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13 September 2012 | Draft

Transforming the Art of Conversation

Conversing as the transformative science of development

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Introduction

In a period of multiple global crises -- with more foreseen -- it is worth asking what skills might be usefully cultivated. It is increasingly evident that every form of claim and blame can be formulated. Many offer remedies -- readily seen as lacking credibility by others. Faith in governance and authority has been abused and it is indeed questionable whether society is "governable" in any desirable sense of the term (*Abuse of Faith in Governance*, 2009; *Ungovernability of Sustainable Global Democracy?* 2011).

Despite urgent appeals for "confidence-building", consensus of appropriate quality and scope is increasingly elusive (*The Consensus Delusion: mysterious attractor undermining global civilization as currently imagined*, 2011). The question, especially for individuals, might be framed as to what is meaningfully possible other than "nothing" (*Way Round Cognitive Ground Zero and Pointlessness?* 2012).

Strangely, however disastrous the circumstances, "conversation" continues to be possible in many forms -- even in the absence of "confidence". It could then be asked whether there are unexplored modalities and insights associated with conversation -- perhaps in the light of speculation on how it might be understood in the distant future. In a period of innovation of every kind, what innovation might be imagined in conversation? Is it possible that this might enable more fruitful ways of engaging with the world -- if only for the individual? How fruitfully radical could such innovation be?

It is curious that the global crises occur in a period when many remark on the emergence of a global knowledge-based society. This would appear to imply forms of "global conversation" of which there are arguably many indicators (social networking, international conferences, etc). In the light of the crises, it is appropriate to ask whether these endeavours can be considered "adequate" to collective engagement with the challenges -- however, courageous they may be and whatever the enthusiasm they elicit.

A "knowledge-based" society can be readily understood as being based upon the dynamics of "knowledgeable conversation" -- effectively emerging from those dynamics. In a period of crisis, when structures and processes fail, and resources are lacking, fruitful conversation might then be upheld as a vital key to survival -- and to thrival. It may even be more valuable than "martial arts", however strategic their use.

It is readily assumed that there is little to be learned with respect to conversational intercourse. Everyone can engage in it -- as with sexual intercourse, to which it can be considered as metaphorically related. No licence or authorization is required. The following argument explores the possibility that there may be other modes of conversation in which individuals and groups can fruitfully engage in this period. In particular it raises the question as to whether there may be as yet poorly explored ways of enabling transformative conversation.

For those who readily believe they have "no future", perhaps living permanently in slums or refugee camps, or with no prospect of employment, transformative conversation remains a real possibility. The more fortunate may be inspired by the encouragement to "enjoy it while you can", as proposed by James Lovelock (*The Vanishing Face of Gaia: a final warning: Enjoy It While You Can*, 2009). However, even "when you cannot", there will still be the opportunity for conversation -- potentially transformative.

The approach here follows from earlier explorations (*Enabling a 12-fold Pattern of Systemic Dialogue for Governance*, 2012; *Towards Transformative Conferencing and Dialogue: Collection of papers and notes, problems and possibilities on the new frontier of high-risk gatherings concerning social development*, 1991; *Conference Transformations: maturing the reflective, focusing and transformative power of large-group conferences, especially in response to conditions of social upheaval*, 1982).

Variety of conventional conversation challenges

It is useful to review contexts and dynamics in which conversation may be variously considered to be adequately "transformative", whatever that is held to mean:

- **academic discourse:** despite the almost total lack of innovation over decades, the academic world is content with a mix of "lectures" and panel sessions, possibly followed by a "question and answer" period. This may be packaged in celebration of the eminence of keynote speakers. The pattern is replicated through academic journals and books, and more recently through online discussion and electronic exchange of papers. There is little question as to whether the quality of discussion could be improved through other patterns. It is doubtful whether the philosophical schools of ancient Greece would be surprised by the degree of innovation.
- **political discourse:** as is evident at the time of writing, in the final phases of the election of the president of the world's superpower, the quality of discourse merits every challenge given the proportion of [negative campaigning](#) and mutual deprecation, and that one or other will "win" in a tight contest. There is little thought as to how the quality might be fruitfully enhanced. Again the pattern would not surprise the senators of the Roman Empire. Parliamentary discourse is itself considered adequate in the eyes of those involved, if seemingly inadequate to the present challenges of governance. It is above all marked by bluster, denial, mutual accusation and blame games.
- **religious discourse:** again this takes an unchanging form of sermons asserting a particular perspective -- from an unquestionable moral high ground, typically authorized by scriptures -- with little capacity to engage with those holding other views, whatever is claimed for interfaith dialogue. Such discourse seldom mitigates violence and may well trigger, justify and exacerbate it. It is characterized by unilateral appeals, exhortations and injunctions. It may well focus on conversion and mutual celebration.
- **change agent discourse:** as a counterpart to the above, this discourse is primarily characterized by protest and advocacy -- from a position of being necessarily right and appropriate. Again there is little scope for engaging fruitfully with contrary views or for seeking ways of transcending evidently dysfunctional conversational modes
- **marketing discourse:** as particularly characterized in seeking commercial advantage, but also evident in "selling" theories, policies, and religious beliefs, such as to achieve "buy in" -- irrespective of whether a degree of puffery and deception is considered appropriate to that process
- **asymmetric discourse:** as evident in conversation with those at a relative advantage or disadvantage due to age (young, elderly), circumstances (homelessness, refugee, etc), condition (handicapped, terminally ill, dying, etc), comprehension (intelligence, ignorance, etc), or incarceration (hospice, prison, asylum, etc).

Traces of each of the above are evident in the others, if only in metaphorical form. It is also of interest to review patterns, which may be manifest in the above, tending to undermine the possibility of fruitful conversational outcomes:

- so-called "empty" discourse, characterized by inherently unmemorable exchanges
- repetitive discourse, employing familiar arguments with no ability to recognize and transcend that pattern
- discourse in which the emphasis and satisfaction of the participants is primarily in their involvement and not in the content
- insensitive discourse, whether valued by an audience for its unchallenged condemnation of some poorly represented perspective, or designed to ignore views to the contrary in order to be as persuasive as possible
- so-called grooming, namely abusive forms of chat room discourse
- exclamatory discourse, namely restricted to use of appreciative or deprecatory expletives
- point scoring with the objective of "winning", irrespective of views held by other parties
- one-sided elitist discourse, based on the assumption that one party is well-informed, influential or experienced -- in comparison with the consequentially negligible views of the other
- closed conversations, necessarily precluding other perspectives and styles of conversation (cf. *Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society*, 2004)
- token conversations, pretending to openness, but effectively ensuring that unwanted perspectives and feedback are ignored (*Framing the Global Future by Ignoring Alternatives*, 2009; *Considering All the Strategic Options -- whilst ignoring alternatives and disclaiming cognitive protectionism*, 2009)
- conversations with hidden agendas
- conversations primarily focused on mutual celebration

What to do about [conversation killers](#) and people who deploy them, whether boring, inebriated, deceptive, abusive, evasive, delusional, incomprehensible, or deaf?

Is there a case for reviewing conversations upheld as important -- such as those of parliaments or global summits -- with analytical tools and expertise? These could usefully highlight problematic and fruitful dynamics -- as well as those held to be necessarily "off the analytical record" (*Global Strategic Implications of the "Unsaid": from myth-making towards a "wisdom society"*, 2003). How might appreciation of conventional (global) conversation be transformed if it was more clearly recognized that:

- few papers and books, of those, held to be significant, are read by more than a few. Little may be recalled, especially as time passes
- few speeches acclaimed as significant are in fact memorable to more than a few in any detail, especially as time passes
- few contributions to electronic discussion groups attract more than relatively limited attention, and are rapidly forgotten as time passes
- those expressing themselves in writing or orally too readily assume that they are heard according to their intention
- a significant proportion of any audience may well feel that their own concerns have been inadequately addressed
- the possibilities for commentary by any audience are typically constrained, tokenistic and readily ignored, if not misrepresented.

Increasing demands on ever more limited attention time result in higher attention to briefer messages. This encourages production of ever briefer messages (advertising, slogans, tweets, texting). This potentially raises issues in ensuring viable communication of more complex patterns of information -- notably with respect to sustained attention chains of argument in conversation (cf. *Re-Emergence of the Language of the Birds through Twitter?* 2010).

In the light of the above, where are instances of transformative conversation to be found? How can they be experienced? Why are so few examples recorded and cited as worthy of emulation? Why do they not feature on TV, video and the web? Are panel sessions and chat shows the peaks of human conversation possibility? If the skills of a group of musicians can be appreciated around the world, why not those of a group of conversationalists?

Why converse transformatively?

Why indeed should conversation be "transformative" -- beyond the modalities with which many are necessarily content? Whether as "conversation" or "dialogue", the core concern here is that the current mode would clearly seem to be inadequate to the collective communication challenges which so readily reinforce violence of different kinds.

As is only too evident in relation to current crises, the quality of conversation is proving inadequate to the articulation and implementation of viable remedies -- except, cynically, to the extent that those crises are effectively the only "remedies" possible under present circumstances.

References to the underlying challenge include the study by [John Woods](#) (*Paradox and Paraconsistency: conflict resolution in the abstract sciences*, 2002) which acknowledges the widely-held assumption that in a world plagued by conflict one might expect that the exact sciences of logic and mathematics would provide a safe harbour. Woods notes that in fact these disciplines are rife with internal divisions between different, often incompatible systems. He explores apparently intractable disagreements in logic and the foundations of mathematics -- proposing conflict resolution strategies that evade these stalemates.

This unresolved "conflict" has been succinctly summarized by [Nicholas Rescher](#) (*The Strife of Systems: an essay on the grounds and implications of philosophical diversity*, 1985) who concludes:

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

The "strife" may be exacerbated by political, religious and other pressures (cf. [Naomi Oreskes](#) and [Erik M. Conway](#), *Merchants of Doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, 2010). In its failure to encompass such dynamics, it might be asked whether "university" is a metaphor of conversational failure (as discussed below ***).

The question of "why" might be reframed in terms of the more physical form of intercourse (cf. *"Human Intercourse": "Intercourse with Nature" and "Intercourse with the Other"*, 2007). In the case of sexual intercourse, few would challenge the desire for more transformative modalities -- in quest of which many myths are engendered -- although recognized as necessarily "adequate", if only for reproduction. Does conversation have its equivalent of the "missionary position" -- despite suggestions of other more fruitful modalities (cf. *Reframing the Dynamics of Engaging with Otherness: triadic correspondences between Topology, Kama Sutra and I Ching*, 2011) ?

