



# laetus in praesens

Alternative view of segmented documents via Kairos

16th October 2010 | Draft

## Re-Emergence of the Language of the Birds through Twitter?

### Harmonising the configuration of pattern-breaking interjections and expletives

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Twitter, with over 100 million users worldwide, has surpassed 10 billion tweets, with some 65 million tweets posted each day

## Introduction

The shift into a potentially more basic, affect-defined communication mode calls for understanding of the repertoire of the briefest expressions to which people have access in responding to patterns in which they have little say -- being "in-formed" but with little capacity to "out-form". Such "in-formation" is effectively designed to evoke a very limited range of emotive responses. These readily take the form of pattern-breaking or pattern-affirming interjections -- increasingly by people who have little time or inclination for more. There is effectively a radicalization of language in response to the urgencies of system governance.

The question is then what is the spectrum of these emotional effects, if such can be determined as offering an "instrument" (in the musical sense) for breaking conventional patterns and enabling fruitful engagement. Any such repertoire is liable to include distinct emotional responses, notably associated with jokes, drama and threat -- whose evocation is typically sought by those able to "play an audience". Recourse to interjection is understood here as effective recognition of inadequacy in transcending dysfunctional patterns -- typically an expression of extreme frustration in the face of tedious repetitive argument -- contrasting with interjections affirming a current pattern in "cheerleader" style.

In what follows the associated set of communication concerns is contrasted with the quest for a language adequate to governance, as notably recognized by [Umberto Eco](#) in exploring an appropriate language for "The Making of Europe" (*The Search for the Perfect Language*, 1993). He summarizes the insights of philosophers, theologians, mystics and others for at least two millennia about the idea that there once existed a language, notably a "language of the birds", which perfectly and unambiguously expressed the essence of all possible things and concepts. He explores the history of that idea and of its profound influence on European thought, culture, and history.

The question here is whether global use of Twitter -- exemplifying many of the current communication concerns -- can be understood as enabling the emergence into practice of a form of that mythical [Language of the Birds](#), common to the memory of many cultures. These include Islam, Hinduism, Judaism, Christianity and shamanism, as indicated by Philip Coppens (*Tweet Tweet: the language of birds*). Despite that title however, no reference is made to Twitter, whose potential relationship to any "language of the birds" does not seem to have been considered by others.

Global governance is faced with escalating costs of interpretation and translation -- having abandoned the possible use of an "international" language such as Esperanto. Ironically however, international institutions are making increasing use of Twitter in informal communications and public relations. Twitter has already superceded the greatest aspirations of the United Nations as a vehicle for

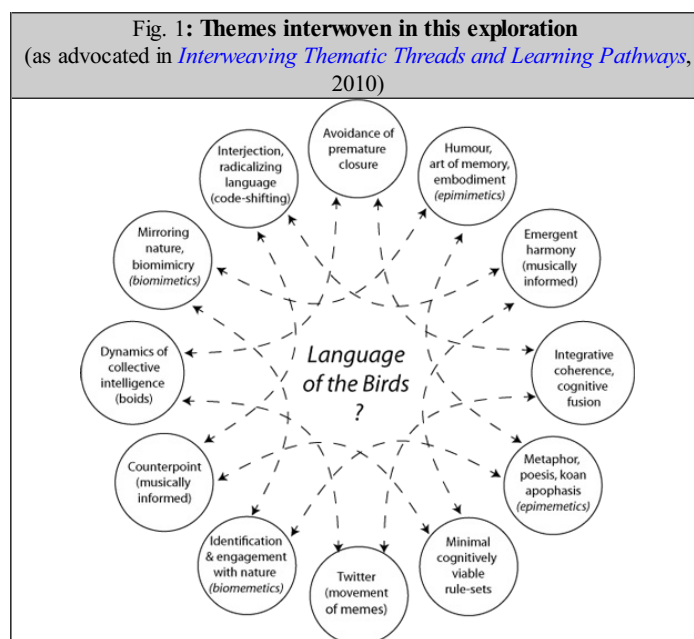
dynamic, interactive, unmediated communication amongst "we the peoples" --- with the UN remaining incapable of imagining anything better.

What might be the nature of a language, possibly a meta-language, honoured equally by many cultures -- typically in conflict -- and therefore appropriate to more effective global governance? How might it be elicited from cultural memory, as advocated by Susantha Goonatilake (*Toward a Global Science: mining civilizational knowledge*, 1999)? To what extent can the requisite harmony (enhanced with counterpoint) be enabled by composition within formal frameworks characteristic of the most fundamental patterns of East and West (*Enhancing the Quality of Knowing through Integration of East-West metaphors*, 2000)?

