As communicated to Leibniz (1703)	Indicating transformations between conditions
	
<p>By Unknown - Perkins, Franklin. <i>Leibniz and China: a commerce of light</i>. Cambridge UP, 2004. 117., Public Domain, Link</p>	<p>As used on this website, for which it was elaborated; further details of the configuration are provided separately</p>

A key question is of course how any understanding of paradoxical integration then enables reframing of binary approaches to the dynamic of the unity of China-Taiwan, North and South Korea, Russia-Ukraine-Crimea, Pakistan-India, or Palestine-Israel.

Rediscovering the cyclic implication of a ring?

Aspects of this argument have been developed separately in greater detail in terms of learning/action cycles ([Engaging with Globality through Cognitive Circlets](#), 2009)

"**Circulation**": Whilst a ring or other roundness may be understood as framing a perspective, there is also the question of the dynamics inherent in the ring -- which may well call into question the nature of the cognitive frame as a boundary.

The ring may rotate, for example, or, as a torus, have an inherent vortical motion (like a smoke ring). Ridiculous though it may seem, curiously there is a sense in which it seems to be necessary to "reinvent the wheel" -- or at least to recognize insights from domains where its operation is meaningful.

Arguably, despite a degree of appreciation of "global" and "globalization", it could be asserted that the strategic and cognitive implications of the wheel have yet to be fully comprehended -- at least to the degree "encoded" in technology and prefigured by it. Failure to comprehend the implications of a wheel lends itself to caricature ([Reframing the Square Wheels of Global Governance: transcending vain hopes of squaring the circle in global decision-making](#), 2017).

Given its role as an early stage in the invention of the wheel, current use of [logrolling](#) in politics and academia could be considered

indicative of constrained comprehension and the "subunderstanding" described by Magoroh Maruyama (*Peripheral Vision: Polyocular Vision or Subunderstanding?* *Organization Studies*, March 2004). One contrasting emphasis on "wheel comprehension" as a guide to coherence is offered by Arnold Keyserling. (*Weisheit des Rades*, 1985; *Atlas des Rades*, 1995).

Imagining the perspectives and insights of those who invented the wheel in the first place -- as it is now known -- offers some guidance in terms of the kinds of clues to creativity that that invention required. Do the crude experiments made to achieve any provisional result now have to be repeated in some way -- on a new turn of the spiral of collective learning? How is the turning of the wheel to be comprehended in the first place -- perhaps inspired by the Sun and the seasons, and any necessity for crop rotation (*Sustainable Cycles of Policies: Crop Rotation as a Metaphor*, 1988).

So framed, one question is **what circulates as a feature of the dynamics of any unified system** -- especially one having achieved some final form of unity -- from whatever perspective this is perceived. (*Circulation of the Light: essential metaphor of global sustainability?* 2010; *Circulation of the light: What flows? What circulates? Cryptocurrency?*, 2014). How is identification and engagement with that flow to be understood (*Psychosocial implication in circulation: circling the elusive*, 2015; *Primary Global Reserve Currency: the Con?* 2011). There is a delightful paradox to the question as to whether it is the wheel which frames the dynamic or the dynamic the wheel -- however either is perceived.

Alternation between extremes? Traces of recognition of the need for greater complexity are of course evident to a degree in rotation of leadership in organizations, notably the UN Security Council, the EU Presidency, and the Group of 20 (*Director Rotation, Investopedia*). Renewal of leadership is seen as a means of embodying change -- an exemplification of the slogan "be the change" (as adopted in relation to the [UN Sustainable Development Goals](#)).

The limited focus is however typically on being "positive" and avoiding the "negative" -- except when justified for "positive" reasons ("cannot make an omelet without breaking eggs"). There is little question that this could come to be perceived by the future as oversimplistic and naive -- and unfit for significant purpose. The point can be made in terms of cybernetics where the value of both positive and **negative feedback** is integral to any sustained control (*Being Positive Avoiding Negativity: management challenge of positive vs negative*, 2005).

Dilemmas and extremes: Missing however is any explicit recognition of how alternation enables a higher degree of empowerment. Somehow there is a need to circumvent binary processes perceived as problematic. Curiously any listing of them incorporates what can itself be qualified as inherently problematic, if not incommensurable dilemmas:

- agreement/disagreement
- rational/irrational
- good/bad
- right/wrong
- positive/negative
- attraction/repulsion

Arguably the simplest cycle is one of alternation between the extremes of any binary pair -- potentially exemplified by the corrective shift over time between political parties in power in a democracy. This could be understood as a key to development (*Policy Alternation for Development*, 1984; *Development as Discontinuous Societal Learning: Cyclic transformation of the global answer economy*, 1983; *Metaphors of Alternation: an exploration of their significance for development policy-making*, 1983). The switch from one extreme to another typically offers a sense of empowerment, however illusory and temporary, as exemplified by structural shifts in organizations between centralization and decentralization -- each successively acclaimed as a solution to corporate ills.

The rejected other is to be "eradicated" as essential to the success of the alternative modality (*Eradication as the Strategic Final Solution of the 21st Century?* 2014). Curiously the enthusiastic advocates of alternatives in any domain tend to take no account of this dilemma. They seemingly fall into the same trap as articulated through the classic slogan of Margaret Thatcher: *There Is No Alternative* (TINA). Claims for strategic objectivity are then questionable (*Considering All the Strategic Options: whilst ignoring alternatives and disclaiming cognitive protectionism*, 2009).