Possible responses to "why transformatively", as inspired by the sexual dynamic, might include:

- achieving a sense of dominance through the conversation process -- reminiscent of the preoccupation of sexual politics
- affirming a bond, possibly of a long-term nature
- affecting the other through conversation -- possibly understood manipulatively -- such as to elicit responsiveness in a manner reminiscent of seduction
- "scoring" points (or a "goal") in conversation, inspired by sporting frameworks
- "winning" the conversation, inspired by martial or sporting frameworks
- persuasion, as a prelude to conversion, inspired by religious frameworks
- conversation for conversation's sake, as recognized in phatic communication where that may effectively substitute for "making a

point" to develop an argument

- mutual celebration through competitive interaction, reminiscent of recognition of the "spirit of the game" in sport
- co-creation, reminiscent of conception in sexual intercourse

These possibilities, not necessarily mutually exclusive, highlight extremes:

- preoccupation with an outcome into which the transformation is effectively embodied, even dissociated (in time) from the participants in the conversation as a kind of "aftermath"
- preoccupation of one with achieving the conformance of the other in some way
- ensuring and sustaining a bond

It is less than evident how these forms of transformation ensure a quality of conversation adequate to survival and thrival -- especially in times of crisis.

Especially intriguing with respect to conversation is the subtlety of *duende* as the transformative moment in the Spanish performing arts (notably flamenco) through which "soul" is engendered as a heightened state of collective emotion, expression and authenticity. As described by [Federico García Lorca](#) in terms of the eerie and inexplicable sadness that lives in the heart of certain works of performing art: *All that has dark sound has duende, that mysterious power that everyone feels but no philosopher can explain.* (cf. [Daimon, Djinn, Muse and Duende: variations on a timeless experience](#), 2007).

Imagining an art of transformative conversation

There is no lack of reflection on the possibility and practice of "dialogue". This ranges from promotion of the possibility of [Dialogue Among Civilizations](#) -- notably through the [United Nations Year of Dialogue Among Civilizations](#) -- tragically and symptomatically coincident with the traumatic global disruption of the [9/11 attacks](#) and their aftermath.

Reflections include that of [Anthony Blake](#) (*The Supreme Art of Dialogue: structures of meaning*, 2009), those for the *Utne Reader* community (Jaida n'ha Sandra and Jon Spayde, *Salons: The Joy of Conversation*, 2001), that of [Stafford Beer](#) (*Beyond Dispute: the invention of Team Syntegrity*, 1994), the modality articulated for the [Institute for 21st Century Agoras](#) (Thomas R. Flanagan and Kenneth C. Bausch, *A Democratic Approach to Sustainable Futures: a workbook for addressing the global problematique*, 2011), as well as such classics as the work of [David Bohm](#) ("[Bohm dialogue](#)"), and that of [Martin Buber](#)'s *I and Thou*. Many have been an inspiration for experiments in inter-faith, inter-cultural, and even inter-disciplinary dialogue.

Is more possible? Does the focus on "dialogue" preclude a greater range of insights potentially associated with conversation? How might the future understand conversation to be transformative -- beyond the capacity of the imagination of today and the current preoccupation with dialogue?

Could imagination now be provoked by questions such as:

- what could conversation of another quality signify -- "higher", "deeper", "subtler"?
- could the challenge be reframed imaginatively as the nostalgic quest for a "lost art" -- of a Golden Age long past, deeply embedded in cultural memory?
- given recognition of the value of transcending boundaries, is there a case for:
 - "outward bound" forms of conversation, analogous to [outward bound](#) educational experiences -- exploring the "outback", spaces "where none has gone before" ?
 - "inward bound" forms of conversation, moving beyond the limitations of past experiments to this end? (cf. [Joseph Campbell](#), *The Inner Reaches of Outer Space: Metaphor As Myth and As Religion*, 1986).
- if the [troubadours](#) and [trobairitz](#). of the past proved to be catalysts for cultural creativity, what skills would enable conversation to move beyond what has been recently explored by specialists in dialogue facilitation?
- how to understand a "[magically transformative moment](#)" in a conference or conversation? Does the spirit of alchemy, appreciated metaphorically, suggest the conversion of leaden matters into a golden dynamic?
- is there a need for richer metaphors for conversation -- to bypass the constraints of metaphors which the future will see as impoverished? (cf. [Richer Metaphors for Our Future Survival](#), 1996)

There is the further possibility that more "superficial" and deprecated forms of conversation -- of "lesser" quality -- could come to be recognized as having an unenvisioned role in new forms of conversation. This is notably suggested at the time of writing by the announcement of the initial results of the project resulting in the [Encyclopedia of DNA Elements \(ENCODE\)](#) designed to find all functional elements in the human genome. Until recently, the majority view has been that much of the DNA is "junk" -- DNA that is never transcribed and has no biological function. The results show that approximately 20% of noncoding DNA in the human genome is functional while an additional 60% is transcribed with no known function. Much of this functional non-coding DNA is involved in the regulation of the expression of coding genes. A corresponding pattern could be inferred for conversation otherwise categorized as "junk" -- especially in the light of the correspondences highlighted between genetics and [memetics](#).

Might future conversations include:

- conversations across time, following computer simulation of reconstituted historical personalities?
- conversations triggered imaginatively by rebirthing and reincarnation experiences and assumptions?
- "deep time" conversations with ancestors, species, mountains, trees and rivers?
- conversations evoked by historical disasters and present responsibilities?

What form of collective conversation does the sweep of macrohistory evoke (cf. [Engaging Macrohistory through the Present Moment](#),

Prefixing "verse" as indication of conversation potential

Does the term "converse" itself offer clues to the nature of imaginative transformation? "Conversation" is etymologically associated with having dealings with others, and keeping company with them. "Converse" emphasizes the sense, especially in mathematics, of "turning around" -- and, by extension, of "conversion" as in matters of belief. The sense of turning is found in the origins of "verse" -- involving a "turning" from one line to another, whether as an aid to memory, or further enhanced by the aesthetic possibilities.

A provocative degree of ambiguity is however associated with the confusion between "con" as implying "with", and "con" as implying "against". Both may be compatible with more complex forms of turning in which one is rejected or contrasted with the other, as is most creatively evident in dance. The sense of "with" is then a playful challenge "against" the other -- possibly a development or amplification in the conversation. Significantly, dance provides for continuing transformation (in which roles may be reversed) -- rather than conversion to an unchanging final state.

How is transformation to be enhanced by "turning together" or "converting" one another -- especially when "conversation" has been used for centuries as a metaphor for sexual intercourse? What implications are to be derived for conversation through some process corresponding to "making poetry" -- thereby engendering a degree of memorable coherence, as cultivated in "making music" together? Insights could be derived from the tradition of poetry games of medieval Japan, known as *waka* (more recently as *tanka*) is the poetic ancestor to *haiku*. As noted by Lisa Joseph of the [Society for Creative Anachronism](#) in relating that tradition to the modern [poetry slam](#):

By the height of the *Heian* period, the composition of *waka* had evolved into a vital social skill. It was considered a mark of sophistication for a courtier to be able to produce these little poems on almost any occasion, all the better if one could make a clever allusion to one of the Chinese classics and display one's breadth of knowledge. At a social gathering one might start a formal or informal competition by suggesting a subject, or even offering a challenge of three lines for someone else to complete. (cf. *Heian Poetry Jam: The Poetic and Social History of Waka*)

Of further relevance is its relation to *renga* as the Japanese genre of [collaborative poetry](#) and its modern development, most notably via the internet, in the West and in Arabic (cf. Earl Miner, *Japanese Linked Poetry*, 1979).

There is a degree of problematic challenge in using the prefix "con" in relation to "versation" -- echoed to a degree in the case of other prefixes applied to it: [aversation](#), [malversation](#), [tergiversation](#). Given the common contrast between "pro" and "con", curiously there is no use of either "pro-verse" or "pro-versation" -- which might otherwise have indicated forms of transformation to be explored.

Such preoccupations derive from previous concern with the unexplored role of prefixes (*New Paradigms via a Renewed Set of Prefixes? Dependence of international policy-making on an array of operational terms*, 2003; *Exploration of Prefixes of Global Discourse: implications for sustainable confidentiality*, 2011). Given the aesthetic implications of "verse", the prefixes conventionally applied to it are (at first sight) not especially fruitful in their implications:

[adverse](#), [anniverse](#), [averse](#), [controverse](#), [converse](#), [diverse](#), [everse](#), [intertransverse](#), [inverse](#), [obverse](#), [perverse](#), [renverse](#), [reverse](#), [subverse](#), [transverse](#), [traverse](#), [underverse](#)

A potentially challenging exception to this conclusion is [universe](#), most notably in that (mathematically) it implies the impossibility of a "converse". This implication is suggestive of the constrained nature of conversation within any closed group, as previously considered (*Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society*, 2004).

Should this be understood as the consequence of "universion" -- through the development of essentially private languages and jargons, as is only too widely evident? Clearly any "other" universe is then readily framed as "perverse" -- as dangerously "subversive", even a "subverse" (cf. *Us and Them: relating to challenging others patterns in the shadow dance between "good" and "evil"*, 2009).

Transformative conversation in a multiverse

The more recent arguments of astrophysics for a "multiverse" -- significantly absent from the above list -- then call for consideration in the light of current recognition of the unconventional nature of a "universe" understood to be necessarily of far greater complexity. As explored by cosmologists (and discussed below), such a "multiverse" would be characterized by a fundamental dynamic which merits exploration in the quest for transformation of "conversation". Appropriately the "multiverse" frame is already in imaginative use in conversations instigated by bloggers (*The expanding multiverse of the scientific community: new media for communication*, September 2012; *Inside the Process Multiverse*, 31 October 2011; *Multiverse Social Learning*, June 2009).

Despite such imaginative engagement with future possibility -- inspired by rapid web development and the enthusiastically anticipated implications of the emerging [semantic web](#) -- a fundamental question is how this is to be understood as "transformative conversation", especially in the light of the communication constraints mentioned above. The sobering question is the nature of the "transformation" associated with development of telecommunication technology, computer-enabled networking, and the many more recent communication-enabling applications, so enthusiastically adopted. Might these be inherently unimaginative in terms of what would appear to be required? (cf. Thomas Homer-Dixon, *The Ingenuity Gap: how can we solve the problems of the future?*, 2000).