If 3 rules suffice to simulate the swarm intelligence of bird flocking, what is the minimum size of the rule-set appropriate to sustainable global governance exhibiting "collective intelligence"? To what extent is a set of interjections a comprehensible indication of the elements of that rule-set -- as code for the necessary "corrective" guidance they each imply? Given the striking elegance of some animal swarming movement, what degrees of elegant intelligence might be associated with a rule-set of very limited size governing the movement of memes within a global knowledge society?

Some caution is required in any deprecation of Twitter in a period when global governance might well be caricatured as "twitter" with a view to "tweaking" -- twittering "while Rome burns" in the style of Nero. However a challenge for the individual is to transcend personal "twitter" in reframing a global response to the future.

*The following exploration is dedicated to Johan Galtung on the occasion of his 80th birthday.  
He originally instigated the focus on Forms of Presentation  
through the Goals, Processes and Indicators of Development project (1978-82)  
of the United Nations University.*



## Communication concerns

This tentative exploration arises from the confluence of a set of related concerns, namely that:

- **competition for attention** (even measured in seconds) is increasingly matched by the extent of **distraction** and lack of capacity to focus, possibly taking pathological forms
- **brevity** is increasingly appreciated in contrast to articulated communication, whether the mode is audio-visual, sound-bites, SMS, or in the form of tweets -- again often such as to evoke brief expressions. This is the argument made in some detail by [Nicholas Carr](#) (*The Shallows: what the internet is doing to our brains*, 2010) -- ironically the development of a shorter variant (*Is Google Making Us Stupid?: what the internet is doing to our brains*, *The Atlantic Monthly*, July/August 2008)
- the response to contemporary politics and world affairs, felt to be meaningful under the circumstances, now increasingly takes the form of **brief expressions**, variously termed **interjections, exclamations, ejaculations, expletives or invective**. Such responses are typically used when any appropriate reaction is held to be "beyond words" -- and thereby acknowledging a "netherworld" of which many are obliged to be aware.
- the **content of e-mails and web pages**, to which people are exposed in ever greater quantity, is increasingly such that the response sought (or evoked) is best described by emotions typically distinguished by such brief expressions. There is a sense in which "e-mail" can be appropriately interpreted as "effect-mail" in terms of either its intention ("shock and awe", etc) or what it evokes (disgust, pity, amusement, etc)
- the extent to which a variety of "others" advocate strongly what "**should**" be done, what "**ought**" to be done and what "**could**" be

done -- to which little can be said, it being especially problematic when the communication takes the form of "**appeals**" understood to be "**targetted**" with the intention of achieving an "**impact**" (*Mutual targeting in a democratic process*, 1998)

- the capacity (or inclination) for "rational" assessment of foreseen crises (or articulated response) is increasingly marked by **incredulity or indifference** -- emphasized by pattern-breaking interjections (*Remedial Capacity Indicators versus Performance Indicators*, 1981). A corresponding set of pattern-affirming interjections (cheerleading) may be evident in unthinking support of "business as usual". A study by the WWF Strategies for Change Project (*Meeting Environmental Challenges: the role of human identity*, 2009) notes that progressives have mistakenly held the belief that people make rational decisions by assessing facts presented to them, when in fact psychology shows that people only accept information that confirms their identity and values, rejecting information that conflicts with them.
- the limited recognition of the variety of "pre-logical" biases, typically culturally determined, conditioning any response to information received (*Systems of Categories Distinguishing Cultural Biases*, 1993). These are consequently liable to trigger automatic responses, often in the form of interjections.
- **evaluation of communication** content is increasingly undertaken in terms of either a binary triage ("delete" vs "read", "like" vs "don't like", "affirm" vs. "deny", etc), or quantitative rankings (1 to 5 stars, etc), precluding the possibility of recognizing more complex patterns -- especially when the intention is primarily to "in-form" rather than to elicit "out-formation"
- the extent to which such expressions may be merely understood as **phatic communication**, important to building and sustaining community. Examples include study of Japanese *aizuchi* and the role of such communications in Twitter (Kevin Makice, *Phatics and the Design of Community*, 2009)
- the increase in **functional illiteracy** consequent on conventional education, with the implication that people are shifting into dependency on other modes of communication, possibly relying on a relatively limited set of insights, even heralding the emergence of a **postliterate society**
- the **channels of response**, if such is desired, are increasingly problematic as modes of effective communication, designed as they frequently are to claim effectiveness whilst suppressing challenging feedback -- especially when unsolicited communications are filtered out as spam
- in the absence of any such response, the degree of silence on the part of a "**silent majority**", together with the extent of classified information, raises concerns about what remains "unsaid" (*Global Strategic Implications of the Unsaid*, 2003). Silence may, on the other hand, be considered an "interjection" in its own right -- a significant pause in a discourse.
- inability to process and reframe communications from **conflicting perspectives**, other than by applying binary methods of triage -- with every effort made to suppress the voice of dissent, thereby forced into every cruder forms of interjection (*Using Disagreements for Superordinate Frame Configuration*, 1992)
- official statements, appeals and denunciations in response to problematic situations are increasingly recognized as **void of significance** and typically of only token consequence