Engaging with multi-phase cycles sustaining coherence

As a means of reframing the binary limitation indicated above, the possibility an alternation dynamic can be extended to cycles with a higher number of phases -- to whatever degree these are recognized ([List of cycles](#), *Wikipedia*):

- **3-phase cycle:**
 - Francisco Varela offers an image of a 3-fold pattern to illustrate the cognitive cycles calling for interrelationship through the **phenomenological epochÉ** (*The Gesture of Awareness*, 1999) [see also Claus Otto Scharmer: *Three Gestures of Becoming Aware*, Conversation with Francisco Varela, 12 January 2000]
 - Mindy S. Wilson: *The Cycle Theory of Violence -- battering: a 3-phase cycle* (*Encyclopedia of Murder and Violent Crime*)
 - Lacan *** etc
- **4-phase cycle:**
 - Resilience Alliance: a 4-phase **adaptive cycle**: growth/exploitation, conservation, collapse/release, and reorganization (see [explanatory table](#)).
 - Gaurav Akrani: *4 Phases of Business Cycle in Economics with Diagram* 18 June 2011): prosperity, recession, depression, contraction/downswing. A complementary perspective is offered by Miguel Pereira Lopes: *A psychosocial explanation of economic cycles*, *The Journal of Socio-Economics*, 40, (2011).
 - W. Craig: *Appetites and aversions as constituents of instincts*. *Proceedings of the National Academy of Sciences*, 3, 1917, 12), namely a cycle of "instinctive" behaviour: appetite, consummatory reaction, aversion, freedom from stimulus
 - *4 Phases of the Project Management Life Cycle*: initiation, planning, execution, closure

- *Four-phase model of the competitive intelligence cycle* (JPK Group) planning/direction, collection/research, analysis and dissemination
- 4 seasons annual cycle
- *4 phases of the menstrual cycle*: menstruation. follicular phase. ovulation. luteal phase.
- *4 principal lunar phases*: new moon, first quarter, full moon, third quarter
- 5-phase cycle:
 - Gretchen L. Schmelzer: *Journey Through Trauma: a trail guide to the 5-phase cycle of healing repeated trauma* (2018)
 - František Bartes: *Five-phase Model of the Intelligence Cycle of Competitive Intelligence* (*Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 61, 2013, 2): planning and direction of the intelligence cycle, gathering information and conducting research, information processing and storing, intelligence analysis of information, intelligence dissemination
 - Rebecca Bernstein: *5 Phases of the System Development Life Cycle* (Concordia University, 17 March 2017); Rani Morya, *What are the 5 phases of SDLC?* (*Quora*, 13 May 2018); *The Five Phases of Systems Development Life Cycle* (Cybrary)
 - David L. Cooperrider: *5-D Cycle of Appreciative Inquiry* (AI Commons): define, discover, dream, design, deliver/destiny
 - *5 Phases of a Business Cycle*
 - *Five Phases of the Project Management Lifecycle*: initiation, planning, execution, monitoring/control, closure
 - *Wu Xing* as a classical Chinese 5-phase cycle (*5 elements theory*); *China's Five Elements Philosophy*
- 6-phase cycle:
 - Shirley Courson: *Cell Cycle: the six stages of mitosis* (16 December 2013): interphase, prophase, metaphase, anaphase, telophase, cytokinesis
 - Sampson Quain; *6 Phases in New Product Development* (*SmallBusinessChron*, 29 June 2018): idea, research, development, testing, analysis, release
 - Victoria Herocten: *The Cycle of Domestic Violence In 6 Stages* (*Success Achiever*, 3 August 2016): abuse, guilt, excuses, "normal" behaviour, fantasy/planning, set-up
 - Larry Greiner: *Greiner Growth Model* (*ToolsHero*): creativity, direction, delegation, coordination/control, cooperation, alliances
 - David Ellis: *6 Phases In The Incident Response Plan* (SecurityMetrics): preparation, identification, containment, eradication, recovery, lessons learned
 - R. Viju Nair et al: *Novel Symmetric Six-Phase Induction Motor Drive Using Stacked Multilevel Inverters With a Single DC Link and Neutral Point Voltage Balancing* (*IEEE Transactions on Industrial Electronics*, 64, 2017, 4)
 - *Revolutionary Libralato 6-phase Cycle* (*Libralto*): intake, 1st compression, scavenge/EGR. 2nd compression, power, exhaust
 - *6 Different Stages of the Business Cycle* (*Corporate Finance Institute*): expansion, peak, recession, depression, trough, recovery
 - *Six phases of project management* (*Project Management Training*): initiation, definition, design, development, implementation, follow-up
 - *Cycle of Violence* (*SafePlace*): build-up, stand-over, explosion, remorse, pursuit ("buy-back"), honeymoon
 - *Six Phases in the Crisis Communication Life Cycle* (APCO International)
- 7-phase cycle:
 - Alison Young and Terry Lockhart: *A Cycle of Change: the transition curve* (Cranfield School of Management, March 1995): shock, denial, awareness, acceptance, testing, search for meaning, integration
 - Margus Pedaste, et al: *Phases of Inquiry-based Learning: definitions and the inquiry cycle* (*Educational Research Review*, 14 February 2015)
 - Maulik Shah: *7 Phases of System Integration Life Cycle* (*BizTech*, 7 October 2014)
 - Darrell Zahorsky: *The 7 Stages of Starting and Running a Business* (*The Balance: Small Business*, 24 December 2018)
 - Wendy Connick: *How to Master the 7 Stages of the Sales Cycle* (*The Balance: Careers*, 22 August 2018)
 - Kendra Moyses: *The Emotional Cycle of Deployment* (Michigan State University. 9 January 2013): anticipation of departure, detachment/withdrawal, emotional disorganization, recovery/stabilization, anticipation of return, return/adjustment/renegotiation, reintegration/stabilization
 - Suzanne Lachmann: *The 7 Stages of Grieving a Breakup* (*Psychology Today*, 10 June 2014)
 - *7 Phases Of Software Development Life Cycle* (*Infographic*, 23 July 2018): planning, requirements, design/prototyping, software development. testing, deployment, operation/maintenance
 - *7 Phases of a Data Life Cycle* (*Bloomberg*, 14 July 2015): capture, maintenance, synthesis, usage, publication, archival, purging
 - *The 7 Stages of Marriage* (*Readers Digest*): passion, realization, rebellion, cooperation, reunion, explosion, completion
- 8-phase cycle:
 - *The eight phases of human gait cycle* (*Streifeneder*)
 - Erikson's stages of psychosocial development (Kendra Cherry *Erik Erikson's Stages of Psychosocial Development* (*VeryWell*, 29 October 2018) -- 9th phase
 - *8 principal and intermediate lunar phases*: new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, third quarter, waning crescent. Karin E Weiss: *The Goddess Wheel* (2003)
- 9-phase cycle:
 - *Phases of the Systems Development Life Cycle* (Hunter Business School, 13 April 2017): preliminary analysis, systems analysis, systems design, development, integration/testing, acceptance/installation/deployment, maintenance, evaluation, disposal
 - *Libralato Cycle* (*Cloudinary*): BDC, 1st intake, 1st compression, expansion, TDC, 2nd compression, 2nd intake,

Comprehension of complex cycles: A major difficulty is that the higher the number of phases, the greater the challenge to comprehension. Added to that is the sense in which the greater complexity itself becomes suspect, as exemplified by the zodiacal cycles considered credible by the many attaching a degree of credibility to astrology. Ironically this rejection by science is paralleled by an unexplained enthusiasm for 12-fold articulations in every domain (*Checklist of 12-fold Principles, Plans, Symbols and Concepts*, 2011). The elements in those listed are of course not necessarily to be understood as phases in a cycle.