A point is being reached at which everyone can communicate with anyone -- if only either both parties had the time and the inclination. There is no doubt, as many have remarked, that a degree of transformation has been enabled by such conversation -- most

notably the subject of commentary with respect to the [Occupy movement](#) and the [Arab Spring uprisings](#) (cf. [Noam Chomsky, *Making the Future: occupations, interventions, empire and resistance*, 2012](#)). This "transformation" has however been variously challenged and appreciated:

- [Evgeny Morozov: *The Net Delusion: the dark side of internet freedom* \(2012\)](#);
- [William Powers: *Hamlet's BlackBerry: building a good life in the Digital Age* \(2011\)](#)
- [Nicholas Carr: *The Shallows: what the Internet is doing to our brains* \(2011\)](#)
- [Eli Pariser: *The Filter Bubble: what the Internet is hiding from you* \(2011\)](#)
- [Rebecca MacKinnon: *Consent of the Networked: the worldwide struggle for Internet freedom* \(2012\)](#)
- [David Weinberger: *Too Big to Know: rethinking knowledge now that the facts aren't the facts, experts are everywhere, and the smartest person in the room is the room* \(2012\)](#)
- [Clay A. Johnson: *The Information Diet: a case for conscious consumption* \(2012\)](#)
- [Sherry Turkle: *Alone Together: why we expect more from technology and less from each other* \(2011\)](#)
- [Nancy Baym: *Personal Connections in the Digital* \(2010\)](#)
- [Clay Shirky: *Here Comes Everybody: the power of organizing without organizations* \(2009\)](#)

The question is whether the emerging conversational possibilities, as currently envisaged, are "transformative" in a manner commensurate with the challenge of the times. In cybernetic terms, is the transformation of "requisite complexity" to enable the emergence of the new style of organization required, as separately discussed ([Consciously Self-reflexive Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations](#), 2007).

Given the acknowledged degree of information overload -- and constraints on attention resources -- will current development engender a form of "memetic singularity", as separately argued ([Emerging Memetic Singularity in the Global Knowledge Society](#), 2009)? The condition may be understood in terms of erosion of collective memory -- for which senility may offer metaphors (cf. [Societal Learning and the Erosion of Collective Memory](#), 1980). In a web context it is indicated by the increasing implications of "link rot" -- extending to social networking ("friends", "followers"). The challenge has been expressed otherwise by [Manuel Lima](#) ([Visual Complexity: Mapping Patterns of Information](#), 2011)

As I reviewed projects to feature in the book, I was astounded by how many dead links and error messages I encountered. Some of these projects became completely untraceable, possibly gone forever. This disappearance is certainly not unique to network visualization -- it is a widespread quandary of modern technology. Commonly referred to as the [Digital Dark Age](#), the possibility of many present-day digital artifacts vanishing within a few decades is a considerably worrying prospect.

The point might be made otherwise by considering the extent to which the arguments developed in the above studies are rendered more accessible by being systematically processed **together** into [concept maps](#), [conceptual graphs](#), [mind maps](#), or [argument maps](#) of any kind -- in an effort towards global [sensemaking](#). This would offer a more integrative framework exemplifying the challenge of contested discourse (cf. [List of concept mapping software](#); [Complementary Knowledge Analysis / Mapping Process](#), 2006; Clara Mancini and Simon Buckingham Shum, [Modelling Discourse in Contested Domains: a semiotic and cognitive framework](#), 2006; [Jeff Conklin, Dialogue Mapping: creating shared understanding of wicked problems](#), 2006). Few would currently have access to such mappings -- if they exist. Few would apparently desire access to such mappings, or have any use for them -- or else their existence would have already been ensured. There is no semantic dimension to Google -- comparable to the zooming facilities of Google Earth.

Would such mappings enable transformative conversation -- or is the transformation currently desired from "conversation" to be understood otherwise, as currently preferred use of the web would suggest? Indifference in this respect suggests that the very process of "argument", which it is so readily assumed is fundamental to "conversation", has been reframed by other considerations and pressures, undermining its transformative potential ([John Woods, *The Death of Argument: fallacies in agent-based reasoning*, 2004](#)). Is there any sense that credible arguments are emerging to enable more transformative conversations?

Versification as a key to conversational transformation?

What might the above connotations of "verse" -- especially the sense of turning together -- then suggest with respect to:

- conversation with others?
- global conversation, in both physical and cognitive senses?
- conversation with the environment?
- conversation with oneself?

Given the potential implications of "verse" in "conversation", does the art of "versification" then offer clues to the art of transformative conversation, as previously discussed ([Poetry-making and Policy-making](#), 1993; [Poetic Engagement with Afghanistan, Caucasus and Iran: an unexplored strategic opportunity?](#) 2009) ? The styles of poetry are inspired to varying degrees by [rules of versification](#) (rhyme, meter, etc). These are somewhat analogous to the [rules of harmony](#) elaborated to a far higher degree in music -- with its own variety of styles. These might well reframe articulation of strategic issues of the future (cf. [A Singable Earth Charter, EU Constitution or Global Ethic?](#) 2006).

The musical association is of value given that how music is played "together" -- through the voices of different instruments, possibly allowing for improvisation -- offers indications for possibilities of "con-versation" typically absent from poetry alone. For example, from the perspective of avant-garde composer [Vinko Globokar](#), consider the implications, as a metaphor for group operation of his following description of a piece of music generated through the improvisation rules he provided ([Drama and Correspondences](#), Harmonia Mundi 20

21803-1). Correspondences are based on the principle of mutual psychological reactions and attempts to 'join' the four participants with each other and to make them increasingly dependent on each other. There are four levels:

- a. The musical material is entirely fixed, but the choice of instruments is left open.
- b. Each musician possesses only incomplete instructions. In order to be able to play, each musician must search for missing material in the performance of the neighbour (pitches from the first, length from the second, etc) and react to it in different ways: imitate, adapt himself to it (if need be, further develop), do the opposite, become disinterested or something else (something 'unheard of').
- c. The composed material is completely substituted by the description of the possibility arising from the reactions of the performers to their neighbours.
- d. On the last level, it is left up to the performers whether to cease playing or to continue; for not even the selection of reactions is now necessary

The possibilities have been discussed separately in relation to polyphony (*Clues to patterns of dialogue from song*, 2011). In the case of poetry, such possibilities of multiple voices (and improvisation) are more commonly explored in some folk traditions (cf. *Strategic Dialogue through Poetic Improvisation: web resources and bibliography*, 2009). No equivalent is to be found in global discourse (cf. *All Blacks of Davos vs All Greens of Porto Alegre: reframing global strategic discord through polyphony?* 2007).

Of great potential interest is the extent to which "versification" as a metaphor could become a driver for search engine development and its capacity to engender memorable transformative conversation. Development of search algorithms, most notably that of Google, is recognized as being highly competitive because of its ability to generate advertising revenue. Engendering transformative conversation might well be recognized as being only an incidental objective of social networking, as could be contrasted with earlier possibilities (*Group Questing or Twelving*, 1976). With the intense cultivation of short-termism, enhancing integrative collective memory may indeed be of the lowest priority.

It could however be argued that in a period of rapid erosion of collective confidence, consequent on its abuse, transformative conversation could constitute a new kind of vehicle for the confidence required to engage meaningfully with the future (as discussed below ***). How then might search engines and groupware enable forms of conversation recognized to be dynamically integrative as "strange attractors" -- in ways transcending the preoccupation with commodified products?

Proposed universes and their conversation potential

Global conversation: Curiously use of the phrase "global conversation" has acquired considerable legitimacy. Implicitly it is however highly restrictive in the sense that it is assumed to refer to conversation amongst those who hold a particular worldview and are happy to buy into that conversation. It typically excludes those who do not -- and who effectively design themselves out of the conversation (or are designed out by other participants). It is then more fruitful to consider that such others may have their own "global" conversations -- but each effectively with respect to a different "globe", perhaps best understood as corresponding to a different worldview located elsewhere in the universe of discourse. Or to other universes in a multi-verse.

Global conversation in this sense precludes "translation" between distant worldviews across that universe -- namely the form of "transformation" whereby interaction between alternative worldviews is fruitfully enabled (cf. *Future Generation through Global Conversation: in quest of collective well-being through conversation in the present moment*, 1997).

Cosmology? More might then be discovered regarding transformative conversation through using the sophisticated considerations of cosmologists regarding the nature of the universe. This approach follows from the argument previously developed that humanity can usefully explore the richer patterns of thinking deployed in one domain in order to articulate their possible relevance to another. The argument was previously developed in terms of "technomimicry" -- as an extension of the current approaches to biomimicry (cf. *Engendering a Psychopter through Biomimicry and Technomimicry: insights from the process of helicopter development*, 2011). In terms of aerospace exploration, technomimicry could guide exploration of possible understandings of "noonautics" (cf. *Towards an Astrophysics of the Knowledge Universe: from astronautics to noonautics?* 2003).

Correspondence between universe and converse: Following from the points made above, the assumption is made here that particular understandings of "conversation" are associated with ways of thinking about "universe". In this sense distinct forms of conversation are to be understood as engendering particular universes of discourse -- through some form of "universation", whereby a degree of coherence emerges. Potentially challenging is the sense in which "converse" is the paradoxical, but necessary, complement to "universe" -- the latter evoking the former for humanity (cf. Gregory Bateson, *Mind and Nature: a necessary unity*, 1979). Is one, in some sense, a paradoxically distorted mirror image of the other?

Whether "universe" or "conversation", a justification could be developed in that in both the physical and psychosocial realms the coherence results from a particular balance between "information", "energy", "matter" and "spacetime", where these may well be understood abstractly, rather than physically, as is the convention. The emphasis here is on the quest for mnemonic clues to fruitful patterns, as separately argued (*In Quest of Mnemonic Catalysts -- for comprehension of complex psychosocial dynamics*, 2007).

Historical cosmology: It is especially interesting to consider the "past" understandings of universe from which current insights have emerged -- on the assumption that many conversations (and understandings of them) might be better reflected for some by those earlier insights, however these may be deprecated by the informed.

The *Wikipedia* entry on universe distinguishes the following "historical models":

- **creation myths:** These have been notably based on narratives of gods acting in various ways. To what extent can this be recognized in the case of conversation -- perhaps as a "conversation" between divinity and humanity? Is this pattern to be recognized in forms of dialogue instigated by facilitators with special skills -- perhaps even including [Bohmian Dialogue](#)?