It is in this context that **pattern-breaking interjection acquires particular significance -- the challenge of "not-A" to forceful, authoritative presentation of "A"**. This challenge is readily understood as exemplifying "negativity", necessarily held to be problematic irrespective of arguments to the contrary (*Being Positive and Avoiding Negativity: management challenge of positive vs negative*, 2005; Barbara Ehrenreich, *Smile Or Die: how positive thinking fooled America and the world*, 2009). Any such challenge may be highly politicized, for example as "**un-American**" or "**anti-semitic**", as previously discussed (*Guidelines for Critical Dialogue between Worldviews*, 2006). Also of concern is the extent to which the confluence of the above dynamics is engendering some form of memetic singularity (*Emerging Memetic Singularity in the Global Knowledge Society*, 2009).

Such concerns raise the question as to whether people are increasingly falling back on a constrained mode of interactive responses. Rather than a regression, this might be fruitfully seen as highlighting a fundamental set of communication modes which merits attention in the quest for richer modes of comprehension (*Hyperaction through Hypercomprehension and Hyperdrive: necessary complement to hypertext proliferation in hypersociety*, 2006). In the following discussion, the limited set is compared to the "rules" governing (boid) simulation of bird flocking and, more generally, the swarming behaviour characteristic of **swarm intelligence** in animals.

**Is human collective intelligence to be understood as emerging through a slightly richer set of rules governing "flocking behaviour" -- via Twitter, for example?** As queried above, if only 3 rules suffice to simulate the swarm intelligence of bird flocking, what is the size of the rule-set appropriate to sustainable global governance exhibiting "collective intelligence"? How is this to be distinguished from the application of binary logic? To what extent is a set of interjections a comprehensible indication of the elements of that rule-set -- as code for the necessary "corrective" guidance they each imply? Given the striking elegance of some animal swarming movement, what degrees of elegant intelligence might be associated with a rule-set of very limited size governing the movement of memes in global knowledge society?

## **Instrumentalization of language as a "death of language"**

The concerns cited above are indicative of what might be understood as the death of language, conventionally understood, as a primary

mode of communication and a vehicle for expression of identity. As the language of "imperial" ambitions and "universal" value frameworks it is effectively dead or in a terminal condition. The process might be compared to the decline of Latin as the mode of expression of the Roman Empire, academia, and of the Catholic Church. The "instrumentalization of language" has been variously criticized.

The **increasing emptiness of conventional discourse** -- and its tedious, repetitive nature -- are the most obvious symptoms of this. This is exacerbated by its association with abuse of confidence (*Abuse of Faith in Governance*, 2009). The mode of communication through which people "live" has effectively "moved on", recalling the much-quoted verse of Omar Khayyám.

*The Moving Finger writes; and, having writ,  
Moves on: nor all thy Piety nor Wit  
Shall lure it back to cancel half a Line,  
Nor all thy Tears wash out a Word of it. (Rubaiyat)*

Assumptions regarding the primacy of conventional language have become a trap. Despite appearances, **such language is not what "real people" use to articulate their lives -- or through which their living "happens" -- in the circumstances in which they find themselves.** Are "real people" to be distinguished from "virtual people" -- conceptual avatars?

Whilst linguists express fears of language deterioration, from a conventional perspective, as a consequence of electronic communication, reports note that some recognize the creative possibilities of the medium (Kristen Philipkoski, *The Web Not the Death of Language*, *Wired*, 22 February 2005; Rebecca Straw, *The Internet: Communication Corruptor or Language Liberator?* *JYI*, 20, 4, October 2010). Others argue that the trend is indeed destroying language (Joseph D. Lien, *The Death of Language by Mobile Phone*, *Opera Portal*, 3, August 2010). The phenomenon is developing simultaneously with the **disappearances of many languages** -- a matter of frequently expressed concern (David Crystal, *The Death of Language*, *Prospect*, November 1999)

The question is **how best to distinguish the mode of communication through which people "live" from that through which it is conventionally assumed that they do.** A helpful illustration is provided by the "dead" communication mode characteristic of instruction manuals for apparatus and software -- readily used for other domains of communication (legal contracts, etc). This is in contrast with the primary "intuitive" mode with which people, and increasingly the young, engage with such devices -- with recourse to manuals only as a secondary mode, preferably avoided. As a secondary communication modality it is increasingly marginalized wherever feasible.