Their comprehensibility as a system is only too readily assumed. To the extent that these are strategically significant, little consideration is given to the challenges of any commensurate patterns of dialogue which might best take cyclic form (*Enabling a 12-fold Pattern of Systemic Dialogue for Governance*, 2011).

Some 12-fold cycles recognized include:

- Thomas Armstrong: *The Twelve Stages of the Human Life Cycle* (American Institute for Learning and Human Development, 2007)
- *12 Step Program for Addiction Recovery* (*Cycles of Change*); *Why The 12 Steps Are So Effective For Addiction Recovery* (*The Treatment Center*)
- *The 12 Step Cycle of Spiritual Awakening* (*Truth Theory*, 12 July 2013)
- *12 Step Strategic Management Cycle* (*Canopus*)

The meaning of 12-fold cycles is extensively explored by Arthur Young (*Geometry of Meaning*, 1978) -- decomposed into 3-fold and 4-fold cycles. Those insights lend themselves to various adaptations of relevance to governance (*Typology of 12 complementary dialogue modes essential to sustainable dialogue*, 1998; *Typology of 12 complementary strategies essential to sustainable development*, 1998; *Characteristics of phases in 12-phase learning / action cycles*, 1998).

There are of course cycles with a greater number of phases -- whether or not the UN's Sustainable Development Goals are to be understood in cyclic terms in order to highlight their systemic relationships, as argued separately (*Interplay of Sustainable Development Goals through Rubik Cube Variations*, 2017). Arguably the Chinese classics, long considered to be of relevance to governance, distinguish cycles of 64 conditions of change (as in the case of the *I Ching*) and 81 conditions (as in the case of the *Tao Te Ching*). (*9-fold Magic Square Pattern of Tao Te Ching Insights experimentally associated with the 81 insights of the T'ai Hsüan Ching*, 2006).

Ironically circlets of prayer beads, whether of Christianity, Islam, Buddhism, or Hinduism, incorporate up to 108 beads as a mnemonic aid to a cycle of distinctive prayers (*Designing Cultural Rosaries and Meaning Malas to Sustain Associations within the Pattern that Connects*, 2000). Such circlets suggest the delightful possibility of promoting cyclic recognition in international conferences, such as those of the UN, by offering them to participants. They could well be matched by circlets of so-called worry beads (*komboloi*) to encourage cyclic insights into issues of global concern. (*Encycling Problematic Wickedness for Potential Humanity*, 2014)

Patterns of N-foldness: misleading implications of cyclic comprehension?

Experiential recognition of cycles: Whilst the previous sections suggest that many "cycles" are explicitly recognized, the concern here is how, and to what degree, they are recognized. It was argued above that the prevalence of problematic binary modes of thinking suggests that even a 2-phase cycle is a major issue for comprehension -- other than in the sense of adherents of one phase triumphing over the other, or being traumatized by defeat. This is only too evident in politics, business competition, military engagements and sport. The pattern is reflected in dispute.

The table below suggests that any cyclic comprehension may be variously "disguised" through successive focus on distinctive phases, with minimal comprehension of the cycle as a whole -- as a cycle. In this sense the cyclic significance of phases or stages is only partially understood in systemic terms -- if at all. Comprehension is fragmented, with distinct phases of the cycle attributed (delegated or relegated) to others.

Implied comprehension: Especially intriguing is the manner in which more complex "cycles" may be implied by various devices, without this complexity necessarily eliciting any higher order of comprehension. This point can be emphasized in terms of wheeled vehicles. Thus whilst 2-wheeled carts and 4-wheeled carts have been in use for many centuries, the bicycle was only invented a century ago -- as with emergence of the skills to ride it, notably requiring a particular appreciation of balance. It can be readily argued that the leadership of 2-party political systems continues to struggle to "ride" and steer the vehicle of governance and to maintain a viable degree of balance.

Appreciation of a requisite balance between the parts of a system is of course far more evident in the case of multi-part singing (notably folk groups) and within multi-instrument musical groups (from jazz bands to symphony orchestras). Whilst the interplay is naturally a matter to which participants are attentive, the emergent harmony is necessarily appreciated by any audience -- notably the cyclic patterns reinforced within the structure, whether in detail or in the work as a whole (cf Wagner's *Ring Cycle*).

Subordination of cyclic comprehension: Less evident are the examples below where any sense of cycle tends to be subordinated to an asystemic understanding of stages, steps, levels or degrees -- however these are understood to be delimited or bounded. This tends to imply development of a particular sense with little recognition of how any ultimate stage is related to the earliest. In the case of any learning process, the detachment enabling appreciation of the process as a whole -- and the connection with the initial mindset -- tends to be more apparent and cultivated at the "end" of a career. Cycles can be readily misunderstood -- as may be strikingly evident in the case of recycling.

Domains	"Phases" distinguished (below and above the experiential "glass ceiling")												
	1	2	X	3	4	5	6	7	8	9	10	12	N
	"Experiential?"		X	"Procedural?"									
governance/leadership/council	single	co-leadership	X	triumvirate	tetrarchy							"roundtable"	
N-party politics	single	2-party	X	3-party	4-party	5-party	6-party	7-party	8-party	9-party	10-party	12-party	N-party
multi-instrument music	solo	duet	X	trio	quartet	quintet	sextet	septet	octet				
multi-vocal song	solo	duet	X	trio	quartet	quintet	sextet	septet	octet				
wheeled vehicles	monocycle	bicycle	X	tricycle	4-wheel	(4+steer)	truck	6(+steer)	truck	(8+steer)	truck	truck	truck
motors/generators	single phase	2-phase	X	3-phase									
combustion engines	single	2-stroke	X		4-stroke		6-stroke/V6		V-8			V12	
propellers	single	2	X	3	4								
process stages/steps	1-step	2-step	X	3-step	4-step	5-step	6-step	7-step	8-step	9-step	10-step	12-step	
learning stages/"degrees"	1-stage	2-stage	X										
concept frameworks/sets	single	2-category	X	3-category	4-category								N-category
games	single	2-sided	X	3-sided	"4-sided"								
dance routines		2-step	X	3-step									
exercise routines													
rituals													

Given the emphasis now placed on recycling, is there any effective appreciation of the pattern of phases in cyclic terms?

