



# laetus in praesens

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## Embodiment of Identity in Conscious Creativity

### Challenge of encompassing "con"

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Introduction (main paper)

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Annex B to *Primary Global Reserve Currency: the Con?*  
*Cognitive implications of a prefix for sustainable confidelity* (2011)

## Consciousness central to identity: dynamic ambiguity of "con"

The argument in the main paper (*Configuring a system of pre-logical biases*, 2011), implying the constraining conditions of emergent confidelity, obscures the subtler experiential processes of conscience and of consciousness itself -- both being essential to meaningful confidelity. These can be tentatively highlighted through the ambiguity of "con" in anticipation of further exploration, as previously suggested (*Towards Conscientific Research and Development*, 2002).

**Ambiguity:** Especially intriguing is the ambiguity of "con" in practice, as also noted in the main paper (*Embodying the binary ambiguities of currency*, 2011) and in Annex A: *Exploration of Prefixes of Global Discourse: implications of a cognitive prefix for sustainable confidelity*, 2011):

- in a purely **integrative mode** of bringing or holding things together through consensus and its organizational implementation -- thereby exemplifying some form of "togetherness" and cognitive engagement therewith (as with many collective initiatives responding conventionally to concerns)
- in a purely **oppositional mode** in relation to any proposal, evident in the naysayers of parliamentary procedure -- exemplifying the contrarian and the identity thereby achieved through mirroring (perhaps to be understood as cognitive "contraception" inhibiting the "prolific")
- in a mode constituting a fundamental **breach of confidence** through subterfuge and trickery, evident (or suspected) in many marketing and political practices -- exemplified by the confidence trickster and inferred as betrayal of public confidence in the light of WikiLeaks disclosures
- in a mode characterized by **confusion and uncertainty** -- perhaps exemplified by the "unknown unknowns", proudly made central to the legacy of **Donald Rumsfeld** (*Known and Unknown: a memoir*, 2011) and more generally associated with ignorance and stupidity

These may be understood as implying a degree of complementarity:

- a "con" (man) is functionally defined in relation to a "con" (French style) -- and vice versa -- without whom the "con" cannot exist
- any convergence or togetherness embraced by "con" (consensus, confederation, etc) is fundamentally defined in relation to its

denial (contestants, contrarians, etc) -- and vice versa -- without whom the coherence implies by "con" cannot exist

In many cultures the dynamics between these modes are embodied together within the [Trickster archetype](#) -- to be welcomed and appreciated with the most extreme vigilance. Consideration of proposals for a global reserve currency call for equivalent appreciative vigilance in encompassing "twistedness" (*Engaging with Questions of Higher Order: cognitive vigilance required for higher degrees of twistedness*, 2004).

In French, most leaders (exemplified by those assembled at G20 Summits on monetary reform) would be expected to frame those opposing them as being "con" -- if only off the record or in conversation with confidants. They attain leadership by conveying to potential supporters that they are not as "con" as their predecessors have treated them -- whilst skillfully and opportunistically exploiting those that are in the process. Their careers as leaders decline as the proportion of people framing them as "con" increases. Political and military uses are noted by *Wikipedia (Usage politique et militaire)*. More generally, a similar process occurs in the marketing of any new product or service to "consumers" -- effectively defining the product lifecycle. Young and old may deprecate each other with that term -- even affectionately. It is a very common expletive -- for good reason. A relevant popular French expression is: *On est toujours le con de quelqu'un*. English equivalents are of course similarly used.

In a world of increasing relative ignorance -- an ignorant society -- the process of leadership might then be understood in terms of four con-related processes:

- convening, configuring and contracting -- to articulate concern and build consensus, possibly in the name of conscience
- contesting opposing initiatives and challenges
- conspiring amongst confidants
- engaging with the "con" and eventually being so framed

The relation between these modes might be explored through their potential correspondences, as in the following tentative exercise.

Indicative correspondences				
Distinct dynamics	Logical quadrilemma	Risk	Confidence	Strategic knowledge
con (togetherness)	A	acceptable	informed confidence	known knowns
con (opposition)	not-A	unacceptable	lack of confidence	known unknowns
con (trickster, subterfuge)	neither A nor not-A	mis-selling / exploitation	opportunism / trickster practices	unknown unknowns
con (ignorance)	both A and not-A	buyer ignorance	confidence blinded by hope	unknown knowns

**Dynamics:** A sense of the subtle relation between the conditions is readily accessible through the experience of any sales situation or marketing promotion -- whether of products, ideas or beliefs. The dynamics are especially evident in gambling and interpersonal (romantic) relationships -- where a degree of ignorance and speculation is inherent. It is the dynamic interplay from which any "investment" decision emerges (as further explored below). The psychodynamics of such encounters have been extensively explored through [transactional analysis](#) (see also *List of Confidence Tricks*, *Wikipedia*).

The "strategic knowledge" column (in the table) is that notoriously promoted through a short [poem](#) by Donald Rumsfeld as US Secretary of Defense in relation to intervention in Iraq. As with any 4-fold articulation it invites expansion, notably with the aid of binary coding systems. This has been done in seeking to encompass the engagement of conscience seemingly so absent from Rumsfeld's framework and its application to building a consensus at any cost (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008). The concern is to elicit a sense of the dynamics between the four cognitive conditions through exploring more complex patterns within which they can be embedded. The Chinese binary coding system was used in that exercise for that purpose since it strongly emphasizes such dynamics as noted below with respect to the Fibonacci progression.

There is the interesting possibility that the cognitive dynamics of "con" embody, whether explicitly or implicitly, the cognitive transformations associated with the other prefixes. Prefixes can be fruitfully understood as "pre-fixing" the cognitive terrain of knowledge space through which one is called to move. This is consistent with the promotion of an insight from Buddhism by the [neurophenomenologist Francisco Varela](#) (*Laying Down a Path in Walking: essays on enactive cognition*, 1997). Of interest is Varela's focus on the [phenomenological epoché](#), as discussed separately (*Present Moment Research: exploration of nowness*, 2001).