In this light, the secondary language modality might be better understood as having been "extruded" or "excreted", as with the construction of calcified shells by molluscs -- perhaps with suitable nacreous decoration. The primary modality may make use of the secondary, but its cognitive centre of gravity is elsewhere and not defined by the excreted form. There may of course be confusion between the two modes, as when people associate their identity intimately with an automobile, home or clothing.

Of particular interest in this process of instrumentalization is the manner in which conventional language, assumed to be a carrier of value, is systematically exploited by those seeking to manipulate opinions with which values and identity have been associated. This is most evident in the case of advertising but is also evident in the case of political and religious discourse. The efforts to do so are rapidly **eroding the significance of language and the unquestioning confidence people are assumed to have in it.** The problematic association of valued friendship with the plethora of so-called "friends", acquired (often automatically) on social networking sites, offers another example.

The process is further exacerbated by consumption patterns in a throw-away society in which the objects so discarded were themselves acquired through the value attributed to them through language -- thereby devalued in turn. The process is ironically exemplified by the trademarking of iconic carriers of values associated with cultural heritage -- icons honoured, because of such value, in the logos of some international institutions. Most evident is the case of the trademarking of items of clothing with the names of gods of antiquity (*Religious "Plastic Turkeys" -- Hermes vs the Hijab*, 2003).

The relationship between these contrasting languages can be usefully seen in the light of the process identified in **sociolinguistics** as **code-switching**, namely the concurrent use of more than one language, or language variety, in conversation. Thus, code-switching is the syntactically and phonologically appropriate use of more than one linguistic variety. This may also be associated with **style-shifting**, namely the alternation between styles of speech included in a linguistic repertoire of an individual speaker. Interjection, whether pattern breaking or pattern-affirming, may be understood from this perspective.

*And what the dead had no speech for, when living,  
They can tell you, being dead: the communication  
Of the dead is tongued with fire beyond the language of the living.  
(T. S. Eliot, *Little Gidding*, 1942)*

## Meta-narrative as "gateless gate" to the "Language of the Birds"

As is to be expected, there are various studies of interjection. Surprisingly, one of the most extensive is that of their use during the Roman Empire (Gabriela Sauciuc, *Types of interjection (interjection as viewed by Latin Grammarians)*, 2004). There does not appear to be a typology in the sense implied by the repertoire mentioned above. It is appropriate to note that "ejaculation", previously synonymous with interjection, is now primarily used with its sexual connotations. However, it should not be forgotten the extent to which **interjections have sexual and scatological connotations in order to convey the pattern-breaking meaning evoked by circumstances.** Curiously appropriately, it is the integrative ("holistic") approaches that are most evocative of sexual interjection in the larger world. To what extent are the set of interjections then indicative of the repertoire of systemic corrective requirements?

**Prefixes:** The status of "interjection" is of interest as a form of commentary or meta-narrative with respect to conventional discourse on

more substantive matters -- as a response to the framing constituted, often unquestioningly, by the following set of terms:

- object, objection, and objecting
- subject, subjection, and subjecting
- dejection and abjection
- project, projection, and projecting
- reject, rejections, and rejecting
- eject, ejection, and ejecting
- conjecture
- inject, injection (and interjection), and injecting

The mode of "inter-jection", "ex-clamation" or "ex-pletive" is in this sense "outside-the-box", namely discourse that either:

- refuses to "buy into the box" and effectively challenges it -- a **pattern-breaking form**
- affirms the pattern of the box, but from an other, typically emotional, perspective -- thus a **pattern-affirming form**

Interjection in particular recalls **the continuing challenge of the use of prefixes such as inter-, multi-, cross-, and trans-** in relation to disciplines (transdisciplinarity, etc), faith (interfaith, etc), culture (multicultural, etc). This is a theme explored by [Erich Jantsch](#) (*Towards interdisciplinarity and transdisciplinarity in education and innovation*, 1972) as previously discussed (*Conceptual Gaps And Confused Distinctions: possible ambiguities in the translation of interrelated concepts between sectors, jargons or languages*, 1974). The more general implications of such prefixes in framing discourse were considered previously (*New Paradigms via a Renewed Set of Prefixes: dependence of international policy-making on an array of operational terms*, 2003). **The focus here is however on the nature of the repertoire of interjections -- with the purpose of clarifying how together they functions as a vehicle for global sense-making for the individual.**

This contrasts with initiatives such as those of the [Global Sensemaking Network](#). The contrast is perhaps consonant with the rationale for the study of head nodding, especially in meetings of strategic significance -- even at the highest levels of governance (Isabella Poggi, et. al., *Types of Nods: the polysemy of a social signal*, 2010). However it should not be forgotten that the relative value of verbal discourse in some cultures -- in comparison with interjection, gesture, and the like -- may be less than that assumed in conventional international arenas (cf. Sotaro Kitaa, et al., *Nodding, Aizuchi, and Final Particles in Japanese Conversation*, *Journal of Pragmatics*, 2007).