Cyclic closure? It is especially noteworthy from the previous section that "systemic" understandings of any "project life cycle" are framed as a multi-stage process, but with little sense of how the final stage connects to the initial stage within what is named as a system. How is the cyclic sense of the system comprehended, and by whom? This case is also of interest in that examples are given above of project life cycles with differing numbers of phases. What does this imply with regard to the "stability" of the cycle or its comprehension in practice?

Static cycles? The cyclic sense tends to be even more diluted in the case of concept sets, more readily understood as "patterns" rather than "cycles". An exploration of multi-concept patterns is presented separately (*Patterns of N-foldness: comparison of integrated multi-set concept schemes as forms of presentation*, 1980).

Far less evident is which patterns are more appropriately understood in cyclic terms, or lend themselves to appreciation in those terms. Is a pattern necessarily to be understood as static? Where patterns are understood in systemic terms, how is the shift from one part to another to be understood in cyclic terms as a dynamic? What is the perspective necessitating a dynamic of shifts between the elements of a pattern? The question is usefully raised by the arguments of Edward de Bono for shifting between metaphorical "hats" or "shoes" (*Six Thinking Hats*, 1985; *Six Action Shoes*, 1991).

Despite being named as "cycles", the more complex systems supposedly in place are currently to be better understood as more static and acyclic -- a phenomenon disguised by devices in which cyclic patterns are implicit rather than being widely comprehended. The use of "cycle" in the previous section might even be considered a form of euphemism -- perhaps triggered by intuition. Driving a 4-wheeled vehicle does not imply any deep comprehension of a 4-phase cycle, for example. A "6-hatted" expert group -- as framed by de Bono -- does not necessarily imply comprehension of a 6-phased cycle, especially when the "hats" each see themselves as competing for dominance. The situation is even more problematic in the case of any archetypal 12-fold "Council of the Wise" for which 12-phase dialogue would seem to be an as yet unexplored mystery.

Aesthetic insights from beyond the "glass ceiling"? The argument from the above is that the challenge of cyclic appreciation is especially evident in the constraint imposed in practice by binary dynamics. In metaphoric terms, governance is clearly challenged by the process of riding a bicycle. Arguably there is a form of "glass ceiling" inhibiting recognition and management of cycles of 2-phases or more. This could be considered especially relevant to the promotion of the need for environmental recycling involving a number of phases. There is considerable irony to the parallel challenge to that ceiling by feminists, and to related issues of gender identity reframed beyond the binary in a number of legislations, as may be speculatively explored (*Global Civilization through Interweaving Polyamory and Polyanimosity?* 2018)

As noted below, there is an ironic elegance to the fact that it is seemingly in the domains of music, song, poetry, dance -- possibly together with (some) games -- that there is greater appreciation of cycles. This is also evident in appreciation of the seasons and, perhaps only too appropriately, the experience of 4-phase menstrual cycles (on which there are a multitude of references), notably in relation to lunar cycles (as noted above).

As explored below, it is striking to note the extent to which multi-phase insight is offered by certain technologies -- and implicit in their operation -- with little evidence that the cyclic insight translates in any way into other domains, or any recognition that this might be desirable. Seemingly engagement with cycles is possible through technology conceptually distant from any relevance to other domains. Such engagement can be understood as prefiguring comprehension of the implications for psychosocial systems.

Requisite technomimicry to engender "enlightenment"

Wings: The remarkable creativity and insight associated with the development of technology merits as much consideration as that which

has effectively engendered the variety of biological forms and processes. A case has been made for recognition of emergence of new technology through innovation as effectively analogous to the emergence of new biological species through mutation ([Kenneth Boulding, *Ecodynamics: A New Theory of Societal Evolution*, 1978](#)). Biological species are now enthusiastically explored for technological innovation through [biomimicry](#) and biomimetics. There is a similar case for exploring technology as a source of psychosocial innovation, as separately argued ([Engendering a Psychopter through Biomimicry and Technomimicry: insights from the process of helicopter development](#), 2011).

Just as biomimicry has been an inspiration for the development of flight, the argument can be extended to the fruitful operation of the "wings" of political systems ([Coordination of Wing Deployment and Folding in Politics: bird flight and landing as complementary metaphors of global strategic coherence](#), 2018; [Counteracting Extremes Enabling Normal Flying: insights for global governance from birds on the wing and the dodo](#), 2015).

It is appropriate to note the fundamental role of symbolic stars as indicative of unity, most notably of nations and international organizations ([Birds as national symbols of identity -- and of peace](#), 2018). That argument links their role to that of birds, both as national symbols (eagle, etc) and to a form of flight as implicitly defined ([Star symbols as schematic birds?](#) 2018).

The question is then the direction of that flight and the nature of the propulsion required ([Direction of propulsion in a global context -- as enabled by configuration of symbolic stars](#), 2018). Is "being great again" how this is best articulated? Which way is "heaven" and how is "lift-off" to be achieved?

Commutator: The [electrical commutator](#) is especially valuable in offering an indication of how power is sustainably engendered by a binary relationship -- the static magnetic poles within which rotates a ternary configuration of elements alternatively charged. Seemingly complex, as described, it is appropriate to stress the extent to which the quest for unity in practice is bedevilled by its limitation to a binary dynamic. There is little exploration of the requisite dynamics of a ternary configuration (as within a commutator) and how it might fruitfully relate to the binary dynamic.