- **philosophical models:** Philosophers of centuries past reflected extensively on the nature of the universe in ways which might be considered informative of frameworks regarding conversation -- and perhaps more appropriately that offered by David Bohm.
- **astronomical models:** Philosophical insights into the nature of universe have been refined over the centuries by insights from astronomical observation. This pattern can be recognized to a degree in development of understanding of conversation. An argument could well be developed that more recent attribution of "star" to the "enlightened" (even "brilliant") people informing conference communication, and recognition of the manner in which participants "orbit" around them, reflects assumptions regarding a degree of systemic correspondence between the two domains. This history of astronomy, with its radical and controversial shift from the geocentric to the heliocentric pattern, may point to the extent to which many may find greater meaning in a form of "geocentric conversation" rather than in any "heliocentric conversation" -- as well as ignoring the multitude of "stars" in a hypothetical universe of discourse. It is useful to recall that for many astronomers the sun is still understood as "rising" above the horizon.

Proposed cosmologies and possible conversations: As noted above, much innovative thinking regarding conversation is recognized as having been instigated by [David Bohm](#) ("[Bohm dialogue](#)"), a quantum physicist who contributed to theoretical physics, philosophy of mind, and neuropsychology (*Changing Consciousness: exploring the hidden source of the social, political and environmental crises facing our world*, 1991; *The Undivided Universe: an ontological interpretation of quantum theory*, 1993). How did quantum physics reframe understanding of conversation? Is the question comparable to that with respect to Einstein (*Einstein's Implicit Theory of Relativity -- of Cognitive Property?* 2007)) and to Wittgenstein (Susan G. Sterrett, *Wittgenstein Flies a Kite: a story of models of wings and models of the world*, 2005)?

A very helpful framework for exploration of current insights in cosmology is that of the theoretical physicist, and mathematician, [John D. Barrow](#) (*The Book of Universes*, 2012). After reviewing the earlier insights above, he distinguishes current models under the following headings -- each of which may be exploited to suggest a potentially preferred understanding of conversation (as indicated in the right-hand column):

Using imaginative reflection about "universes" to elicit imaginative reflection about "conversations"	
Possible universes Headings of chapters/sections from John D. Barrow (<i>The Book of Universes</i> , 2012).	Possible conversations ? Transformation of chapter/section headings from John D. Barrow (<i>The Book of Universes</i> , 2012).
Einstein Universes <ul style="list-style-type: none"> • Einstein universe of motionless matter • De Sitter's universe of matterless motion • Friedmann's universe of matter in motion • Lemaitre's universe • Universe of Einstein and de Sitter • Tolman's oscillating universe • Lemaitre and Tolman's kinky universe • Milne's universe (and Newton's universes) 	Einstein Conversations <ul style="list-style-type: none"> • Einstein conversation of motionless matter • De Sitter's conversation of matterless motion • Friedmann's conversation of matter in motion • Lemaitre's conversation • Conversation of Einstein and de Sitter • Tolman's oscillating conversation • Lemaitre and Tolman's kinky conversation • Milne's conversation (and Newton's conversations)
Unexpected Universes: the Rococo Period <ul style="list-style-type: none"> • Fractal universes • Dr Kasner's universes • Dirac's universe -- where gravity decays • Einstein and Rosen's undulating universe 	Unexpected Conversations: the Rococo Period <ul style="list-style-type: none"> • Fractal conversations • Dr Kasner's conversations • Dirac's conversation -- where gravity decays • Einstein and Rosen's undulating conversation
Something completely different <ul style="list-style-type: none"> • A Swiss-cheese universe • Perturbed universe • Schrödinger's universe • Gödel's spinning universe 	Something completely different <ul style="list-style-type: none"> • A Swiss-cheese conversation • Perturbed conversation • Schrödinger's conversation • Gödel's spinning conversation
The Steady Statesmen Come and Go with a Bang <ul style="list-style-type: none"> • A universe that always was, is and is to come • A table-top universe • The electric universe • Hot universes 	The Steady Statesmen Come and Go with a Bang <ul style="list-style-type: none"> • A conversation that always was, is and is to come • A table-top conversation • The electric conversation • Hot conversations
Universes, Warts and All <ul style="list-style-type: none"> • Turbulent universes • Distorted universes: from one to nine • Smooth universes and a new observational window • Chaotic universes • Mix master universes • Magnetic universes • The universes of Brane and Dicke • Matter-antimatter universes 	Conversations, Warts and All <ul style="list-style-type: none"> • Turbulent conversations • Distorted conversations: from one to nine • Smooth conversations and a new observational window • Chaotic conversations • Mix master conversations • Magnetic conversations • The conversations of Brane and Dicke • Matter-antimatter conversations
The Beginning for Beginners <ul style="list-style-type: none"> • Singular universes • Which universes are singular? • Cold and tepid universes • An unexpectedly simpler universe • And a unified way of thinking 	The Beginning for Beginners <ul style="list-style-type: none"> • Singular conversations • Which conversations are singular? • Cold and tepid conversations • An unexpectedly simpler conversation • And a unified way of thinking

Brave New World <ul style="list-style-type: none"> • Asymmetric universes • Problem universes • Inflationary universes • Chaotic inflationary universes • Eternal inflationary universes • Suddenly the universe seems simpler again • The many universes run out of control 	Brave New World <ul style="list-style-type: none"> • Asymmetric conversations • Problem conversations • Inflationary conversations • Chaotic inflationary conversations • Eternal inflationary conversations • Suddenly the conversation seems simpler again • The many conversations run out of control
Post-modern Universes <ul style="list-style-type: none"> • Random universes • Probable universes • Anthropic universes • Possible universes • Home-made universes • Naturally selected universes • Fake universes • Universes where nothing is original • Boltzmann's universe 	Post-modern Conversations <ul style="list-style-type: none"> • Random conversations • Probable conversations • Anthropic conversations • Possible conversations • Home-made conversations • Naturally selected conversations • Fake conversations • Conversations where nothing is original • Boltzmann's conversation
Fringe Universes <ul style="list-style-type: none"> • Wrap-around universes • Quantum universes • A self-creating universe • Colliding universes • The dying of the light • Hyper-universes 	Fringe Conversations <ul style="list-style-type: none"> • Wrap-around conversations • Quantum conversations • A self-creating conversation • Colliding conversations • The dying of the light • Hyper-conversations
The Runaway Universe <ul style="list-style-type: none"> • The best-buy universe • The preposterous universe • The puzzling universe 	The Runaway Conversation <ul style="list-style-type: none"> • The best-buy conversation • The preposterous conversation • The puzzling conversation

For a classification of universes, see also Ruediger Vaas (*Time before Time: classifications of universes in contemporary cosmology, and how to avoid the antinomy of the beginning and eternity of the world*. *Bild.Wiss.*, 10, 2004, pp. 32-41).

Universe of discourse: Given the importance of the universe of discourse to the future of humanity's knowledge-based society, the table above raises the question as to where consideration is given to the ways in which the right-hand column might be understood -- corresponding to the quality of imaginative reflection on the nature of the "physical" universe in the left-hand column.

A relevant account is provided of recent research by Stephen Hawking and colleagues (arxiv.org/abs/1205.3807), who have shown that the universe may have the same surreal geometry as some of art's most mind-boggling images (Lisa Grossman, *Hawking's 'Escher-verse' could be theory of everything*, *New Scientist*, 9 June 2012). This offers a way of reconciling the geometric demands of **string theory**, a still-hypothetical "theory of everything", with the universe as observed -- through a negatively-curved Escher-like geometry (essentially a hyperbolic space). Their results rely on a mathematical twist previously considered impossible, namely the use of a **negative cosmological constant** rather than a **positive** one. The new approach provides a description of "all the possible universes that could have been -- including ones in which the solar system never formed, or in which life might have evolved quite differently". Making conventional use of a positive cosmological constant, it had proven impossible to describe universes that were "anything more than clunky approximations to reality." A plethora of universes have now been generated from wave functions with negative cosmological constants

To the extent that the geometry of a universe is indicative of a particular conversational modality, similar insights might apply to imagining a plethora of conversations. There is a certain charm to adapting the "string theory" metaphor to a conversational context -- given the extent to which it has been adopted in the form of "thread" in online threaded discourse (J. Hewitt, *Beyond Threaded Discourse*, *International Journal of Educational Telecommunications*, 2001; Li Wang, et al., *Predicting Thread Discourse Structure over Technical Web Forums*, 2011). [see also *Interweaving Thematic Threads and Learning Pathways*, 2010]

Is discourse about conversation as rich as discourse about the universe? If not, why not? The former could be held to be vital to the survival of human civilization in the shorter term, whereas the latter is only of potential significance to its survival in the longer term. How might priorities in the allocation of resources to each then be fruitfully compared?

Conversations of cosmologists: Barrow offers various anecdotal accounts about the conversations amongst cosmologists regarding the competing models of the universe variously proposed. Provocatively it might be asked whether science has envisaged models of the "universe of conversation" of a complexity corresponding to that proposed for the physical universe. Or are the models of conversation implicitly employed by cosmologists typical of the simplistic models of discourse in other domains -- as Barrow's anecdotes suggest? Why might that be the case?

Speculation on the nature of the universe by cosmologists is closely related to that on how the **shape of the universe** is to be envisaged. Participants in dialogue may also have an intuitive sense of the "shape of a conversation" -- possibly bearing some correspondence to geometry attributed to the universe.

Selective cosmology: There is a tantalizing sense in which the left-hand column could be understood to reflect creative "cherry-picking" by cosmologists from an array of essentially geometric possibilities (readily presented metaphorically). This suggests that greater

attention should be given to the nature of the array from which models could be variously selected. Might it resemble a periodic table of the kind that has proven elusive to ordering mathematics itself -- as the science of relationships par excellence (*Mathematical knowledge management*, 2009; *Missing "map" of mathematics: a self-reflexive "periodic table"?* 2009).

Is there then a sense in which creative selection from that array -- acclaimed "innovative breakthroughs" in cosmology -- is partially determined and reinforced by cognitive preferences, as discussed separately with respect to *Systems of Categories Distinguishing Cultural Biases* (1993), and most notably the work on **cognitive biases** of **W. T. Jones** (1961). In this sense is human engagement with cosmology to some degree a matter of "dancing" around an array of possibilities -- such that it is the patterning of the dance itself that offers insights of a higher order? A meta-pattern of connectivity in the terms of Gregory Bateson..

The issue is then not whether the universe "is" according to how some preferred model would have it. Rather **the issue is how human understanding of the universe is constrained by cognitive capacity at its best** -- and how whomever is then able to comprehend that articulation in preference to one that is more simplistic and more readily comprehensible. **The same would tend to apply to conversation.**

Selective conversation: A corresponding argument could then be developed with respect to conversation, with various creative models resulting from cognitive biases relating to selection from an implicit "menu" of possibilities -- with the organization of the "menu", and the nature of the "dance", offering insights of a higher order, as previously discussed (*Periodic Pattern of Human Knowing: implication of the Periodic Table as metaphor of elementary order*, 2009). Conversation is then firmly recognized as a feature of (collective) learning (*Periodic Pattern of Human Life: the Periodic Table as a metaphor of lifelong learning*, 2009).