**Unparliamentary language:** Given the effective failure of the integrative approaches (associated with inter-disciplinarity, etc), interjection might also be understood as their "[shadow](#)" of unfulfilled potential -- in the psychological sense. This is interesting in that, in the Westminster parliamentary tradition, it is members of the "Shadow Cabinet" that are both source and focus for pattern-breaking interjections in relation to those speaking on behalf of the government.

It is noteworthy that, whatever the mode, **interjections are typically edited out of official records of debate** -- as [unparliamentary language](#) relative to parliamentary language (*lingua legislata*). This would tend to confirm their role in pattern-breaking.

Unfortunately *Hansard* (as the generic name for that reporting tradition) is therefore an incomplete guide to interjections, recording only those that draw a reaction from the member speaking, and thus held to be important to the overall sense. For example, interjection from a seated member generally is only included if the member who is speaking at the time refers to it. Any interruption to debate, whether from the member being shouted down or the physical invasion of the chamber, will be marked with the word "(Interruption)". Expletives are necessarily deleted. Interjections giving rise to a call for order by the Speaker are reported only as "Interjection." Other interjections are reported as spoken if they are clearly audible and if they are responded to in some way by the member who has the floor.

It might even be said that **democracy, as currently practiced, is a mode of organization based on the suppression (or even violent repression) of interjections** -- which may then effectively take the form of the crudest expletives and associated invective. In a period where various forms of cyber-censorship are envisaged, appropriately issues regarding the "shadow" of Twitter itself have been raised in a dialogue between Twitter co-founder Jack Dorsey and the Jungian analyst Doug Tompkins (*C. G. Jung, Twitter and its Shadow*, 3 November 2009).

**Underlying cognitive framework:** The question is **how does an interjection, especially of non-lexical form, highlight the existence of a more fundamental cognitive framework** with which people habitually have an only partially explored degree of contact -- although possibly embedded within that context in unsuspected ways. The associated cognitive modalities may well constitute a more "primitive" way of knowing. However the latter may also be intimately related to **a potentially more subtle way of knowing**. Given the primary focus of the lexical form on sight, and its exploitation in the "vision" metaphors typical of "in-the-box" governance, an interjection may be associated to some degree with other senses consistent with polysensorial modes of cognition (*Cyclopean Vision vs Poly-sensual Engagement*, 2006; *Strategic Challenge of Polysensorial Knowledge bringing the "elephant" into "focus"*, 2008).

With respect to its "primitive" nature, such "re-cognition" may recall the cognitive origins of human language, necessarily "integrative" and "global" as a mode of knowing -- being prior to lexical articulation (cf [Paul Feyerabend](#), *Conquest of Abundance: a tale of abstraction versus the richness of being*, 1999). In this sense it may have affinities with the "language" of animals and indeed it may typically be in that mode that many people currently "communicate" with animals, infants or the very severely handicapped. The case of working communication with sheep dogs is of particular interest. It may be in such a constrained mode that extraterrestrials will communicate with humans (*Communicating with Aliens: the psychological dimension of dialogue*, 2000) .

**Integrative subtlety:** But there is also the interesting possibility that this modality offers clues to a much more subtle language, as recalled in the many mythical and mystical references to the *Language of the Birds* -- whether a "perfect" language or the "divine" language of the gods and angels. A blogger, Conrad H. Roth (*Varieties of Unreligious Experience: for the birds*, 19 August 2007) bluntly

states:

Now, what is this 'language of the birds' all about? There is, of course, a [Wiki article](#) on it, though the page is rather haphazard and unreliable. Similarly, the internet is full of newage [mama-djambo](#) on the subject, much of it in French. We can do better.

Roth then notes that the trope is found throughout classical literature, associated often but not always with the great Roman institution of *augury*, divination by birds. He helpfully quotes numerous examples, concluding:

To comprehend the language of birds is to transcend the realm of *culture* for that of *nature*. The language of culture uses clumsy, confusable words; the language of nature moves with the rhythms of the world -- it is beyond words, and more like music -- birdsong. It is also, like everything natural, an expression of divine will; thus augury and prophecy. This yearning for the pre-cultural and the pre-verbal represents a sort of Rousseauian streak in the classical world.