Of particular interest is the manner in which wings are recognized as functioning, whether in the case of birds or insects, as an inspiration for the flight of aircraft, including [rotorcraft](#). The relationship between Borromean rings, each as a helix wound around a torus (dynamically configured together), can be explored as related to the operation of a commutator. This periodically reverses the [current](#) direction between the rotor and the external circuit (***)

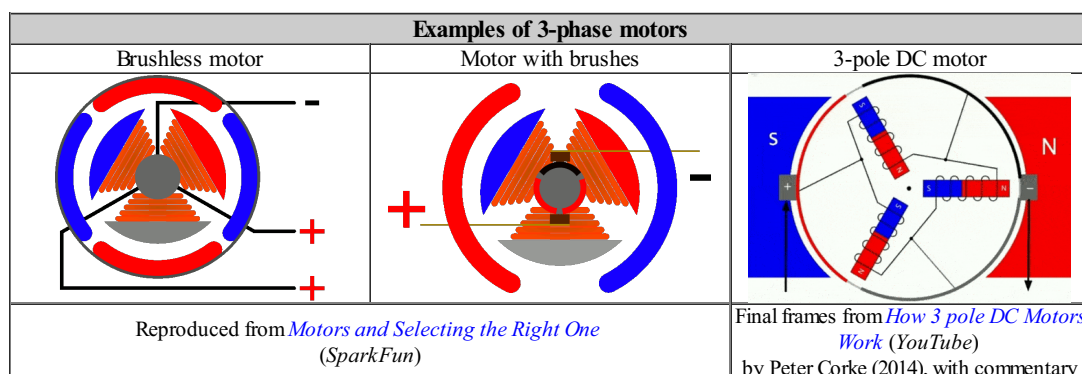
Following from the argument above, although the commutator has been invented and is fundamental to the operation of many systems, this frames the question as to how and by whom its cyclic operation is comprehended. The relative lack of comprehension can then be used as a metaphor through which the "glass ceiling" barrier to post-binary insight can be explored. This then serves as an indication of the subsequent barriers to higher orders of cyclic insight, irrespective of the degree to which the existence of such cycles is seemingly recognized explicitly (as discussed above).

The structure of the following animations can be seen as a reflection of the challenge of comprehending unity. In each case the binary and ternary relationships are encompassed by a circular framework with which cyclic operation is associated. As argued above, however, whilst verbal reference to such "unity" is frequently made, the experiential reality is associated with the polar conditions -- only too readily seen as "positive" and "negative". This distinctive labelling is made by convention. ([Barbara Ehrenreich, *Bright-sided: how the relentless promotion of positive thinking has undermined America*](#), 2009; [Smile Or Die: how positive thinking fooled America and the world](#), 2010).

The obvious challenge is the distinction between the binary dynamic, with which all are familiar, and the ternary dynamic for which technology offers an operational insight which "works". It is unclear that any analogous ternary relationship "works" comprehensibly in the psychosocial domain in a manner of relevance to governance. There is irony to the fact that governance of a 4-wheeled vehicle may be restricted to operation of the singular steering wheel

Reference can of course be made to father, mother and child -- "family values" -- but how this translates into practice is quite another matter. Arguably humanity has yet to learn from the working models it is able to create.

There are numerous available explanations, images and animations of the operation of a wide variety of motors and generators. The simplest are illustrated by the following.



Traffic: As stressed above, however, few of the explanations of electric motors and generators can readily identify their implications as cyclic processes offering systemic insights for psychosocial systems. Of potential relevance to this challenge to comprehension is traffic circulation, in which many participate daily as drivers of vehicles or as pedestrians. Given the increasing complexity of circulation, an

obvious (post-binary") challenge, with which most are familiar, is multi-route intersections and roundabouts.

The circulation problem can of course be resolved by red/green traffic signals in the simplest cases -- namely those for which binary stop/go thinking is appropriate. At more complex intersections, circulation of traffic must be phased in a more complex manner. This can be neatly framed by discussion of *Whose Turn is it? Phasing, Rings, and Barriers*.

One of the primary functions of a traffic signal is to provide a time separation between the conflicting movements at an intersection. A stop sign accomplishes the same result but leaves much of the discretion to the driver to decide "whose turn it is". A traffic signal provides clear instructions to drivers traveling through the intersection that it is their "turn to go" using an appropriate signal or display... the most commonly used method of separating conflicting movements at an intersection [is known] as NEMA (National Electrical Manufacturing Association*****) phasing. This method assigns numbers to each of the four left turn and four through movements, and provides a logical process through which each of the movements is served in turn. Each movement is controlled by a phase (or "timing unit"), and eight phase numbers account for the basis of a NEMA phasing plan. Left turn phasing is of particular importance, particularly the determination of whether a left turn should be protected (indicated by a green arrow) or permitted (indicated by a flashing yellow arrow or a green ball).

For the purposes of this argument, it should however be emphasized that those circulating "in the traffic" may have little or no awareness of the thinking which is enabling their movement in this way -- with optimum fluidity. This appropriately recalls the issues of governance in which "whose turn is it" tends to be handled in a remarkably primitive manner. Collective acceptance of such inadequacy is indicated by video coverage of the process by which Members of the UK Parliament indicate their desire to speak -- by standing at the end of the intervention of any other member (reminiscent of children in class seeking permission to go to the toilet). Clearly other rules for circulation come into play in relation to priority traffic -- especially for VIPs.

There is a certain charm to the fact that the question of "*whose turn is it*" has been rendered comprehensible to a far higher degree through music, song and dance than it has in governance. This is even the case when "music", "song" and "dance" are used as metaphors to describe the interplay between the actors in sociopolitical systems.

As in the case of motors and generators, there is a sense in which the challenges of traffic circulation have engendered far more inventive response, integrated into the technology, than has been considered desirable in the case of any form of governance. The array of traffic signs merits exploration from this perspective (*Being in the Flow on Strategic Highways and Byways: enabling sustainable self-governance through traffic signage*, 2011). The latter discusses the following issues:

Signage for sustainable self-organization?	Prohibitory or restrictive traffic signs	Information signs for traffic
Insights into "flood navigation" from road signs?	Mandatory traffic signs	Direction signs for traffic
Danger warning signs for traffic	Special traffic regulation signs	Hazardous condition of drivers
Traffic priority signs		

Switching: Fundamental to the examples of motors/generators, and to traffic circulation, is the management of switching. As noted, extensive comprehension is evident in the interplay between actors in music, song and dance. In principle it is evident in the shift between political parties as a consequence of elections. In practice this is frequently highly problematic with the party in power seeking by every means to "hang on". This pattern is reflected in conference speaking when an orator may endeavour to "hold the floor" longer than is appropriate.