## Conscious creativity sustaining confidelity: a solar metaphor

**Richer metaphors:** How is the significance of a global reserve currency to be comprehended to enable its widespread communication to those from whom consensus is expected -- and especially to ensure that it can be sustained?

The suggestion, developed elsewhere, is that increasingly there is a need for richer metaphors to offer insight into intangibles beyond the ready comprehension of most when described in technical terms (*In Quest of Mnemonic Catalysts for Comprehension of Complex Psychosocial Dynamics*, 2007; *In Quest of Uncommon Ground: beyond impoverished metaphor and the impotence of words of power*, 1997). The question is whether any metaphor used for communication purposes is of requisite complexity to act as a fruitful template.

**Disparate threads:** The argument above points to the relevance and possibility of a more complex "interweaving" of several threads, as previously discussed (*Interweaving Thematic Threads and Learning Pathways*, 2010). These include:

- consciousness as experienced and expressed through creativity
- confidelity and mutuality as integratively experienced in shared humour and play (*Enacting Transformative Integral Thinking through Playful Elegance*, 2010)
- cognitive engagement with globality fundamental to the collective credibility and viability of any global system

**Fusion process:** Given the manner in which daily life as it is known is sustained by solar energy, there is a case for exploring solar

processes as a metaphor for the most fundamental global reserve currency. Given that these processes are an instance of the process of [nuclear fusion](#) on which the future energy needs of global civilization are controversially dependent, they merit even more careful attention. In that light it could be argued (if only playfully) that it is precisely the cognitive operations with which the "con" prefix is associated which may most intimately correspond to "solar" or "fusion" processes. This specifically then includes the "ambiguity" of "con".

**Cognitive engagement:** With respect to the dynamics of the global monetary system, much has been made of the temporal context in which currency traders function, obliged as they are to make high-risk decisions, under pressure, in the moment in the light of their confidence in their speculative knowledge of emerging conditions -- a confidence shared to a degree with other traders and their clients. Whilst the dynamics of the context may induce and sustain a desirable adrenalin rush, as with gamblers, individual and collective identity is intimately entangled in the manner in which the process is engaged.

**Confidelity in the moment:** A sense of the quality of such collective engagement is offered by the collective appreciation of humour and the bonding to which it may give rise (*Humour and Play-Fullness: Essential integrative processes in governance, religion and transdisciplinarity*, 2005) -- as a feature of confidelity. More philosophically or cynically, according to circumstances, this may evoke remarks to the effect that "*life is like a joke*" or even "*life is a joke*". Any engagement in the moment, as in the case of currency traders, necessitates a form of creativity to a high degree. The emergent collective consciousness associated with the highly entangled processes of humour and creativity is discussed below in its relation to \*\*\*\*

**Solar processes:** As a metaphor, solar processes are especially significant (if not impressive) at the time of writing given the coincidence of a G20 financial ministerials meeting (discussing monetary system reform) with an exceptional [solar flare](#) (*Solar flare to jam Earth's communications*, *ABC News*, 17 February 2011). That flare highlights the systemic capacity of the Earth's magnetosphere to handle gracefully the potentially disastrous impact of such flares on the Earth's biosphere, although greater threats have been identified (Alok Jha, *Solar storms could create \$2tn 'global Katrina'*, *The Guardian*, 21 February 2011. This is suggestive of stabilizing characteristics required by a global currency system.

Do solar processes (as currently understood) offer useful models of consciousness as experienced in the moment -- as many traditions have implied? The essential solar nuclear fusion processes -- releasing the energy that sustains life on the planet -- are based on the conversion of hydrogen into helium. They are understood to be:

- the [proton-proton chain reaction](#) (aka p-p chain) within stars smaller than the Sun (and for most of the life of the Sun)
- the [CNO cycle](#) (for carbon-nitrogen-oxygen) within stars larger than the Sun (with less than 2% of the helium generated in the Sun coming from this cycle)
- two other processes (hypothesized within older stars) are:
  - the [triple-alpha process](#)
  - the [helium flash](#)

**Linear "p-p chain":** Exploring the first fusion process (the [proton-proton chain reaction](#)) as a potential metaphoric template, the integrative "con" process might be understood as "fuelled" as follows -- especially when society is upheld as "fuelled" by hope and exploring the possibility of dependence on [hydrogen fuel cells](#):

Hydrogen	Hope
hydrogen, as fuel for the process	hope, as the attitude which enables any creative, integrative process
relative inexhaustibility of hydrogen reserves in the Sun	as summarized in the poem: <i>Hope springs eternal in the human breast</i> (as in the poem below)
although seemingly "inexhaustible", there are finite limits to the exploitation of such reserves of hydrogen within any star	although assumed to "spring eternal", the progressive loss of hope for many has long been widely noted, especially as associated with failing initiatives, aging and recognition of mortality
as hydrogen is exhausted, other process come into play	as hope is exhausted for individuals and cultures, other processes (notably of decline) come into play -- associated with "giving up", despair, and disappearance

*Hope springs eternal in the human breast;  
 Man never Is, but always To be blest:  
 The soul, uneasy and confin'd from home,  
 Rests and expatiates in a life to come.*  
 (Alexander Pope, *An Essay on Man, Epistle I*, 1733)

Fuelled in this way, the question is the insights potentially offered by the solar process for the creative process implied by the dynamics of "con". The latter must necessarily focus on whether the metaphor fruitfully informs current insights into [creativity](#). Of interest in this respect is the central importance attached to this process by [Arthur Koestler](#) as articulated in *The Act of Creation* (1964).