In his references to the mythical tradition of that language by Islam, Hinduism and Judaism, René Guénon indicates (*The Language of Birds, Studies in Comparative Religion*, 1969):

The expression is clearly a symbolic one since the very importance which is attached to the knowledge of the language -- it is considered to be the prerogative of a high initiation -- precludes a literal interpretation...

This brings us back directly to what was said at the outset about "the language of the birds", which can also be called "angelic language", and which is symbolized in the human world by rhythmic language, for the science of rhythm, which has many applications, is in fact ultimately the basis of all the means which can be brought into action in order to enter into communication with the higher states of being. into communication with the higher states of being. This is why it is said in an Islamic tradition that Adam, whilst in the Earthly Paradise, spoke in verse, that is, in rhythmic language. It is also why the Sacred Books are written in rhythmic language, which clearly makes them some-thing altogether different from the mere "poems" (in the purely profane sense) which the antitraditional prejudice of the "critics" would have them to be...

The nature and structure of birdsong therefore offers a fruitful metaphor through which to explore this possibility, especially since it evokes the **cognitive engagement with nature** promoted by various authors associated with [deep ecology](#), [ecophilosophy](#) and [ecopsychology](#) (David Abram, *The Spell of the Sensuous: perception and language in a more-than-human world*, 1997; Henryk Skolimowski, *The Participatory Mind: a new theory of knowledge and of the universe*, 1995; Theodore Roszak, et al., *Ecopsychology: restoring the Earth, healing the mind*, 1995; Theodore Roszak, *The Voice of the Earth: an exploration of ecopsychology*, 2001; Thomas Moore, *The Re-enchantment of Everyday Life*, 1997).

The question is the cognitive structure required for that engagement as intimated by Gregory Bateson (*Mind and Nature: a necessary unity*, 1979; *Angels Fear: towards an epistemology of the sacred*, 1988). It is intriguing that the *Language of the Birds* is also known as the "Green Language" because of the purported ability, through it, to communicate with animals, notably as imputed to shamans. This is perhaps implied by films such as *Dances with Wolves* (1990) or *The Horse Whisperer* (1998).

For David Abram (*The Spell of the Sensuous: perception and language in a more-than-human world*, 1997):

In such indigenous cultures the solidarity between language and the animal landscape is palpable and evident. According to Ogotemmel, an elder of the Dogon tribe of Mali, spoken language was originally a swirling garment of vapour and breath worn by the encompassing earth itself. Later this undulation garment was stolen by the jackal, an animal whose movement, ever since, has disclosed the prophetic speech of the world to seers and diviners. Many tribes, like the Swampy Cree of Manitoba, hold that they were given spoken language by the animals. For the Inuit, as for numerous other peoples, humans and animals all originally spoke the same language.

The incidence and implications of such modes of knowing are helpfully presented in a compilation for [UNEP](#) edited by Darrell A. Posey (*Cultural and Spiritual Values of Biodiversity: a complementary contribution to Global Biodiversity Assessment*, 1999).

**Pre/Trans fallacy:** In considering the insights to be drawn from such modes, careful attention is appropriate to the traps of the [pre/trans fallacy](#) articulated by Ken Wilber (*Sex, Ecology and Spirituality*, 1995). This may either take the form of considering, as with Freud, that mystical realization is a regression to infantile oceanic states. Alternatively it may take the form of considering, as with Jung, that pre-rational myths reflect divine realizations. Pre-rational states may be misidentified as post-rational states. A fruitful reframing might be articulated through the classic verse of T. S. Eliot:

*We shall not cease from exploration  
And the end of all our exploring  
Will be to arrive where we started  
And know it for the first time.*  
(Little Gidding, 1942)

## Indicative possibilities for eliciting a Language of the Birds

Clues may therefore be found in the following:

- **Emoticons and smileys:** recognition of [emoticons](#), namely a textual expression (by e-mail) representing the face of a writer's mood or facial expression. These are typically used to signal a responder of the tenor or temper of a statement, and can change and improve interpretation of plain text. [Smileys](#) are understood as a form of emoticon -- a means of giving visual representation to interjections and emotional responses, often replaced by combinations of punctuation. *Wikipedia* offers a [List of emoticons](#) as commonly used -- distinguishing between [Western](#), [Eastern \(Asian\)](#), and [2channel](#) (Japanese-style) emoticons. These may be replaced by [graphical forms](#), like smileys -- often introduced automatically through the autocorrect feature. Clearly such "vocabularies" suggest their representation within a pattern or configuration of possibilities. There is an irony in the modern emergence of such ideographs -- whose role might be compared to that of [Egyptian hieroglyphs](#). In Egyptian Arabic, hieroglyphic writing is called "the alphabet of the birds", whilst in Ancient Egyptian, that form of writing was termed *medu-netjer* ("words of the gods" or "divine language") (cf. Yves Emmanuel Monin, *Hiéroglyphes français et Langue des Oiseaux*, 1982). Could its role have been primarily "evocative" rather than "descriptive" as assumed?
- **Transaction analysis:** possibly to be considered as a subset of interjections, greetings and parting phrases: initiating and terminating an interaction, are indicative of a wider set of minimal exchanges through which community is sustained, potentially a minimalistic language for community membership. *Wikipedia*, for example, offers a [List of greetings](#) and [Parting phrases](#). These can be understood as part of a larger set of codes of etiquette indicative of bonding language and susceptible of categorization as a minimal set of [rules of etiquette](#), of which the internet variant is [netiquette](#) -- potentially of greater relevance to this argument. More generally, useful clues could be derived from the codification characteristic of [transaction analysis](#), especially regarding the ways in which a minimal set of elements can be combined, notably over time.
- **Primitive languages:** analyses of the earliest and most primitive languages used by humanity, exemplified by the background research on which is based the latest "caveman" film *Ao, the last Neanderthal* (2010). Speculation on the nature of the [Neanderthal language](#) is a matter of continuing debate. For example, the Neanderthals may have had an elaborate [proto-linguistic](#) system of communication that was more musical than modern human language, and that pre-dated the separation of language and music into two separate modes of cognition according to [Steven Mithen](#) (*The Singing Neanderthals: the origins of music, language, mind, and body*, 2006). He called this hypothetical lingual system 'hmmmmm' (holistic, manipulative, multi-modal, musical and mimetic). Mithen suggests the appearance of such a compositional language would have had a profound cognitive impact, leading to the capacity for metaphor that underlies art, science and religion.
- **Click languages:** potential relevance of aboriginal and other "[click languages](#)", recognizing that English (as with many other languages) may use clicks as a form of interjection. The relatively limited range of clicks has resulted in indicative typologies.
- **Animal communication:** research into the characteristic sets of sounds involved in [animal communication](#) (zoosemantics) within their groups, amongst their species ([intraspecies communication](#)), or between species ([interspecies communication](#)) -- of which birdsong is a prime example. How many sounds are required for their survival? Especially interesting is research into interspecies communication (Matt Walker, *Dolphin species attempt 'common language'*, *BBC*, 30 September 2010). This is provocatively suggestive of the challenge of communication following human "speciation" by discipline and belief system -- and the kinds of emotive response (interjection) with which the communications of another such "species" is received or by which "territoriality" is meaningfully expressed. This of course has implications for any future encounter with extraterrestrials -- such "species" being "not from my planet".
- **Constrained communication:** the constraints on communication interfaces, whether understood as "[function keys](#)" or associated with "[accessibility](#)" (by those handicapped in any way), serve to highlight the issue of how many functions are required and how many can be tolerated under certain circumstances. The challenges faced by [Stephen Hawking](#) offer a widely recognized example, as with those even more constrained in their communication capacity (terminally ill, babies, "alienated teenagers"). Especially interesting are the potential cognitive implications where communication devices are understood metaphorically (*Computer Use as Philosophy in Operation: metaphors of the inner game*, 2003). A different approach would be to identify the very limited communication set required for split second decisions in [aerobatic flying teams](#) (as with the [Red Arrows](#)) to maintain formation at high speed during manoeuvres -- by analogy to animal swarming. More generally this argument applies to the limited instruction set for any team operating under stress, most notably in life-or-death combat situations.
- **Comic strips:** consideration of the variety of emotionally-charged interjections used by comic books.
- **Cognitive biases:** The various efforts to distinguish limited sets of cultural or pre-logical biases are suggestive that such distinctions imply a variety of modalities to which access may be appropriate under distinct circumstances, for survival and thrival (*Systems of Categories Distinguishing Cultural Biases*, 1993).
- **Artificial languages:** considerations relevant to the many experiments in [artificial language](#) construction, namely a language whose phonology, grammar, and/or vocabulary have been consciously devised instead of having evolved naturally. Of particular interest are [collaborative constructed languages](#), with which forms used in slang and on the Internet might be included (but are seemingly not). Clearly this category blurs into that of [computer programming languages](#). Also of relevance are [engineered languages](#) devised to test or prove some hypotheses about how languages work or might work.
- **Philosophical languages:** a particular form of artificial language of potential relevance is [philosophical language](#), namely those constructed from first principles, like a logical language, possibly with a strong claim to absolute perfection or transcendent truth

rather than satisfaction of pragmatic goals. Especially suggestive are the vocabularies of **oligosynthetic languages** composed of compound words coined from a small (theoretically minimal) set of morphemes.