There are clearly ways of recognizing and ensuring "whose turn it is" which are far from being adequately embodied in governance, even when they are vital to enabling greater coherence and unity. Especially regrettable is the manner in which what amounts to a perverted form of "switching" is employed, whether deliberately or inadvertently. This is most evident in processes of denial or blame by which the justification of switching to any alternative is inhibited (*Collective Mea Culpa? You Must be Joking! Them is to blame, Not us!* 2014; *Exclusivism: gerrymandering, question avoidance, denial*, 2013; *Denial of the negative*, 2005).

Related to this is the process of deliberate marginalization, as notably practiced by centre parties against right or left wing extremes -- as is extraordinarily evident in the supposedly democratic systems of France and Germany. Any alternative may then be stigmatized through use of image management techniques and institutionalization of media bias (*Vital Collective Learning from Biased Media Coverage: acquiring vigilance to deceptive strategies used in mugging the world*, 2014).

** radical

** *The implicit 'switch' metaphor*, 1990

** (*Electrical Systems as a Guiding Metaphor for Stages of Group Dialogue*, 2001)

Enlightenment / Empowerment vs Endarkenment / Disempowerment?

There is great irony to the extent to which metaphors associated with generators and motors are fundamental to strategic aspirations to enlightenment and empowerment. The irony lies in the fact that so little insight is sought from the technology which enables light and power to be generated -- and without the slightest suggestion that more effective governance might thereby be engendered. The pattern has been evident with respect to the rate of uptake of communications technology in conferences -- with a lag of many years, if not decades. Are decision-makers essentially of *Luddite* persuasion?

Quest for harmony: The pattern is however evident from a different perspective. Calls for unity are frequently accompanied by calls for harmony. The domain with potentially the greatest insight into harmony is that of music and song -- long a preoccupation both in theory and practice. Both music and song are especially valuable in the appeal that they have for those from whom a mandate for governance is expected.

It is of course the case that countries and major institutions may adopt and cultivate an **anthem** -- upheld as the exemplification and embodiment of shared values. Whilst participants in formal conferences may dutifully listen to such anthems, there is not the slightest effort to elicit further insight from the understanding through which they have been composed and performed, as separately argued (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006).

Enabling change through aesthetics: Does the challenge of climate change not justify eliciting an appropriate anthem or epic, much as is done annually in the case of the **Eurovision Song Contest**? In a period of crisis, is there then a provocative case to be made for reversing such works, as with the reversal of flags to indicate emergency (*Reversing the Anthem of Europe to Signal Distress: transcending crises of governance via reverse music and reverse speech?* 2016). It could of course be argued that the performances which are most celebrated at the Eurovision Song Contest already offer a signal of distress with which people can identify -- as with *Troy* from Israel (2018), or *Lordi* from Finland (2006).

It could even be asked whether any trinity of "roundnesses" are usefully to be understood as engaging together in which might be better framed as a strange dance.

In relation to the argument for ring comprehension, the experience of harmony through "**ringing true**" offers a challenge to "fake news" circulating in the media and the "**sounding brass**" of political declarations. Why would the special issue of a military periodical on violent non-state actors consider it relevant to include an article entitled *Ringling True or Ringling Hollow?* (*Army*, August 2013, by **James M. Dubik**?).

Extremes as magnetic poles? Given the crisis in global governance, there is a case for carefully exploring the systemic insights associated with the thinking of a person such as **Nikola Tesla**, most closely associated with the revolution in technology enabling enlightenment and empowerment (*Reimagining Tesla's Creativity through Technomimicry: psychosocial empowerment by imagining charged conditions otherwise*, 2014).

In a world bedevilled by the incapacity to manage oppositely charged conditions of "positive" and "negative" more creatively, it is remarkable that efforts are not made to draw upon his demonstration of possibilities in practice -- from which many now benefit.

As with metaphoric borrowings from electrical technology, it is curious that use is widely made of "poles" in a world variously described as monopolar, bipolar or multi-polar, potentially to be understood as a challenge which could be resolved by reducing the condition to a monopolar one.

This quest can be caricatured as that of major powers in their effort to dominate each other and subsume all others. However governance in that world is also held to be severely challenged by "extremes". There is no sense in which such extremes and poles invite more creative interpretation in terms of the very extensive electrical understanding of such matters and the dynamics that they can fruitfully engender.

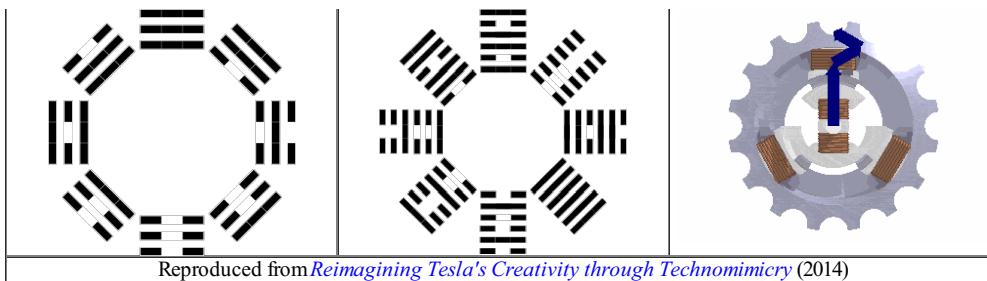
Dynamic configurations: There is a further irony in that one of the most insightful approaches to binary relationships, and their reframing, derives from the traditions of a culture now renowned for its own capacity for self-renewal, namely the binary encoding system which has been an early inspiration to computer operation. The encoding is that of the Chinese *I Ching* of which a subset is the so-called *BaGua* mirror. It is this which bears a curious relationship to the configuration of wiring, magnets and transformations essential to the operation of electrical generators and motors. The case is reinforced by the importance traditionally attached to that encoding with respect to governance in China, inviting its interpretation according to contemporary themes (**)

Rather than endeavour to develop that argument through text, as in the previous document, the point can perhaps be more succinctly made below through the animations presented therein. In this respect it is noteworthy that many of the relevant configurations and requisite movements of motors and generators depend for their comprehension of visualization rather than text. The point is specifically made with respect to the new **Libralato Engine**:

The Libralato engine has a revolutionary new 9-phase cycle, with all 9 phases completed in each rotation of the engine. The cycle is complex to explain and sequence due to the dynamic formation and exchange between three distinct chambers working in parallel (intake, compression and expansion).