Democratic discourse: It is useful to contrast this possibility with the "conversations" which characterize the forms of political discourse upheld as central to the democratic process to which societies are encouraged to aspire as the fruit of historical development (cf. **Francis Fukuyama**, *The End of History and the Last Man*, 1992). Again it could be asked whether the degree of conversational innovation in the political universe should be "challenged" by the conversational possibilities suggested by the table above.

Will the future consider the current simplistic pattern of democratic parliamentary discourse to be laughable -- essentially ensuring the forms of conversation which are non-transformative guarantees of "business as usual", whilst vigorously claiming the contrary? This is especially strange in that opposing parties typically frame their perspectives as incommensurable -- to the point that representatives of each could credibly ask the other what "universe do you come from"?

A variety of forms of parliament (cf. Alan Siaroff, *Varieties of Parliamentarism in the Advanced Industrial Democracies*, *International Political Science Review*, 24, 2003; Michael Coppedge, *Varieties of Democracy: rethinking democracy measurement*, Kellogg Institute for International Studies, 2012). How many kinds of democratic discourse are open for consideration in those contexts, or recognized as active in global society? As conversations, how complex are those recognized in comparison with the complexity considered necessary for adequate comprehension of the "universe"? Reframing Fukuyama's thesis, is it rather the case that reflection on new possibilities of conversation is defined as having ended -- all necessary "transformation" having been accomplished?

Conversation with alien lifeforms: In a period of considerable investment in the search for alien life on Mars, and elsewhere in the known universe, it is appropriate to consider the possible forms of "conversation" that may become credible (cf. *Communicating with Aliens: the psychological dimension of dialogue*, 2000; *Self-reflective Embodiment of Transdisciplinary Integration (SETI) the universal criterion of species maturity?* 2008). There is a profound irony to the possibility of such "contact", given the continuing demonstration of incapacity to communicate with those defined explicitly as "alien" by conversational processes in human society -- according to particular cognitive biases (as with "other" ethnic groups, "other" faiths, "other" sexual orientations, "feral youth", the Taliban, etc).

Conversation understood through a variety of metaphors

Use is made above of "universe" as a guiding metaphor for exploring "conversation". This suggests the possibility of other metaphors through which conversation might be explored (cf. *Guidelines towards Dialogue through Metaphor*, 1993; *Dialogue: metaphors of transformation in conferences*, 1995).

Ball sports: Reference was made above to "technomimicry" as providing guidelines to reflection on the nature of conversation. This suggests that such an approach to the acquisition of insights could be extended to "ludomimicry" -- following the critical arguments of **Roger Caillois** (*The Definition of Play and the Classification of Games*, 2006) regarding those of **Johan Huizinga** (*Homo Ludens: a study of the play-element in culture*, 1950), as discussed by Andrew Brown (*Agon, Alea, Mimicry and Ilinx, Embodied Knowers*).

As might be expected, a degree of mathematical insight has been brought to bear on team building and the effective operation of teams. This is most evident in the analysis of **passing patterns** in ball games -- effectively a metaphor for the missing analysis of how the "point" is "passed" in conversation, even though "point scoring" is a process common to both domains (Athalie Redwood-Brown, *Passing patterns before and after goal scoring in FA Premier League Soccer*, *International Journal of Performance Analysis in Sport*, 2008; Association for Soccer Education and Teaching, *Passing Patterns and Small Sided Games*, 2008; Alan Reifman, *Network Analysis of Basketball Passing Patterns II*, 2006; Patrick Riley, *Coaching: Learning and Using Environment and Agent Models for Advice*, 2005).

From a perspective of ludomimicry, the question is then whether ball games can be "re-cognized" as constituting an implicit understanding of contrasting forms and styles of conversation between participants -- and the spectators they inspire as followers. Can tennis, soccer, rugby, water polo, croquet, volleyball, ice hockey, golf, snooker, and the like, be interpreted (systemically) as conversations of various kinds -- possibly of greater complexity than conventional conversation? **Are games to be understood as conversations unable to happen conventionally?**

Is there a sense in which society elicits such game-playing to rehearse the styles of conversation to which it cannot otherwise give direct and explicit expression? Do such games embody insights of greater meaningful import than "sustainable development"? Might this explain

their evident function as "strange attractors"?

Is it their capacity to embody understanding of complex dynamics in movement which calls for recognition -- in the light of recent explorations (George Lakoff and Mark Johnson, *Philosophy In The Flesh: the embodied mind and its challenge to Western thought*, 1999; Maxine Sheets-Johnstone, *The Primacy of Movement*, 1999; Mark Johnson, *The Body in the Mind: the bodily basis of meaning, imagination, and reason*, 1987; Lawrence Shapiro, *Embodied Cognition*, 2010).

Could it be argued that at some level people "know" of subtler forms of conversation, but displace their insights into more tangible models? Does this offer new global significance to the Olympic Games and various world championships? How does such game-playing relate to the possibility outlined by James P. Carse (*Finite and Infinite Games: a vision of life as play and possibility*, 1997)?

Electronic games: Especially interesting is the manner in which these games now endeavour to embody the dynamics of face-to-face games, as well as extending the possibilities of games beyond the restrictions of physical and other constraints. Through also incorporating the dynamics of war games and shoot-em-ups, games offer abstract recognition of movement of the "point" of conversation and "point scoring". Also of interest is the very extensive incorporation of mythical characters and magical behaviours transcending the conventional dimensions of physical reality, as in **multiplayer real-time virtual worlds** (MUDs). Many ongoing **online games** now embody considerable conversational opportunities between participants in a global context, most notably the **massively multiplayer online games** (MMOG). Many issues of governance emerge and are variously addressed

These many features suggest that online gaming is reframing many aspects of conversation, or providing the infrastructure to do so beyond the capacity of academic simulations. The question is how its transformational potential is to be recognized and developed (cf. *Playfully Changing the Prevailing Climate of Opinion: climate change as focal metaphor of effective global governance*, 2005).

Dance: Of great relevance to any exploration of "transformative conversation" is the manner in which it can be understood as variously embodied in patterns of dance, or encoded by them. It is now remarkable the extent to which the range of these patterns has been embodied in libraries of animations readily accessible over the web (or **under development**). Of particular interest is the schematic approach (with music) used by **Dance Animations**, as illustrated by the following *****

These suggest the pertinent questions as to whether:

- formal dances typical of receptions at global conferences (waltz, foxtrot, etc) reflect a conventional mindset typical of conversation at those events,
- modern dances reflect aspirations to new patterns of conversation
- traditional folk dances hold insights into valuable patterns of conversation which tend to be neglected and marginalized -- irrespective of how they are valued where they are employed.

Environment: As noted above, exploration of biomimicry is now recognized as offering a valuable means of acquiring insights of relevance to the development of technology. It might then be asked whether nature offers the possibility of valuable insights with respect to human conversation -- beyond the above-mentioned framing offered by intercourse ("*Human Intercourse*": "*Intercourse with Nature*" and "*Intercourse with the Other*", 2007).

One approach is via that developed by Edward Haskell with respect to the patterns of interaction between species -- predation, commensalism, symbiosis, etc -- as articulated in his *Full Circle: the moral force of unified science* (1972) and developed by Timothy Wilken (*UnCommon Science*, 2002). These insights have been reframed systemically as a set of "games" basic to human relationships (*Cardioid Attractor Fundamental to Sustainability: 8 transactional games forming the heart of sustainable relationship*, 2005). Such games could be understood as conversations -- especially since "symbiosis" is, for example, explicitly valued with respect to conversation, just as "predatory conversations" are deprecated, however widely practiced.

It is appropriate to note that types of ecosystem are used metaphorically to describe conversations, most evident being "jungle" in its dangerously problematic sense. It could then be asked whether "jungle" (as tropical forest) offers pointers to types of conversational context in which the greatest variety of perspectives is able to co-exist -- despite the challenge of comprehending the complexity of that dynamic. This then suggests the value of recognizing any conversational "wilderness" or "wetland". The latter is especially interesting in that it implies that some conversational arenas offer a safe space for perspectives which "migrate" between distant hemispheres distinguished by their global orientation. These cases are also suggestive of the problematic consequences of "developing" conversations for simplistic purposes.

Environmental metaphors could be explored further, especially in the light of climate change (cf. *Climate Change as a Metaphor of Social Change: systemic implications of emissions, ozone, sunlight, greenhouse and overheating*, 2008). There is a particular charm to the consequences of "emissions", given the volume of "hot air" emitted in national and global decision-making arenas (*Sins of Hot Air Emission, Omission, Commission and Promise: the political challenge of responding to global crises*, 2009). Other possibilities have been discussed separately (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009)

Material processes and transformation: Widespread understanding of certain transformative material technologies has resulted in their use as metaphors with regard to conversation. The question is whether further exploration of those technologies, as metaphors susceptible to cognitive internalization, would offer guidelines to more transformative conversation. Examples include:

- **drill / bore:** The former is now in common use in data mining, namely in the sense of "drilling down" to greater detail. In conversation it may be recognized in interrogative questioning. Whilst "bore" may be similarly used, it is more familiar as the process through which linear tedium is introduced into a conversation -- engendering "boredom".
- **pump / drain:** The former is commonly recognized when one participant in a conversation "pumps" the other for information. Use of "drain" may reflect the sense of being "drained" by such a "pumping" process.

- **irrigate / dam:** The former is rarely used as such with respect to conversation although the need to respond to the (potential) "aridity" of a conversation may engender an equivalent process. Some processes of "public relations" may respond to this concern. Recognition of "damming" may be evident where the "flow" of a conversation is felt to be blocked. Concerns may be expressed regarding breaking through what has been "dammed up".
- **dump / excavate:** The former is commonly recognized when one participant in a conversation indulges in "dumping" (unwanted) information and preoccupations on the other. This process may be termed a "mind dump". Use of "excavation" tends to be evident in the same context as "drilling down".
- **distill:** As a metaphor this chemical engineering process is one commonly used in eliciting the essence of a conversation. Many other such processes merit exploration from this perspective.
- **plough / compact:** The former is occasionally used in relation to "preparing the ground" for a conversation. Use of "compaction" is more evident in the process of "consolidation", but may be noted when one party or agenda is used (questionably) as a "steam roller" to smooth the conversational ground.

These examples all illustrate ways in which external processes hold insights into processes which may be internalized in conversations. The question is whether there is any understanding of how to use them more systematically to cultivate and develop more appropriate conversations.