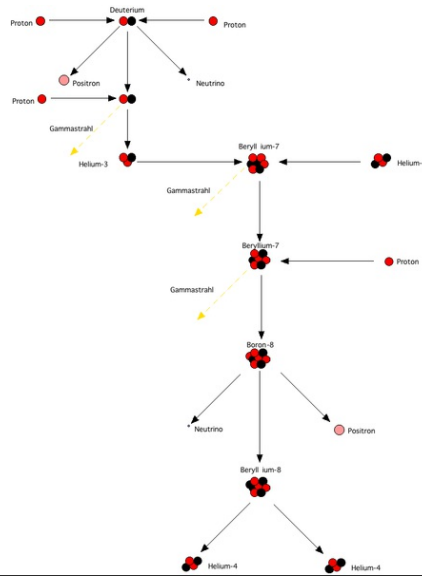
Especially relevant as a context for this focus is both his own existential encounter with death, embodied in his influential *Darkness at Noon* (1940), and his pioneering efforts at integrative thinking in a 12-year series of symposia at [Alpbach](#) (now the [European Alpbach Forum](#)). This process he later summarized, controversially, in caricature (*The Call-Girls: a tragicomedy with a prologue and epilogue*, 1972). This is a novel about scholars making a living on the international seminar-conference circuit, (1972). In the terms of this argument, the series might be described as experiments with integrative "con" in response to concern about human destructiveness.

The argument here is that the p-p fusion process offers a way of looking at [conceptual blending](#) (aka conceptual integration). This is a general theory of cognition, whereby elements and vital relations from diverse scenarios are "blended" in a subconscious process assumed to be ubiquitous to everyday thought and language. Insights obtained from these blends constitute the products of creative thinking. The theory was developed by [Gilles Fauconnier](#) and [Mark Turner](#) (*The Way We Think: conceptual blending and the mind's hidden complexities*, 2002). The development of this theory from 1993 is variously described ([Conceptual Integration and Formal Expression](#); [Blending and Conceptual Integration](#)). Koestler's work is recognized as an early forerunner of conceptual blending. He had identified a common pattern in creative achievements in the arts, sciences and humour that he had termed "bisociation of matrices".

It is recognized that conceptual blending is not itself a theory of creativity, inasmuch as it does not illuminate the issue of where the inputs to a blend actually come from. It is however upheld as providing a rich terminology for describing the creative products of others, but has little to say on the inspiration that serves as the starting point for each blend. The p-p fusion process may however offer insights into these processes of "bisociation" or "blending" in the experience of creativity.

Nuclear fusion as a metaphor of cognitive fusion		
Proton-Proton chain reaction		
Reduced images reproduced from <i>Wikipedia</i> entry (click on each for larger versions)		
<p>Step 1: fusion of two protons, nuclei of hydrogen <math>^1\text{H}</math>, into deuterium (<math>^2\text{H}</math>), releasing a positron and a neutrino as one proton changes into a neutron. The positron immediately annihilates with an electron, and their mass energy is carried off by two gamma ray photons. Step 1 is extremely slow, both because the protons have to tunnel through the Coulomb barrier and because it depends on weak interactions.</p>		<p>Step 1: an integrative ("con") process can be understood as necessitating the fusion of at least two distinct positive initiatives, perspectives or positions -- with which there is some form of psychoactive engagement and identification. The "energy" released as a form of "enlightenment" (a "creative spark") is associated with one of the "positives" transforming into some form of "neutral" perspective. The slowness of the creative process may then be understood in terms of the need for "positivity" to "tunnel" through cognitive barriers and the dependence of this process on "weak interactions". This is evident in the case of the emergence of any political "bipartisanship"</p>
<p>Step 2: the deuterium produced in the first stage can fuse with another hydrogen to produce a light isotope of helium (<math>^3\text{He}</math>). There are then three possible paths to generate helium-4 (<math>^4\text{He}</math>). There is also an extremely rare fourth path.</p>		<p>Step 2: the resultant two-fold insight (whether understood as complementarity or bipartisanship) can now associate with another positive perspective to produce a form of "integration lite". This too is accompanied by the release of energy. There are then various paths towards integration of greater consequence.</p>
<p>Step 3 (option I): Helium-4 comes from fusion of two of the helium-3 nuclei produced. (Frequency in the Sun: 86%). The complete fusion reaction through this option releases a net energy of 26.7 MeV and is dominant at temperatures of 10 to 14 MK (starting to occur at temperatures around <math>4 \times 10^6</math> K). Below this temperature range, the p-p chain does not produce much helium-4</p>		<p>Step 3 (option I): The completion of the integrative ("con") process results in the fusion of two instances of "integration lite" -- effectively constructing a stable, coherent "integrative configuration", whether in conceptual terms alone or with implications for psychosocial organization. This creative process as a whole occurs only at high levels of "heat" (as commonly used to describe contexts and conditions of creativity).</p>
<p>Step 3 (option II): fusion of <math>^3\text{He}</math> with a pre-existing <math>^4\text{He}</math> to make beryllium. (Frequency in the Sun: 14%). This path is dominant at temperatures of 14 to 23 MK with the complete fusion reaction through this option releasing a net energy of 14 MeV or less, depending on conditions.</p>		<p>Step 3 (option II): fusion of "integration lite" with a pre-existing stable "integrative configuration" to make an integrative configuration of greater complexity -- releasing energy in the process. This path is dominant in more energetic psychosocial contexts than option I.</p>

Step 3 (option III): fusion of  $^3\text{He}$  with a pre-existing  $^4\text{He}$  to make beryllium. (Frequency in the Sun: 0.11%). This path is dominant at temperatures exceeding 23 MK.



Step 3 (option III): fusion of "integrative lite" with a pre-existing stable "integrative configuration" to make an integrative configuration of greater complexity -- releasing energy in the process. This path is dominant in more energetic psychosocial contexts than option II.