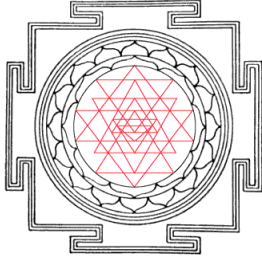
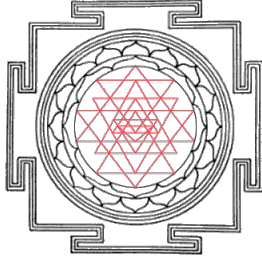
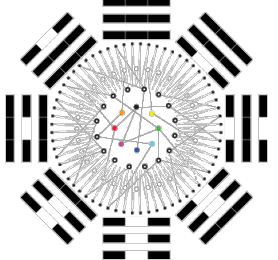
Are there forms of democratic governance which call for animated presentations rather than static images? Or are all proposed innovations of a simplicity which is now proving inadequate to purpose?

Configurations of trigrams and hexagrams from the Chinese <i>I Ching</i>		Magnetic field and vectors from 3-phase coils
BaGua Earlier Heaven Arrangement Rotating clockwise	Later Heaven Arrangement (static inner ring) with outer ring in same sequence rotated around it in a clockwise direction thereby expressing the total set of 64 hexagrams	(animation reproduced from <i>Wikipedia</i>)



Reproduced from *Reimagining Tesla's Creativity through Technomimicry* (2014)

It is curious to note the extent to which diagrams from other traditions are indicative of related insights which merit exploration. Those on the left below are adaptations of the [Sri Yantra](#) of the Hindu tradition.

Animated adaptation of the Sri Yantra of Hinduism	Arrangement of Patents/Inventions	
Animation through 8 phases	Experimental 3-phase animation of classic Sri Yantra (core "wiring" configuration passes through 3 phases)	Exploratory Animation but with rotation of a cognitive "field" of a hypothetical inner "mapping" of key patents with their derivatives
		
Reproduced from <i>Reimagining Tesla's Creativity through Technomimicry</i> (2014)		

Binary dynamics: The point to be stressed by these animations is that light and power -- enlightenment and empowerment -- derive from a dynamic. Rather than "light" being held to be especially associated with the "positive" statically understood, every electrical system demonstrates that it derives from an alternation between "positive" and "negative" (an alternation ensured through many innovative variants). The widespread quest for the exclusively positive does not engender the light with which it is assumed to be associated -- except in problematic metaphoric equivalents to static electricity and lightning strikes.

The challenge for governance is how to reframe dynamically the negative rather than engage in its eradication, as noted above (*Eradication as the Strategic Final Solution of the 21st Century?* 2014). The future may perceive the focus on eradication as comically equivalent to an effort to reduce all electrical wiring from paired wires to a single wire -- "eradicating" the negative wire, as systemically questionable as eradicating negative feedback (as is characteristic of some leadership situations).

The electrical models indicate how contacts and charges need to be made and broken -- **cyclically** -- effectively through alternation. It is in this sense that enlightenment/empowerment stands in polar opposition to endarkenment/disempowerment. The dynamic is especially evident in any cycle of four seasons, or in patterns of crop rotation, for example. Curiously both endarkenment and disempowerment have long been associated with acquisition of new insight (*Enlightening Endarkenment: selected web resources on the challenge to comprehension*, 2005).

A degree of such recognition is recognized when failure is valued as offering a possibility of learning -- rather than to be avoided at all cost (Amy C. Edmondson, *Strategies for Learning from Failure*, *Harvard Business Review*, April 2011; *10 Things to Learn From Failure*, *Power of Positivity*; *Tesla as an extraordinarily instructive experimental failure*, 2014). *** follow

Unity within a quantum framework: Physics and technology are now challenging conventional binary thinking from a quantum perspective. For physics this is an aspect of the quest for a unified *Theory of Everything* -- "heaven" as it might be comprehended by a physicist. The relevance to governance has been remarkably articulated by an eminent scholar of international relations (Alexander Wendt, *Quantum Mind and Social Science: unifying physical and social ontology*, 2015). As noted separately, Wendt specifically calls into question the very nature of nations states and other global entities. As discussed separately, he provocatively indicates that people are usefully to be recognized as "walking wave functions" (*On being "walking wave functions" in terms of quantum consciousness?* 2017). Rather than "walking", their recognition in that light might be understood in terms of "standing waves".

Given the power requirements of the future, there is considerable investment worldwide in nuclear fusion with its particular call on insights from a quantum perspective. Implying a curious challenge for "positive thinking". activation energies for the required fusion reactions are generally high because the protons in each nucleus will tend to strongly repel one another, as they each have the same positive charge. To ensure the necessary interaction, a minimal distance of approach is made possible by high temperatures and **magnetic confinement**. It is under such conditions that the nuclei are increasingly likely to undergo **quantum tunneling** past the **electrostatic** barrier and the turning point where the **strong nuclear force** and the electrostatic force are equally balanced, allowing them to fuse.

This high temperature confinement is notably explored in the **International Thermonuclear Experimental Reactor** (ITER). 18 toroidal field coils are used to constrain movement of the plasma through the torus.

The quality of thinking invested in the design of such reactors -- as a primary hope for future empowerment of global civilization -- suggests that its consideration as a metaphor should be carefully considered (*Enactivating a Cognitive Fusion Reactor: Imaginal*

Anthropocene -- Anthro-scene -- Anthro-seen: a speculative conclusion

Anthropocene: The urgency of the global challenge of [climate change](#) on the planet has been framed in terms of an [Anthropocene epoch](#), one in which there is significant human impact on the Earth's geology and ecosystems. This preoccupation has tended to obscure the nature of the impact of related imminent disasters to which humans are as yet relatively indifferent, such as the loss of [biodiversity](#) and the massive extinction of species (also known as the [Anthropocene extinction](#)).

Whilst this framing encompasses issues on which there is quest for consensus, unity and mobilization, there is a case for recognizing its problematic dimensions as an abstraction for many -- even though it is within this domain that humanity is most fundamentally "grounded".