Conversational vehicles: conventional and paradoxical

Especially interesting is the sense in which conversations are understood metaphorically as offering "vehicles" for social interaction. Given the worldwide use of vehicles of contrasting technological sophistication, and the intense focus on the development of vehicles (most notably automobiles), does "technomimicry" then suggest ways of transforming conversations?

Conventional vehicles: Imaginative reflection can most readily focus on:

- **automobiles**, whose familiarity to so many could imply a corresponding familiarity with a particular style of conversation. The preoccupation with developing their energy efficiency, speed, power and safety invites speculation on the development of conversation. The tendency for their designs to converge to the point of becoming indistinguishable merits consideration with respect to conversation. The need for **all-terrain vehicles** and **off-road vehicles** extends the possibility of reflection -- especially in the light of the territorial concerns fundamental to many conversations.
- **public transport**, as with buses, trains and planes, again suggests (through their very familiarity) the sense in which conversations are typically "packaged" according to some convention. The experience of a cruise ship is especially indicative of how a particular style of conversation is enabled -- even including the efforts of animators to transform that experience.
- **load-moving vehicles**, typically trucks in all their variety, are indicative of how a conversation may be configured to shift a weight of concern. Further reflection may be inspired by **earth-moving equipment** (bulldozers, etc).
- horse and cart ****
- bicycle -- cycle paths

Frames of reference: Space ships are particularly interesting in that, understood abstractly, they are "frames of reference" moving in relation to other frames of reference within the universe of knowledge -- the known universe -- fruitfully to be explored in the light of the Special Theory of Relativity. Disciplines as modes of knowing can similarly be understood as credible frames of reference -- irrespective of how "incredible" any other frame of reference may appear from any one of them. More generally still, the metaphors in relation to which modes of knowing are articulated can themselves be understood as "vehicles", as separately explored (*Metaphors as Transdisciplinary Vehicles of the Future*, 1991).

Paradoxical vehicles: Especially intriguing is the possibility of "paradoxical vehicles", constructed on the basis of paradoxical topology, as exemplified by the **Klein bottle**. As frames of reference, such vehicles may lack any distinction between "inside" and "outside" characteristic of other vehicles as containers, as extensively discussed by Steven M. Rosen (*Topologies of the Flesh: a multidimensional exploration of the lifeworld*, 2006; *Dimensions of Apeiron: a topological phenomenology of space, time, and individuation*, 2004). These containers might be the vehicular equivalent of the paradoxical staircases in the drawings of M. C. Escher (such as *Relativity*, 1953) -- a theme of Douglas Hofstadter (*Gödel, Escher, Bach: an Eternal Golden Braid*, 1979).

An earlier reference to such vehicles, by William I. Gorden, offers a fruitful link to the above consideration of games as implicit (or disguised) conversations:

Games are paradoxical vehicles for trying out alternatives and consequences with both involvement and detachment, where mistakes can be made without serious injury. Some academic games create miniature environments particularly suited to studying concepts and content of speech communication. (*Academic Games in the Speech Curriculum*, *Central States Speech Journal*, 20, 1969, 4)

In a discussion of the **synchronicity** explored by Carl Jung, **Ira Progoff** offers further insight into such vehicles:

As long as they remain fluid, however, they are like deep dreams and myths that provide a living connection to the elusive and transpersonal reality of the universe. Then the symbolism of each provides a way. While one is literally true in itself, all are true in

some form and in some degree as paradoxical vehicles traveling toward a place of spirit that can only be reached indirectly (*Jung Synchronicity and Human Destiny*, 1973, p. 14)

Brian Holmes examines the attempt by Félix Guattari to create a "metamodelization" of the ways people join experimental assemblages in order to escape the behavioral patterning of cybernetic systems. These "assemblages" might well include conversations. For Holmes (*Escape the Overcode: Guattari's schizoanalytic cartographies, or the pathic core at the heart of cybernetics*, *Continental Drift*, 2008):

Guattari... was particularly aware of the ways that behavior is patterned and environments are constructed. His lifelong preoccupation with delirious machinism clearly has literary and artistic roots in the French avant-garde tradition... but it is also an attempt to respond to the construction of homeostatic environments and the patterning of behavior within them. The key concept here is "overcoding."

Overcoding is defined in *A Thousand Plateaus* [1980] as the expression of the capitalist axiomatic, resulting in "phenomena of centering, unification, totalization, integration, hierarchization and finalization." But far from being just a linguistic phenomenon, overcoding works through the built environment, which must be conceived as inseparable from its many language machines (billboards, speakers, televisions, computers, etc.). The desire to formulate collective enunciations through participation in deterritorializing flows is an attempt to speak another kind of language, and more than a language.... However, Guattari in particular would always insist that semiotics extends beyond language, to embrace all signifying systems, whether visual, affective, gestural, volumetric, musical, etc. **Thus his call for the creation of truly complex machines, simultaneously aesthetic and logical, pathic and rhizomatic: paradoxical vehicles of an embodied attempt to escape the overcode.** [emphasis added]

Holmes helpfully clarifies Guattari's understanding of how this could be done in relation to cybernetics and the [theory of general systems](#):

Again we must refer to cybernetics. The bugbear of early cybernetic engineers was positive feedback. It was conceived as a danger for homeostasis; and any correctly designed cybernetic system had to have damping mechanisms, to keep excessive feedback from causing the system to oscillate out of control. However, what Heinz von Foerster dubbed "second-order" cybernetics was interested precisely in positive feedback, and thence, in the passage of critical thresholds and the event of phase-changes.... *A Thousand Plateaus*, on the other hand, consciously partakes - though on its own highly idiosyncratic terms - in a larger, counter-cultural shift toward second-order cybernetics, a shift which is signaled in the very title of the book by the reference to Bateson (a transitional figure between the two periods of cybernetic theory).... From the early 1980s, Guattari's theoretical and experimental practice articulates a deliberate opposition to the environmental overcoding imposed by the models of first-order cybernetics.

For Holmes, Guattari's *Cartographies schizoanalytiques* (1989) remains practically unread in the English-speaking world, due to its linguistic and theoretical difficulty. It is a work of "metamodelization" (of considerable potential relevance to future understanding of conversation as discussed here):

In other words, it is an attempt to invent a diagrammatic matrix that can indicate the ways different models are put to work in existential and social worlds. It is based on four coordinates or "functors": existential Territories, which appear in the form of cutouts; **Universes** of reference, which appear as constellations; energetic **Flows**, which appear as complexes; and **Phyla** of abstract machines, which appear as rhizomes (T, U, F, Φ). The interrelations of these four functors map out a self-overcoming system oriented toward the event of the phase-change, in which Guattari sees the possibility of collective speech. What's being sought is the capacity, not only to describe, but above all, to experiment with a process of becoming. And this is what has made the schizoanalytic cartographies such important tools for the experimental assemblages of artistic practice.

Consistent with reference above to embodied cognition in relation to patterns of movement in ball games, Holmes argues:

The beauty of Guattari's metamodelization is that, unlike the models of cybernetics or cognitivism, it leaves ample room for a pathic core of endo-referential subjectivity. This subjectivity is grounded in its own intensities; but its actual cutouts of territory are linked to the virtuality of artistic constellations via the continual echo in embodied consciousness of refrains, or "blocks of content," which have the effect of deterritorializing the experience of an existential territory. What the metamodelization aims to reveal, however, is the movement from the content of this subjective, enunciative field into the expression of objective social process, from which concrete enunciations emerge.

Holmes raises valuable questions concerning the relative value of such metamodelization following the subsequent emergence of "complexity theory", but especially:

... how has the original goal of cybernetics (instrumental mastery over the dynamic interactions of a complex system) been further developed by contemporary cognitive science, and what kinds of built environments are now coming down the governmental and corporate pipe? Does the pathic core of Guattari's schizoanalytic cartography offer any clues as to how such built-and-informationalized models could be subverted or subsumed? Or should his metamodelization be cast aside, as no longer useful for the problems of the present?

Transformative conversation in the light of interwoven metaphors

Dynamics of "light": As discussed previously, it could be considered extraordinary the degree to which reliance is placed on optical metaphors in "envisaging" the future (*Metaphor and the Language of Futures*, 1992). Whilst metaphors based on the other senses are in use, notably in political discourse, strategic articulation is not credible when based metaphorically on "touch", "feel", "taste", or "smell" -- possibly the preference of an "alien" for whom the "stench" of a strategy might be unbearable.

There is therefore a case for exploring the role of "light" in human conversation -- especially given that the conversation may be considered "brilliant" and "enlightened", offering a hopeful "light at the end of a tunnel" of some crisis. Even though it may be framed more generally in terms of [electromagnetic radiation](#), it is of course the case that "light" is fundamental to understandings offered by cosmologists of the nature and dynamics of the universe inhabited by humanity.

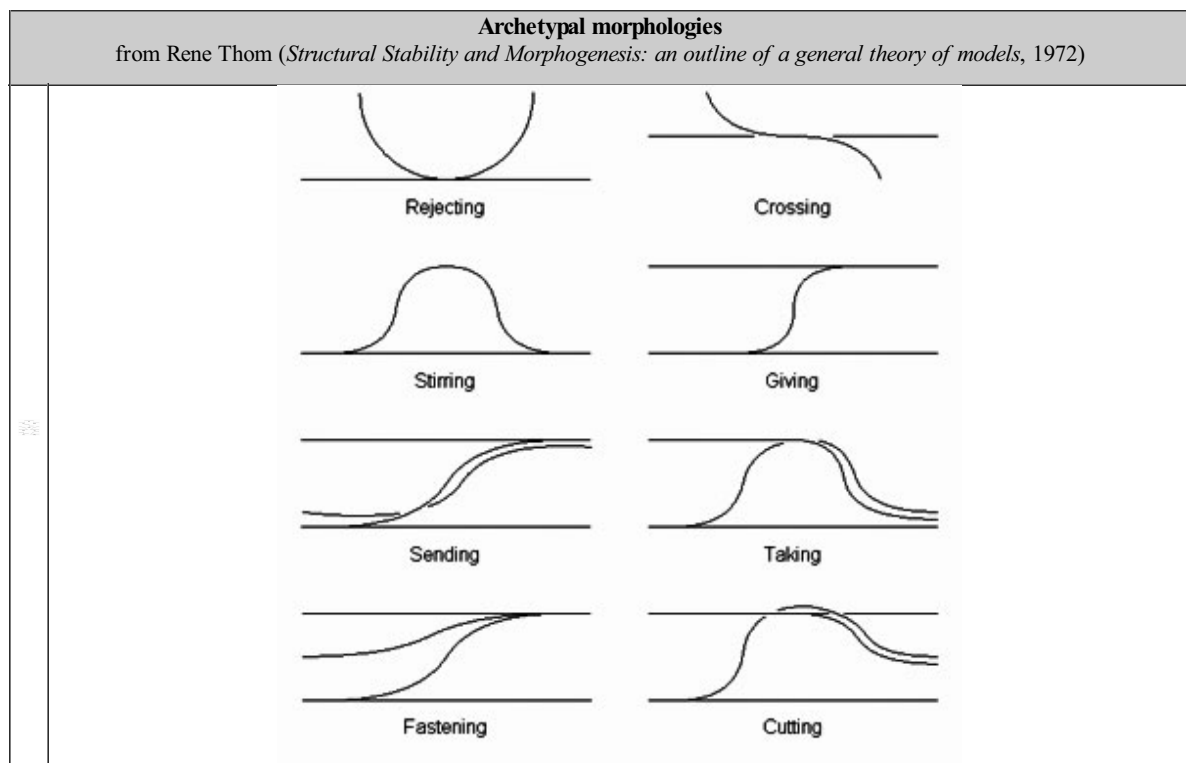
Rather than focus specifically on the "poetry" of conversation, through the versification which may indeed enhance memorability and delight, more may be achieved through exploring the implicit "light" of connectivity -- exploring "how the light moves", understood both as indicative of the light of comprehension, and more subtly (cf. *Circulation of the Light: essential metaphor of global sustainability?* 2010).