**Cyclic "CNO cycle":** Ironically, and delightfully appropriate to this argument, "CNO" offers an appropriate anagram of "con" -- especially in the light of the cyclic aspects of the integrative nature of the latter (discussed below). Theoretical models show that the second fusion process, the **CNO cycle** (aka carbon-nitrogen-oxygen cycle) is the dominant source of energy in stars more massive than about 1.3 times the mass of the Sun. The CNO cycle starts occurring at approximately  $13 \times 10^6 \text{K}$  but its energy output rises much faster with increasing temperatures. At approximately  $17 \times 10^6 \text{K}$ , the cycle starts becoming the dominant source of energy. Exploring this cyclic fusion process as a potential metaphoric template, the integrative "con" process might be understood as "fuelled" as follows.

<b>CNO cycle</b> Reduced image reproduced from <i>Wikipedia</i> entry (click for larger version)		
<p>In the CNO cycle, four protons fuse, using carbon, nitrogen and oxygen isotopes as a catalyst, to produce one alpha particle, two positrons and two electron neutrinos. The positrons will almost instantly annihilate with electrons, releasing energy in the form of gamma rays. The neutrinos escape from the star carrying away some energy. The carbon, nitrogen, and oxygen isotopes are in effect one nucleus that goes through a number of transformations in an endless loop.</p>	<p>The diagram shows the CNO cycle as a circular process. It starts with <math>^{12}\text{C}</math> and <math>^1\text{H}</math> (proton) fusing to form <math>^{13}\text{C}</math> and a gamma ray. <math>^{13}\text{C}</math> and <math>^1\text{H}</math> fuse to form <math>^{14}\text{N}</math> and a gamma ray. <math>^{14}\text{N}</math> and <math>^1\text{H}</math> fuse to form <math>^{15}\text{O}</math> and a gamma ray. <math>^{15}\text{O}</math> decays into <math>^{15}\text{N}</math> and a positron. <math>^{15}\text{N}</math> and <math>^1\text{H}</math> fuse to form <math>^{12}\text{C}</math> and a gamma ray, completing the cycle. A legend identifies the particles: red circle for Proton, grey circle for Neutron, white circle for Positron, <math>\gamma</math> for Gamma Ray, and <math>\nu</math> for Neutrino.</p>	<p>In the "con" cycle, four distinct positive initiatives, perspectives or positions (with which there is some form of psychoactive engagement and identification) fuse -- using three other integrative configurations as catalysts. In so doing they release energy in various forms (insight, etc). The three catalytic configurations are in effect variant forms of a common configuration that go through a number of transformations in an endless loop.</p>

**Creativity and humour:** Experience in the moment of creativity is a reality for many, but its stages are necessarily elusive to comprehension and articulation in the moment. Koestler's proposal for a global theory of creative activity (*The Act of Creation*, 1964) encompasses humour, scientific inquiry, and art. For him any creative act is a *bisociation* (not mere *association*) of two (or more) apparently incompatible frames of thought. Employing a spatial metaphor, he refers to such frames of thought as *matrices* arguing: "any ability, habit, or skill, any pattern of ordered behaviour governed by a 'code' of fixed rules". Each such matrix is understood in the comparison above as a form of positive initiative, perspectives or position (with which there is some form of psychoactive engagement and identification).

More readily comprehensible in this understanding (and according to the *Wikipedia* summary), in the case of jokes and humour the audience is led to expect a certain outcome compatible with a particular matrix (e.g. the narrative storyline). A **punch line**, typically with an ironic twist, replaces the original matrix with an alternative to comic effect. The structure of a joke, then, is essentially that of **bait-and-switch**, namely a form of confidence trick, appropriately consistent with the argument here regarding the ambiguity of "con".

In scientific inquiry, the two matrices are fused into a new larger synthesis. The recognition that two previously disconnected matrices are compatible generates the experience of **eureka** -- effectively the dynamic integrative characteristic of the "con". In the case of the arts and in ritual, the two matrices are held in juxtaposition to one another. Observing art is a process of experiencing this juxtaposition, with both matrices sustained. This argument is consistent with that relating to correspondences (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007).

Koestler identifies three types of creative individual: the Artist, the Sage and the Jester. These three elements have been upheld as necessary in business and are considered to be identifiable in all "truly creative" companies. The argument can be fruitfully extended to the forms of creativity appreciated in gardening, the culinary arts and decoration -- significantly fuelled by expectant hope, intimately

entangled with a degree of confidence.

It is intriguing from the above perspective that the term "star" is so widely used to identify creative artists and their capacity to engender humour, insight and even warmth. Perhaps even more intriguing is how the exhaustion of this capacity is experienced, effectively ending their careers.

## Consciousness and identity through encompassing "con"

The argument to be made here is that the emergence of effective, sustainable integration (in contrast with "integration lite") necessitates a comprehension of "con" in all its aspects. This is relevant to:

- **mirroring**: consciousness and identity then understood as the ability to encompass and "know" the "con":
  - perhaps best understood in terms of the **mirror test** of self-consciousness -- as applied to animals to determine whether they either possess or lack the ability to recognize themselves in a mirror.
  - the development of this capacity is evident as a stage in the cognitive development of children.
  - the argument can be extended speculatively to a potential requirement for species maturity (*Self-reflective Embodiment of Transdisciplinary Integration (SETI): the universal criteria of species maturity?* 2008)
  - the argument can be developed further as presented by **Yair Neuman** (*Mirrors Mirrored: is that all there is? S.E.E.D. Journal (Semiotics, Evolution, Energy, and Development)*, 2004) with respect to recursive-hierarchical (multi-level) systems that constitute their systemic closure through recursion.
- **"seeing through" a confidence trick**: an extension of the previous point, and notably a requirement in response to many forms of advertising and marketing, and of special relevance in response to some forms of political rhetoric, especially "spin" (*Transformation of Global Governance through Bullfighting*, 2009; *Complementary Bullfighting Metaphors of Global Governance*, 2009). The latter note the depiction of **Hathor** as a goddess who personified the principles of feminine love, motherhood and joy -- being one of the most important and deities throughout the history of ancient Egypt. Hathor is commonly depicted as a cow goddess with head horns in which is set a sun disk -- effectively housing or enclosing **Horus** as a sun god (as shown in the [animation](#) below). Hathor is "the Mother of Light". For Freemasonry, Hathor is a symbol of an enlightened and flexible mind, giving that which is desired.
- **appreciation of humour**: as evident in the capacity to "see the joke"
- **wisdom and illusion**: as implied by the capacity to recognize and engage fruitfully with illusion, as exemplified by the **Maya** of Hinduism and Sikhism, namely the principal concept which manifests, perpetuates and governs the illusion and dream of duality in the phenomenal Universe (*The Isdom of the Wisdom Society: embodying time as the heartland of humanity*, 2003)
- **strategic capacity**: as implied by ability to take appropriate advantage of an array of strategies (see *Table of Confidence Ploys*, 1995; *Typology of 12 complementary strategies essential to sustainable development*, 1998; Wang Xuanming, *36 Stratagems: Secret Art of War*, 2003)
- **contemplation and meditation**: the stages in the taoist meditative focus are described in terms of "**circulation of the light**" (*Circulation of the Light: Essential metaphor of global sustainability?* 2010). These suggest an intriguing correspondence to the stages in the CNO cycle.
- **environmental recycling**: increasing recognition of this strategic necessity can be seen as dependent on encompassing what are readily framed and rejected as problematic processes
- **circular breathing**: a technique used by players of some wind instruments to produce a continuous tone without the interruption of conventional breathing. This is achieved by breathing in through the nose while simultaneously blowing out through the mouth using air stored in the cheeks. It is used extensively in playing many traditional instruments, such as the Australian didgeridoo.
- **capacity to live "betwixt and between"**: this could be understood as the conscious ability to encompass extremes, effectively "knowing the con", as separately argued (*Living as an Imaginal Bridge between Worlds: Global implications of "betwixt and between" and liminality*, 2011). Consciousness could be fruitfully understood as associated with this capacity
- **"rebirth"**: encompassing or knowing the "con" can be framed in terms of a change in perspective, a "conversion", or emergence of wisdom of some form (*Varieties of Rebirth: distinguishing ways of being born again*, 2004).

These variously, and together, give a sense of an encompassing configuration of cycles offering a subtle form of transcendent, integrative or "meta" focus. This can be explored in terms of conventional and alternative understandings of awareness (*Beyond the Standard Model of Universal Awareness*, 2010). One approach is through exploring human ability to conceive of simplicity (*Psychodynamics of Conscious Simplicity*, 2005).

The challenge of the times -- despite and because of the explosion of communication possibilities -- is that essentially the knowledge society is developing to a point at which nothing can be effectively communicated (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009; *Dynamically Gated Conceptual Communities*, 2004). Each is increasingly constrained by information overload and the lack of time for comprehension -- the "**blip culture**" predicted by **Alvin Toffler** (*The Third Wave*, 1980). Each "connects the dots"

to which he or she has access -- configured into "constellations" (the "con-" prefix again) from the part of the "knowledge universe" which they inhabit. Increasingly each lives within such a configuration, considered meaningful -- but increasingly meaningless (even subjective) from other parts of the "knowledge universe" (as discussed below). Hence the challenge of "encompassing the con".

## Confidelity container design

Various clues to this process of "encompassing the con" are worth considering.

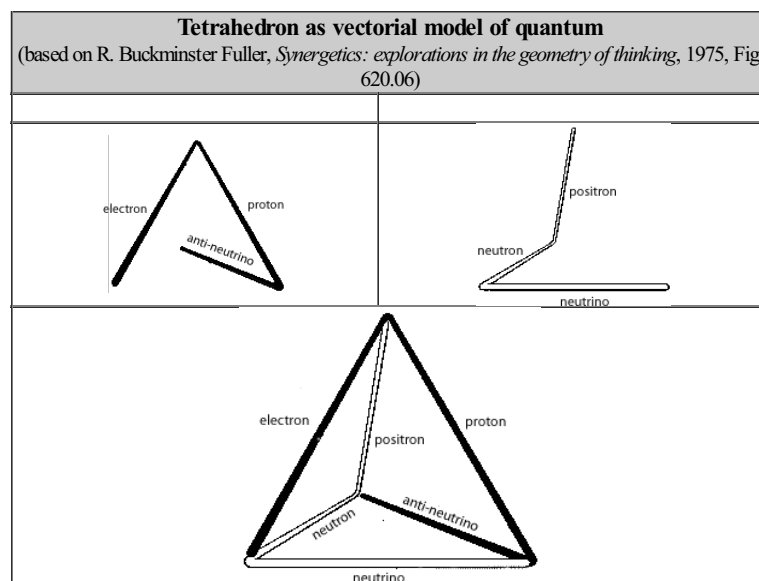
**Fusion energy:** As noted above, efforts have long been underway to emulate in "reactors" the [nuclear fusion](#) processes of the Sun -- as a future source of energy to sustain global civilization. A major international focus for this controversial initiative is the [ITER](#) project. This is recognized as confronting numerous technically challenging issues, succinctly summarized by French physicist [Sébastien Balibar](#): "*We say that we will put the sun into a box. The idea is pretty. The problem is, we don't know how to make the box*". This fruitfully alludes to the constraints of "in-the-box" thinking. An analogous phrase could be usefully formulated with respect to the global reserve currency system as fundamental to the sustainable economic energy of civilization obliged to navigate the adaptive cycle.