Anthro-scene: In contrast, there is a distinctive preoccupation by collectivities, most notably nations states, with globalization and globality -- possibly associated with "being great again" or "full-spectrum dominance". As a collective psychosocial dynamic this could be caricatured as the Anthro-scene. It is associated with the unquestionable competitive commitment to space travel -- "getting to the stars" and the quest for alien life (*Challenges More Difficult for Science than Going to Mars*, 2014).

So framed this includes aspirations by science to the advancement of human knowledge at all costs (epitomized by the lure of the [Theory of Everything](#)), or the aspiration of religions to convert all to the coherence of their universal belief (as with the [Great Commission](#) or its equivalent). This can be recognized as the cognitive locus of the "academic scene", the "business scene", the "media scene", the "security scene", together with the "policy scene" in which future scenarios are articulated. It is the realm of the international community and its national counterparts.

Potentially to be recognized in terms of viewing the human drama, the term has already been used, as for example:

- *AnthroScene: The SLSA Book Series* (Penn State University Press, published in collaboration with the Society for Literature, Science, and the Arts).
- Jamie Lorimer: *The Anthro-scene: a guide for the perplexed* (*Social Studies of Science*, 47, 2017, 1)
- Leslie Sklair: *From the Anthropocene to the Anthro-scene* (*LSE Review of Books*, 2 August 2008)
- Noel Castree: *Changing the Anthro(s)cene: geographers, global environmental change and the politics of knowledge* (*Dialogues in Human Geography*, 5, 2015, 3).

Insights into its nature are evident from anthropology confronted with the Anthropocene (in terms relevant to the argument above):

As we wend our way across the global Möbius strip that is the terrain of the AnthroScene, riding the ontological wave as it twists and turns, we must be ever conscious of our simultaneous efforts to integrate with nature and destroy ourselves. We might then ask how to best deploy anthropology's unique talent for changing the focal length of our mirror for humanity, zooming from the molecular to the global to make sense of our energy resources and technologies, as they are both drivers and solutions to the wicked crises we now inhabit (*Sarah Strauss, "Something Wicked This Way Comes": energy, modernities, and the AnthroScene, EnviroSociety*, 2 March 2016)

Anthro-seen: There is however a third cognitive locus of primary significance to individuals which could be caricatured as the Anthro-seen. It can be understood as the individual's perspective on personal context, notably to be understood in terms of quality of life and the sense of well-being -- but also a desperate need to be "seen" and "re-cognized". It necessarily implies any sense of personal integrity, aspirations and potential development -- possibly to be described in terms of the dynamics of "wholth" (*Wholth as Sustaining Dynamic of Health and Wealth: cognitive dynamics sustaining the meta-pattern that connects*, 2013).

The term has also been used, as for example:

- *The Anthroseen: the invention of linear perspective as a decisive moment in the emergence of a geological Age of Mankind* (*European Review*, 26, 2018, 4 October 2018). This highlights the need to understand the nature of the Anthropocene, through the parameters that made humans think, see and ultimately act the way they do.
- Timothy Morton and Ben Rivers: *Anthro/seen: Black Ecology, Utopia and Uncertain Futures* (*Forum do Futuro*, 11 October 2017)

Reference to "seen" suggests that it may perhaps be best recognized as the cognitive locus of tourism, selfies, personal development ("self-help"), social media, community interaction, and preoccupation with appreciation by others ("looks").

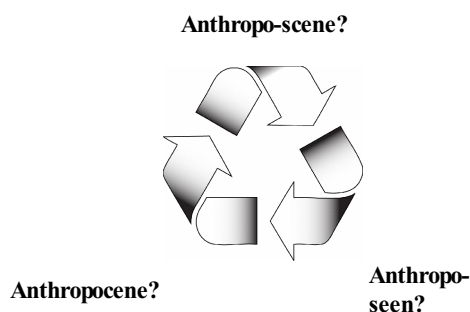
Triple complementarity? The three domains are variously entangled, as implied in the argument above, where they are usefully recognized as "roundnesses". Is there a triple complementarity to be recognized, more fundamental than the [binary complementarity](#) recognized by fundamental physics? This has implications of paradox, riddle and dynamics, as argued, necessarily with a challenge to comprehension. The Borromean ring configuration is a means of framing this cognitive complementarity in relation to knot theory and topology.

It is a matter of controversy, but more particularly of personal experience for the individual, as to how the world (the Anthropocene), or society (the Anthro-scene), is understood as cognitively "inside" or "outside", as can be variously explored (*Cognitive Osmosis in a Knowledge-based Civilization: interface challenge of inside-outside, insight-outsight, information-outformation*, 2017). Long a theme of "speculation", each lends itself to recognition as mirroring the others in some manner which eludes definitive closure (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008).

Challenges for the "psychological climate" of an individual, for example, may be projected onto those of climate change, or onto the coherence implied by globalization (or other "scenes". The process may also be reversed (*Personal Globalization*, 2001: *Weather Metaphors as Whether Metaphors*, 2015). Challenges of global warming may constitute a significant displacement for some from the "over-heating" of relations between groups and nations on the global scene. It is readily comprehensible that warming of the climate of opinion between them is a factor inhibiting effective action on climate change (*Climate Change as a Metaphor of Social Change*, 2008). Such unconscious projection could be a characteristic of global civilization in this period (John Ralston Saul, *The Unconscious Civilization*, 1995).

The interplay of Anthropocene, Anthro-scene and Anthro-seen is strangely evident in the dynamics associated with those acclaimed as world leaders at this time and their various understandings of boundaries and borders: Donald Trump, Theresa May, Vladimir Putin, Angela Merkel, Emmanuel Macron. In the case of Trump, for example, it has been eloquently argued that: *This is a very real crisis inside one man's cranium and it's playing out in the living rooms of a weary nation; that crisis is called reality* (Richard Wolffe, *Border wall speech: Trump is losing the macho game of staring himself down in the mirror*, *The Guardian*, 9 January 2019).

Any question of unity and coherence, rather than being solely recognized in societal terms, can be usefully considered in terms of individual integrity and coherence. This can be understood as constraining or determining comprehension of both the Anthropocene and the Anthro-scene. In the context of a paradoxical dynamic, meaningful insights into the nature of unity preclude premature closure. Any "answer" elicits further "questions" for continual reflection -- especially including how to engage with that dynamic.



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