The implications may then reinforce insight into the dynamics of cybernetic connectivity and how transformative conversation is envisaged and sustained dynamically. Especially valuable would be how imagination -- with its optical connotations -- is enabled and engaged through a confluence of understandings with those embodied in movement (dance), as reinforced by the aesthetics of musical harmony (and the possibilities of creative [variations](#)).

Initially the process could then be to exploit the range of prefixes of "verse" (as detailed above) -- in terms of their relevance to the movement of light in optical systems. In effect the question is in how many ways the movement of light can be transformed from the linearity of its conventional mode? It is a quest for the generic possibilities of transformation, as might be readily comprehensible (rather than how that range might be articulated mathematically). Examples might then include:

- converse, as in changing from one form to another, including turning around, especially as in the conversion to a new pattern -- contrasting recognizably with the old, if not its opposite
- reverse, as in return to a former condition or position, namely turning back with respect to the current direction.
- transverse (or traverse), as in movement crossing another, orthogonally -- even blocking it
- inverse (including everse), as in turning upside down or inside out.
- obverse, as in the side which is the reverse of the reverse side (perhaps best understood as the "obvious" side)

Variety of transformations: The pattern of comprehensible transformations could be fruitfully extended through dance (as indicated by the animations above), transpositions of key (as in musical variations), and familiar optical illusions (mirages, etc). In this spirit it is appropriate to note the pattern of 16 fundamental "archetypal morphologies" in the figure below, and discussed separately (*Archetypal morphologies*, 2012), as identified by topologist [Rene Thom](#). Of specific relevance are the "metaphorical" terms, by which he briefly describes the nature of each.



The suggested approach is then to interweave, as appropriate, several metaphorical patterns offering insights into transformation:

- the various ways in which **light** can be manipulated by optical systems, most notably with the use of mirrors and lens -- and the possibility of creating "illusions". The argument has been developed separately (*Patterning Archetypal Templates of Emergent*

Order: implications of diamond faceting for enlightening dialogue, 2002)

- the many well-explored ways in which **musical harmony** can be transformed, through variations and transposition of key
- the possibilities of transformation of relationships elaborated in different styles of **dance**
- the insights offered by the systematic analysis of **dramatic plots** of various kinds, understood as transformations of relationships, such as that of **Georges Polti** (*The Thirty-Six Dramatic Situations*, 1916) who endeavoured to categorize every dramatic situation that might occur in a story or performance -- building on the earlier work of **Carlo Gozzi**. (see separate discussion *Taxonomies of dramatic situations*, 2009).

Presumably these transformations could be rendered abstractly, as suggested by the archetypal morphologies of Rene Thom (*Structural Stability and Morphogenesis: an outline of a general theory of models*, 1972). This would suggest the use of other general systems, cybernetics, and mathematic tools to elicit a more comprehensive range of transformations. These might then include those envisaged above by cosmologists in relation to "universe".

Interweaving these understandings of transformation enables the integration of other processes (well-explored in drama, as widely experienced daily through the media), namely controversy and perverse -- in their relation to diverse, multiverse, and universe.

Complementarity of university and conversity?

It is in the light of such interwoven metaphors of transformation that the sense of "conversing" can be further developed in relation to any sense of conformity within a "universe" of discourse exposed to catastrophes -- currently best encompassed by the understandings from drama. These offer a means of considering the questions raised by such catastrophes more systematically, as discussed separately (*Conformality of 7 WH-questions to 7 Elementary Catastrophes: an exploration of potential psychosocial implications*, 2006)

Context for changing paradigms: Given the manner in which "universities" have metaphorically appropriated "universe" as an indication of the all-encompassing scope of their preoccupations, it might be assumed that the possibilities and varieties of "conversation" would be a significant concern in that context. This would follow from the admiration traditionally accorded to the Platonic symposium and the assumption that this has continued to develop in academic discourse.

Since academic discourse has proven to be as inadequate to the times as any other, could a case be made for a "conversity" to complement the normatively restrictive functions of a "university"? It could then be recognized that "university" is associated with the dominant extant **paradigms**, whereas "conversity" provides the appropriate "con-tainer" for the transformation between paradigms and their emergence -- for "**con-ceptual**" revolutions, as debated following the work of **Thomas Kuhn** (*The Structure of Scientific Revolutions*, 1962).

A related concern is the case for a "university of disaster" that would provide a context for a *mea culpa* of the science that have failed to address their own ethical and philosophical deficits, as argued by **Paul Virilio** (*The University of Disaster*, 2010). This would include a kind "hospital" of science and technology that would face up to the accident in knowledge resulting not so much from the failures of the sciences as from their spectacular successes. Virilio argues this would ensure, as for the life of our bodies, that the climate of our minds could be treated like a patient suffering from the fatal consequences of a long-term illness.

Dark matter, ignorance and the unsaid: Especially provocative to this implication is recent recognition by cosmologists of the preponderance in the universe of **dark matter** and **dark energy** -- about which very little is known or understood. It might be asked whether corresponding acknowledgement is warranted in the case of conversation and the extent of the "unsaid", as mentioned above (*Varieties of the "Unsaid" in sustaining psycho-social community*, 2003). A mathematical approach to such "darkness" could be said to have been extensively researched by Ron Atkin with regard to communication within universities (*Combinatorial Connectivities in Social Systems; an application of simplicial complex structures to the study of large organizations*, 1977; see [summary](#)).

From an aesthetic perspective there is an additional charm to the "dark sound" of **duende** (noted above) as the transformative moment in the Spanish performing arts through which "soul" is engendered as a heightened state of collective emotion, expression and authenticity - *- that mysterious power that everyone feels but no philosopher can explain.*

A case has been developed separately for appropriate integration of the otherwise neglected (*Designing Global Self-governance for the Future: patterns of dynamic integration of the netherworld*, 2010) This uses the Fibonacci spiral to relate arenas which are variously explicit, denied, or of extreme existential subtlety in order to clarify the archetypal associations of any "positive" initiative with an "upperworld" and its condemnation of opposing initiatives to a "netherworld" (cf. *Cognitive embodiment of an "underworld" into governance*, 2010).

Conversity? Such a provocative possibility would then imply that a conversity could encompass the "dark arts" to which individuals and society have been rendered so vulnerable through the manner in which they are neglected (*Engaging with the Inexplicable, the Incomprehensible and the Unexpected*, 2010; *Unthought as Cognitive Foundation of Global Civilization*, 2012). These would include the strategic **arts of persuasion** and **psychological manipulation**, so notably characteristic of the **confidence trickery** of current political discourse and marketing -- and only too evident in the complicities which have engendered the current global financial crisis. *Wikipedia* offers an indicative *List of confidence tricks*.

Developing the facility for the deployment of these skills would seem to have been a particular function of university business schools. A conversity would however encompass development of the critical complementary skills to survive and reframe a miss-selling conversation (cf. *Web resources: Critical thinking vs. Specious arguments*, 2001). Metaphorically it could well be a place where "cognitive bullfighting" skills are developed (cf. *Viable Global Governance through Bullfighting: challenge of transcendence*, 2009).

A distinct use of the term, responsive to development of the web and duly registered as a trademark, was introduced as the basis of a business model by **Erik Wallin** (*European Conversity: towards a community of practice for collaborative deep eLearning in eBusiness*.

Lund University, 2003). The "conversity model" has since been variously employed with respect to the business potential of social media -- but without indication of any trademark.

Of further relevance is the manner in which skills inspired by (Eastern) martial arts are used in strategic thinking and marketing (Gao Yuan, *Lure the Tiger Out of the Mountains: the 36 stratagems of ancient China*, 1991). These are necessarily intimately related to skills with knowledge and information (see adaptation *Table of Stratagems* and *Table of Confidence Ploys*). Might the "36 stratagems" be systemically and aesthetically related to the "36 dramatic plots" (as identified by Georges Polti) with which people develop unconscious familiarity through the media (cf. *Ensuring Strategic Resilience through Haiku Patterns: reframing the scope of the "martial arts" in response to strategic threats*, 2006).

"Con-tested discourse" and global sensemaking : The concerns of a conversity suggest a reframing of ongoing research into "contested discourse", most notably in relation to "wicked problems", as mentioned above (Clara Mancini and Simon Buckingham Shum, *Modelling Discourse in Contested Domains: a semiotic and cognitive framework*, 2006; Anna De Liddo, Agnes Sandor and Simon Buckingham Shum, *Contested Collective Intelligence: rationale, technologies, and a human-machine annotation study. Computer Supported Cooperative Work (CSCW)*, 2012). It could be argued that a far greater range of problems could now be considered as "wicked" in the light of the inability of reasonable people to reach consensus on remedial responses -- as evident from the conflictual nature of political discourse.

It could then be asked whether any discourse has been appropriately "con-tested" -- to ensure the possibility of transformative "conversation". If the converse cannot be integrated into a conversation within a universe of discourse, then the conversation can be understood as inherently unable to embody the dynamics of transformation in all its variations.