What "out-of-the-box" thinking is required to ensure the design of an appropriate container for conscious creativity? One approach is to use the design challenges and processes of the ITER reactor as a template, as separately explored ([Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing \(ITER-8\)](#), 2006).

After considerable research, the design constraints have given rise to a toroidal container for nuclear plasma in the case of ITER. This is tantalizingly consistent with the toroidal comprehension (and containment) of uncertainty as explored by D. McNeil and [V. Dimitrov](#) ([On the Topology of Uncertainty](#), 1998). Appropriately Dimitrov is exploring related processes of autopoiesis (Vladimir Dimitrov and Robert Ebsary, [Intrapersonal Autopoiesis](#). University of Western Sydney). The topological challenges at the core of thinking and identity have been variously explored ([Geometry, Topology and Dynamics of Identity](#), 2009; [Topology of Valuing: psychodynamics of collective engagement with polyhedral value configuration](#), 2008; [Complexification of Globalization and Toroidal Transformation](#), 2010 ). They can also be explored in terms of the dynamics of flow ([Enabling Governance through the Dynamics of Nature -- exemplified by cognitive implication of vortices and helicoidal flow](#), 2010).

**Tetrahedral principles basic to geometry of thinking:** [R. Buckminster Fuller](#) ([Synergetics: explorations in the geometry of thinking](#), 1975)) argues extensively that the tetrahedron, as a basic vectorial model, is the fundamental structural system, as presented schematically below. In his terms:

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



These images are suggestive of implications for creative thinking in the light of theories of [quantum consciousness](#). Appropriately, the upper images are reminiscent of the traditional mythical symbolism in many cultures of divine [thunderbolts](#), notably that of Zeus -- perhaps even more appropriately with the possibility of a curious reciprocity consistent with any confidelity with the divine.

Despite the subtitle of his *magnum opus*, the relationship of his articulation to the thinking that is the concern here is elusive, as separately argued ([Geometry of Thinking for Sustainable Global Governance](#), 2009; [Geometry, Topology and Dynamics of Identity](#), 2009).

Fuller has however pioneered detailed reflection on what can be readily interpreted as the configuration of sets of concepts or insights in

the most general sense. In particular he offers many indications with respect to triangulation and its importance to more complex configurations. This suggests a tantalizing relationship to the "integration lite" associated above with helium-3, and the role of the tetrahedron potentially to be associated with helium-4 as implying a higher degree of integration -- one that is potentially more stable. His exploration of the dynamics (see [animation](#)) associated with what he termed the [vector equilibrium](#) (aka cuboctahedron) is also suggestive of the cycle of fundamental transformations in the CNO cycle (*Vector Equilibrium and its Transformation Pathways*, 1980).

In his *magnum opus*, Fuller, presented as a "co-ordinate system of the Universe", with all phenomena reducing to geometric-energetic constructs based on the tetrahedron (4-sided), the octet truss (8-sided) and the coupler (8-faceted with 24 phases). Fuller notes the *Possible Relevance to Periodic Table of Elements*, arguing that the 8-face, 24-phase coupler underlies the 8-fold division of the chemical elements on the Mendeleev Periodic Table -- a metaphor explored below in relation to prefixes. \*\*\* polyhedral packing

#### 4-fold nature of integration:

- **Buckminster Fuller:** offers especially detailed arguments regarding the design constraints by which an effective system can be constructed in practice. Best known for his implementations of large [geodesic domes](#), the logic underlying such architecture is suggestive of principles of relevance to the design of a global reserve currency system -- as well as offering an admirable visual metaphor. He and his followers have indeed applied such thinking to global distribution of resources, understood in energy terms - readily to be associated with financial flows.

William Shepherd (*Energy Currencies*, 2008) notes that energy currencies were first suggested in 1981 by Buckminster Fuller in connection with his *One World Island Global Electricity Grid*. On behalf of the [Single Global Currency Association](#), a submission was made to the 2009 Buckminster Fuller Challenge by Morrison Bonpasse (*Single Global Currency*, 2009).

Potentially intriguing with this understanding are the [tensional integrity](#) principles which underlie the structure of such global systems. Fuller stresses the essential instability of such systems unless the geometry of the constitutive elements is appropriately triangulated -- inferred from the fundamental stability of the 4-fold tetrahedron and how the stability of its development into more complex structures can be ensured \*\*\*-- tensegrity -- 6 fold

- **Arthur M. Young:** as designer of the Bell helicopter (and therefore sensitised to complex control issues), highlights the fundamental importance of the [four types of action](#) in a learning cycle, including all possible permutations of the relations between knower and object (*The Geometry of Meaning*, 1976). These insights have been adapted, as separately discussed (*Typology of 12 complementary strategies essential to sustainable development*, 1998; *Characteristics of phases in 12-phase learning / action cycles*, 1998). Of interest in relation to understanding of the movement of a free agent, Young points out that a [minimum of six observations](#) are required to determine any behaviour. This insight is presumably of relevance to the current issue of appropriate indicators for the operation of any global reserve currency system.
- **Edward Haskell:** offers a generalization of insights to be derived from the pattern (discussed below) of the periodic table of chemical elements (*Full Circle: the moral force of unified science*, 1972). Of particular relevance is the interaction between controller and controllee in any system, as represented by quadrants and diagonals highlighting the emergence of a [coaction cardioid](#), as discussed separately (*Cardioid Attractor Fundamental to Sustainability: 8 transactional games forming the heart of sustainable relationship*, 2005). Haskell's insights have been notably developed by Timothy Wilken (*The Relationship Continuum*, 2002).
- **Ken Wilber:** offers a synthesis expressed in a 4-fold [AQAL system](#), widely explored through the [Integral Movement](#).
- **Carl Jung:** offers a highly influential distinction between four complementary functions of consciousness, expanded into eight [psychological types](#). He highlights the effects of tensions between the complexes associated with the dominant and inferior differentiating functions in highly and even extremely one-sided types.