The quest for global sensemaking -- making meaning -- would seem to need to be "informed" by the cognitive attraction of the transformations widely "re-cognized" and embodied in (ball) games, (extreme) sports, music and dance. Each of these variously involves "contest" and is readily understood as a constituting a test of "confidence". "Sensemaking" would then embody dimensions of what is valued in "music-making", "love-making" and "poetry-making" (as argued above) -- most significantly by those who are not engaged by academic conversation.

Necessary complementarity: The complementarity could be expressed as follows:

- **university** cultivates the knowledge of the universe -- or the research through which that knowledge will finally and definitively emerge, if only by successive approximations -- asymptotically
- **conversity** cultivates the dynamics of transforming articulated knowledge continually, notably challenging the adequacy of any definitive presentation favoured in the moment -- effectively "recycling" the accumulating (commodified) "cognitive waste" thereby produced.

Whereas university professes the emergent insights into This and That, conversity elicits and denies the complementarity of Not This, Not That -- as indicative of an underlying, atemporal cognitive dynamic, notably celebrated by the Sanskrit adage *Neti Neti*. The ambiguity of this complementarity, encompassing "con" in its devious sense (calling for heightened vigilance), would then engage with the uncertain experiential reality of the wider population (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011; *Living with Incomprehension and Uncertainty: re-cognizing the varieties of non-comprehension and misunderstanding*, 2012; *Towards the Dynamic Art of Partial Comprehension*, 2012).

From a Taoist perspective, this complementarity is further enhanced by the sense in which both "contested discourse" and "conversity" have been elaborated to a degree (as illustrated by the examples cited) through their enclosure within the restrictive context of "university". The question is how "university" might then be enabled within the controversial context of "conversity" -- perhaps as a **University of Earth**? Expressed in this way, the complementarity then recalls the symbol of the Tao as representative of the cognitive processes in an ironically fundamental form of conversation (*Snoring of The Other: a politically relevant psycho-spiritual metaphor?* 2006).

Metaversity? Given implications (discussed above) that "universe" suggests a form of closure precluding any "converse", a case might well be made for recognition of a "metaverse" -- beyond the arguments made for a conversational "multiverse". Aspects of that argument have been developed separately (cf. *Higher Education & Meta-education? Transforming cognitive enabling processes increasingly unfit for purpose*, 2011). Again, does "university" currently offer a metaphor of conversational failure? Is this effectively the reason for a **Metaversity Project** -- a "gathering place for transdisciplinary researchers"?

Conversing with "oneself"

The exploration through metaphor could be taken further, and given greater "focus", through the framework of organized human activity through which the environment is "transformed" -- then suggestive of how patterns of conversation might be transformed. Especially intriguing for the individual is the sense in which such patterns of activity can be detected in personal engagement with the environment. Examples include:

- **farming**, whether practiced intensively or over larger domains -- offering the contrast evident in tightly organized conferences as against episodic and occasional interaction. For the individual, however, there is a sense in which everyone is a farmer -- variously cultivating fields of knowledge and experience over which each can claim ownership and for which each has responsibility. Fields can be ploughed, crops can be grown and harvested, or the land can be allowed to lie fallow. As with any farmer, there are concerns regarding the weather, drought and irrigation. and with the fertility of the land. Most fundamental is the deeply felt sense of engagement and bonding with the land, potentially ever more diffuse with the size of the domain. As a farmer, one is engaged

in ongoing conversation with the world framed as "my land".

- **animal husbandry**, again practiced intensively or over larger domains -- in which features of the environment are framed by the individual through characteristics and dynamics of animals, whether cattle, pigs, chickens, or the like. The focus differs of course between intensive farming and that associated with large ranches. Common appreciation of the quality of "free-ranging" is then usefully reminiscent of what is appreciated in "free-ranging conversations" in contrast with those which are tightly managed. Especially interesting is the deep quality of the bond which may be associated with particular animals.
- **fishing**, may be similarly recognized as a frame though which engagement with the world is articulated -- whether in the case of the lone fisherman on the bank of a river, or on the high seas. As conversations with the world, these both contrast with the conversation implied by the process of [fish farming](#).
- **hunting**, is familiar as a behaviour anchored in the human psyche over millennia. For the individual the pattern continues to be evident in "hunting" for a spouse, or a job, or some other opportunity. This may notably involve identifying the vulnerable of one's world. The process of "moving in for the kill" is well recognized as the final phase of some forms of conversation -- most notably negotiations with respect to selling. Such conversations evoke the respectful reflections regarding the "victims" to which some indigenous cultures have been especially attentive. The contrast is evident in the miss-selling mode of conversation so characteristic of financial institutions -- recently cultivated to a degree which has triggered a global financial crisis (presaging an environmental crisis consequent on a similar mindset).
- **mining**, involves processes dating back over centuries, most readily evident for the individual in current mining for precious stones, gold, or [coltan](#). Mining claims, whether official or informal, typically imply a personal stake of considerable psychological significance. As a metaphor of relevance to a knowledge-based society, data mining could potentially acquire corresponding significance, especially when restrictive access is specially authorized. How might individuals come to develop their relationship to the work through mining their knowledge world for valuable "precious stones" and "gold"? "Mining" as "making mine"?

The above examples all suggest the possibility of ways of engaging with nature -- conversing with nature -- otherwise understood. As explored separately, they point to the possibility of "en-joying oneself" (*En-joying the World through En-joying Oneself: eliciting the potential of globalization through cognitive radicalization*, 2011). This reframes the above-mentioned approach advocated by James Lovelock (*The Vanishing Face of Gaia: a final warning: Enjoy It While You Can*, 2009).

The sense of conversing with "oneself" can be understood even more radically -- in the light of the argument of various authors ([Gregory Bateson](#), *Mind and Nature: a necessary unity*, 1979; [Henryk Skolimowski](#), *Participatory Mind: a new theory of knowledge and of the universe*, 1994). Individuals are in fact free to "be the universe", notably by cognitively embodying the far reaching speculations by cosmologists, as tabulated above (cf. *Being the Universe: a Metaphoric Frontier*, 1999). It is worth checking the credentials, track record and motivation of those who reject this possibility. As teasingly remarked by [Kenneth Boulding](#) (*Ecodynamics; a new theory of societal evolution*, 1978):

Our consciousness of the unity of self in the middle of a vast complexity of images or material structures is at least a suitable metaphor for the unity of a group, organization, department, discipline, or science. If personification is only a metaphor, let us not despise metaphors -- we might be one ourselves. (p. 345).

Conversation, confidence-building and transformative development

In response to the global financial crisis, the need for confidence-building is widely discussed as fundamental to the recovery process. It has been presented as a significant factor in relation to the process of nation building in Afghanistan. **The above argument suggests an even more fundamental significance to the process of transformative conversation -- effectively a necessary prelude to confidence-building.** No conversation, no confidence-building.

In the current global context presumptuous allusions to "universe" are made -- beyond its misappropriation by "university". This is most evident in "universal declarations" -- as with the *Universal Declaration of Human Rights*. It has become very apparent that "conversation" within that misframed universe is extremely problematic -- if only as illustrated at the time of writing by the widespread riots regarding an [anti-Islamic film](#). In the absence of understanding of a "multi-verse" or a "meta-verse", it might be asked whether the "universe"-- as misconceived -- is too diverse to converse.

The implications of the prefix "con", and the use of various prefixes in relation to "verse", calls for further exploration of the implications for "confidence", as previously discussed (*Primary Global Reserve Currency: the Con? Cognitive implications of a prefix for sustainable confidality*, 2011). The argument is best highlighted by implicit assumptions regarding conformity within any universe of discourse -- whereby "converse" is conflated with "controversy" as being disruptive of "universe". The process of "conversing" is more fruitfully understood as introducing a counterpoint -- as well recognized in music and dance. Is this the requisite vigilant corrective to any tendency to engender a form of confidence-building indistinguishable from the Ponzi schemes characteristic of the current financial culture?

This is a challenge to "universe" too narrowly conceived. It is necessarily associated with "controversy" with the challenge then being whether "universe" can encompass such diversity. This framing of the dilemma enriches reflection -- as with the remarkable reflections of cosmologists. Whilst the dilemma is presented here in relatively abstract terms, the implications for faith-governance are only too evident at this time. Theology has yet to complexify its explorations in the light of the insights of cosmology (cf. *Mathematical*

Theology: Future Science of Confidence in Belief -- self-reflexive global reframing to enable faith-based governance, 2011).

Expressed otherwise, this is the challenge of the converse in relation to confidence. There can be no confidence without the converse -- inherent in conversation -- extending into the controversy inherent in global conversation.

It is in this sense that, for development to be sustainable, a confidence is required that is sustained by conversation, necessarily allowing for presentation of the converse -- whether or not this is perceived as controversy. The "transformative science of development" -- as in the subtitle of this document -- then requires forms of conversation through which themes are "turned over" as in the various metaphors explored, whether as in light, ploughing, music, dance or drama. The "science" -- as a mode of knowing -- is that carried by conversation in the moment (cf. *Towards Conscientific Research and Development*, 2002). Conversation is then to be recognized as the "vehicle" of development -- in the light of insights into vehicle offered by metaphor.

The challenge for the individual -- potentially alienated by the complexities of cosmology and theology -- lies in the comprehension and practice of the forms of transformation, however many these may prove to be. Conscious recognition of these transformations -- through familiarity with them in music and games -- could offer indicators of richer forms of conversation by which people could feel empowered.

The point could be said to have been partially argued by Douglas Hofstadter through the musical forms of Bach (such as canons and fugues), which he uses to illustrate a set of patterns in the 20 dialogues of his pioneering study (*Gödel, Escher, Bach: an Eternal Golden Braid*, 1979) regarding self-reflexive cognitive organization as "strange loops", developed in a subsequent study (*I Am a Strange Loop*, 2007). The challenge for governance and development has been explored separately (*Sustaining a Community of Strange Loops: comprehension and engagement through aesthetic ring transformation*, 2010).

It is curious that education now focuses on literacy and numeracy as the primary enabler of development -- skills that may be even less deliverable in a chaotic future. Strangely there is no sense in which people learn any "pattern of transformations" capable of engendering and sustaining development. In educational terms this may be exemplified by the current focus on teaching the [multiplication table](#) or its [Chinese equivalent](#). The question is rather whether **a pattern of transformations is indeed a vital minimum of greater priority than conventional understandings of numeracy and literacy** -- offering greater capacity to empower with less investment, given how the pattern may be recognized in games, music and drama. Is this the skill speculatively anticipated by "grokking" (*Authentic Grokking: Emergence of Homo conjugens*, 2003) ? Would such a pattern provide connectivity between the cognitive modalities of games, music, drama, and the like -- a [Rosetta Stone](#) of transformation possibilities vital to development?

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