**Tetrahedron**  
showing the interlocking circles within which it is embedded



<b>Combination of 4-fold functionality in terms of dominant and regressive functions of "con" (tentative)</b>
---

	Dominant function			
Regressive function	"con": twisted (bait-and-switch)	"con": togetherness (integration)	"con": opposition (contestation)	"con": ignorant (incomprehension)
"con": twisted (bait-and-switch)	x	reframe	devious	"peasant cunning"
"con": togetherness (integration)	distort	x	block	resist
"con": opposition (contestation)	undermine	engage	x	disbelief
"con": ignorant (incomprehension)	manipulation	enable	provoke	x

\*\*\*

Combination of 4-fold functionality in terms of dominant and regressive functions of "con" (tentative)				
	Dominant function			
Regressive function	conception	concern	conscience	confidence
conception	x	"in-the-box" conventional approach	strategic initiative governed by conscience	optimism framing strategic initiative
concern	"out-of-the-box" reframing of challenge	x	conscience blocking resolution	optimism encouraging strategic response
conscience	strategic initiative overriding conscience	urgency of resolution overriding conscience	x	optimism overcoming matters of conscience
confidence	risk-aversion framing strategic initiative	hesitancy undermining strategic response	conscience undermined by lack of confidence	x

**Fibonacci:** developing on the 4-fold pattern nested within it, one approach explores the implications of the [Fibonacci progression](#) for such design (*Adaptive Hypercycle of Sustainable Psychosocial Self-organization*, 2010).

**Self-reflexivity:** It is curious that the essentially subject notions of "conscience" and "consciousness" should both be prefixed by "con". The reference to "knowing the con" is then necessarily associated with both the tradition of "know thyself" and contemporary concerns with self-reflexivity, as variously articulated ([Hilary Lawson](#), *Reflexivity: the post-modern predicament*, 1985; Steven Rosen, *Topologies of the Flesh: a multidimensional exploration of the lifeworld*, 2006; George Lakoff and Mark Johnson, *Philosophy in the Flesh: the embodied mind and its challenges to western thought*, 1999). This is discussed separately in relation to the paradoxical topological engagement with globality (*Engaging with Globality through Knowing Thyself*, 2009; *Intercourse with Globality through Enacting a Klein bottle*, 2009). Of particular concern is its implementation for collective endeavour (*Engendering the Future through Self-reflexive Group Initiatives*, 2008)

## Potential metaphors of a cognitive system of "pre-fixes"

The argument above suggests that there are very particular cognitive operations associated with many prefixes. In geometry and topology these might be expressed in terms of the specific range of operations by which an object may be transformed and mirrored. This understanding can be taken up in explorations of the "geometry of thinking" as explored by various authors and summarized separately (*Geometry of Thinking for Sustainable Global Governance*, 2009; *Geometry, Topology and Dynamics of Identity*, 2009).

In this further exploration of metaphor it should be stressed that the assumption is that innovative modelling of reality is primarily a mark of human cognitive capacity -- whose limitations (and naivety) will only become apparent through further innovation in the future. It is therefore assumed that the articulation of such models -- notably of intangible processes -- is at least suggestive of ways of thinking about processes relating to conscience, consciousness and confidence and how they might engage sustainably with globality under conditions of relative ignorance and uncertainty.

**Prefixes as "planets":** If only as a mnemonic device, there is a case for understanding (and representing) these operations as "derivative" of the "solar processes" of consciousness, in some sense functioning as "planets" -- orbiting the solar consciousness. The nature of such orbits might be compared to the frequency of use of such prefixes in discourse. Distinguishing between "primary" and "secondary" prefixes (notably in the light of the periodic table), the latter would then correspond to planetoids, asteroids and moons.

Some sense of the coherence of this metaphor is offered by the insights of [Marsilio Ficino](#) as presented by [Thomas Moore](#) (*The Planets Within: the astrological psychology of Marsilio Ficino*, 1990) and separately reviewed (*Composing the Present Moment: celebrating the insights of Marsilio Ficino interpreted by Thomas Moore*, 2001).

The cognitive interplay between "inner" and "outer" space has been highlighted by [Joseph Campbell](#) (*The Inner Reaches of Outer Space: metaphor as myth and as religion*, 1986/2002). The metaphor can be further explored in terms of the recognition of the "universe" of knowledge and the challenges to its exploration (*Towards an Astrophysics of the Knowledge Universe? from astronautics to noonautics*, 2006). With respect to such metaphors, it is appropriate to note the extent to which "stars" are a focus of the media world. Travel around the universe as anticipated by science fiction acquires a degree of reality with efforts to seek exposure to the "stars" promoted within communication space -- whether "stars" of movies, intellectual "stars" on the lecture circuit, or charismatic spiritual "stars".

For mnemonic purposes the relationships between prefixes could be explored using their relative frequency around the "sun" and the multiplicity of their dependent "moons".

**Periodic table:** An initial response to this question is the ordered (emergent) complexity offered by the [periodic table of chemical elements](#). This pattern has been used in earlier explorations (*Towards a Periodic Table of Ways of Knowing*, 2009; *Periodic Pattern of Human Knowing*, 2009; *Periodic Pattern of Human Life*, 2009; *Tuning a Periodic Table of Religions, Epistemologies and Spirituality: including the sciences and other belief systems*, 2007).

Using the version of the table presented by *Wikipedia*, this would then take the following form (omitting periods beyond 5). The links are to descriptions of the elements in *Wikipedia*.

Periodic table periods																		
Group #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 H																2 He	
2	3 Li	4 Be										5 B	6 C	7 N	8 O	9 F	10 Ne	
3	11 Na	12 Mg										13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe

Using the above table as a purely indicative template of possibilities, the array of prefixes might then be presented for purposes of discussion (extending the array beyond period 5 to hold the categories identified in [Annex A](#)).

Such an array of course raises the question as to the appropriateness of the distribution of prefixes in the light of the essentially crude and selective analysis in the [Annex A](#) -- failing fully to distinguish between a "prefix" and a non-prefix word (using the letter sequence of a prefix). Several possibilities of interest relevant to distribution within the array include:

- with respect to "groups"
  - frequency of occurrence of a prefix in words
  - frequency of occurrence in documents (notably of international debate)
  - frequency of occurrence in the selection made in Annex A
- with respect to "periods"
  - frequency of occurrence of a prefix in words
  - frequency of occurrence in documents (notably of international debate)
  - frequency of occurrence in the selection made in Annex A
- with respect to "cells"
  - frequency of occurrence of a prefix in words
  - frequency of occurrence in documents (notably of international debate)
  - frequency of occurrence in the selection made in Annex A

Of interest is the manner in which the progressive complexification of the array can be used:

- to "hold" prefixes which are less common and only become apparent in "emergent" clusters
- to highlight more fundamental prefixes, namely those more fundamental to international discourse because of the frequency of their use
- to highlight those prefixes which are less frequently used but are indicative of "higher" orders of cognitive organization (meta-, trans-, etc)

The array might then offer means of distinguishing between:

- "words of power" because of their emotional connotations ("love", etc)
- "words of power" because of their structuring potential (meta- etc)

The many examples of concept sets offer material for further exploration (*Examples of Integrated, Multi-set Concept Scheme*, 1984). Also of interest is the cognitive role of number in the identification of such sets (*Representation, Comprehension and Communication of Sets: the role of number*, 1978).

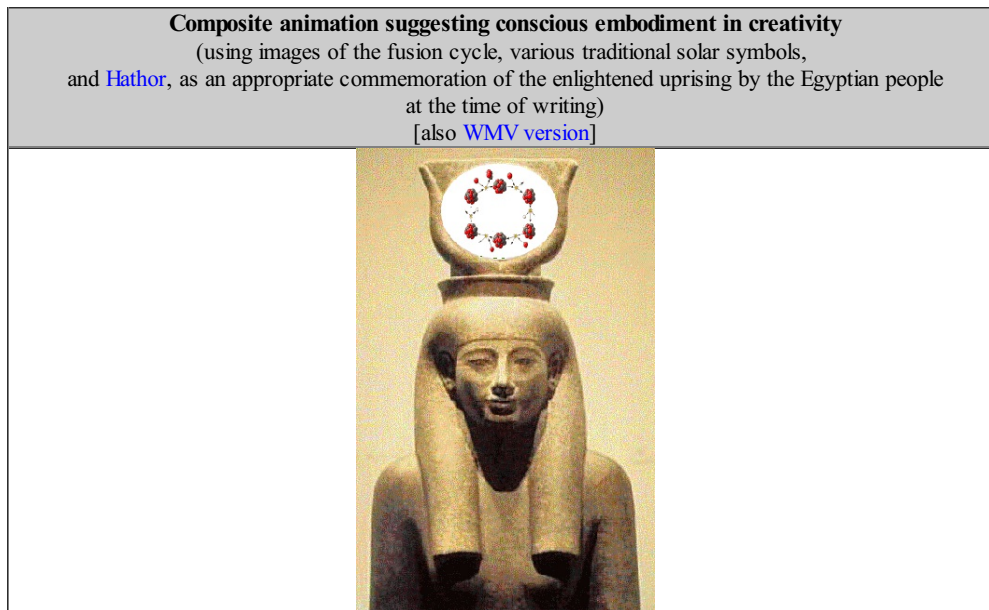
**Sound metaphor:** In distinguishing tones in harmonious relationship to one another, whatever the tuning system, the possibility is suggested of a "harmonious" pattern of relationships between prefixes -- or rather between the cognitive operations they encode. This might be reinforced in tonal languages. This would emphasize a musicality potentially valuable to the coherence and integrity of global discourse and its communicability (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006).

**Periodic table of geometric transformations:** It is mathematics which has specialized in recognition of the variety of transformations, notably through geometry, and symmetry group theory. A number of these transformations are embodied in design software, most obviously in [Adobe Illustrator](#) -- potentially to be related to the set of cognitive operations of prefixes. It is unfortunate that the correspondence with cognitive operations is not developed (*Design of Future Cognition -- illustrated metaphorically by Adobe key functions*, 2009). There is the potential of exploring mathematics -- as the study of relationships *par excellence* -- as encoding the pattern

of cognitive transformations accessible to human cognition (*Towards a Periodic Table of Ways of Knowing -- in the light of metaphors of mathematics*, 2009). This is especially the case in the light of the challenge to comprehension (*Dynamics of Symmetry Group Theorizing: comprehension of psycho-social implication*, 2008).

**Interjections:** The extent to which "con" is used as a form of interjection has been emphasized above. There is the interesting possibility of a degree of correspondence between common interjections and the pattern of prefixes, notably in the case of summary responses to communications on the internet (*Interrelating Emotive Interjections in Response to Integrative Failure: binary coding of pattern-breaking interjections and expletives*, 2010). There is even the curious possibility that the trend towards communication abridgement may see a convergence between the cognitive operations defined by prefixes and the coded communications characteristic of Twitter (*Re-Emergence of the Language of the Birds through Twitter?* 2010).

**Traffic directions:** The need to reduce traffic communications to their most succinct form to guide drivers of vehicles -- pre-fixing their responses -- raises the interesting possibility that navigation of global knowledge society will require equally succinct indications for interauts. What might be the cognitive correspondence between traffic signs and prefixes (*Being in the Flow on Strategic Highways and Byways*, 2011)?



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