- The minimal (oligoisolating language) **Toki Pona**, designed by **Sonja Elen Kisa**, focuses on simple concepts and elements that are relatively universal among cultures in order to express maximal meaning with minimal complexity. The language, inspired by Taoist philosophy, has 14 phonemes and a vocabulary of some 120 **root words**. The root vocabulary is designed around the principles of living a simple life without the complications of modern civilization.
- Of related interest is **Zaum**, the linguistic experiments in **sound symbolism** and **artistic language creation** of Russian Futurist poets such as **Velimir Khlebnikov** and **Aleksei Kruchenykh**. Some of Khlebnikov's work has been explicitly related to the **Language of the Birds**. (Jennifer Wilson, *Transrational Language: a revolution in semiotics -- Khlebnikov and Kruchenykh's experiments with cubo-futurism, The Birch*, Fall 2005). Zaum has been linked to the **Oulipo** initiative -- whose creative "absurdity" is of current relevance to governance (*Lipoproblems: developing a strategy omitting a key problem*, 2009).
- **Mythical languages**: hypothetical **mystical languages** understood as divine proto-languages predating and superseding human phonetic speech. Traditionally recognized variants include **Adamic language**. Such a possibility has been recognized as **angelic language**. These languages may be contrasted with the "**sacred language**", or liturgical language, in which religious scriptures are expressed, possibly with a strong non-lexical component (as with the **Twilight Language**). Of particular interest is the **Language of the Birds** traditionally postulated in various cultures as a mystical, perfect divine language -- a green language, adamic language, angelic language or a mythical or magical language used by birds to communicate with the initiated, as in Norse mythology. Celtic Druids believed that certain people were able to communicate in that language. In the account offered by Vincent Bridges (*Reading the Green Language of Light*, 2003), he notes:

Although we can point to the Green Language in works as diverse as *Midsummer Night's Dream* and *The Chymical Wedding* of Christian Rosencruz, Nostradamus' quatrains, 18th century alchemical texts and surrealist manifestos, few authors have bothered to explain it. One who did was **Fulcanelli**, the enigmatic 20th century alchemist and philosopher, in his masterpiece *The Mystery of the Cathedrals*, published in Paris in 1926. Here we have an authentic, although mysterious, voice of authority; one that was both master of the Green Language itself, and a master of the subjects usually hidden within it.

As noted by Paul Waldau, et al. (*A Communion of Subjects: animals in religion, science, and ethics*, 2006):

...Qur'anic verse (27:16) suggests it is possible for a select few to be graced with the comprehension of the language of the birds (*mantiq ut-tayr*). According to this verse, God taught the Prophet Solomon "the language of the birds.".... For Sufis, comprehending the language of the birds was not limited simply to deciphering their calls... Bird songs and melodies could also be understood as the expressions of spiritual experiences of beings at various stages of spiritual development. (p. 171)

- **Claims**: claims by various authors to have adopted techniques characteristic of a "Green Language" or a "Language of the Birds", as with a description of their elaboration and use by **Nostradamus** (David Ovason, *The Nostradamus Code*, 1997) -- extensively listed and discussed in the **Cassiopoea Blog Forum**, in conjunction with discussion of the examples of David Abram (1997). Also of relevance are claims for the angelic **Enochian language** elaborated by **John Dee**, consultant to **Queen Elizabeth I**. References are also made to the **Phonetic Cabala**, said by **Fulcanelli** to be distinct from the Hebrew Kabbalah, and of different derivation. It is basically homophonic and symphonic rather than numerical, being based on phonetic assonance and resonance to echo the **Gay Science** of the Hellenic gods spoken, in sacred Ancient Greek nomenclature. Of related relevance again is the **Ouxpo** initiative (*Ouvroir d'X Potentielle* -- an umbrella group for **Oulipo**, **Oubapo**, **Outrapo**, etc.) which playfully explores a wide variety of approaches that could be seen as in the tradition of Ovason's identification of the understanding of Nostradamus of the **Language of the Birds**.
- **Metaphor and pun**: Claims are also made that the **Language of the Birds**, as the secret language of esoteric philosophers and alchemists, was based on metaphor. For example, according to Baudouin Labrique (*La langue des oiseaux ou la langue secrète des philosophes*), it was said to be based on puns and word play, with the sounds suggesting other words both hiding their significance and offering a trace. The brain then derives significance from the conflation of these indications [see extensive *Wikipedia* entry in French: *La langues des oiseaux*]. The psychoanalyst Jacques Lacan, in particular, has shown that through such coded word play a degree of communication is enabled with the unconscious. By avoiding communication of a direct message, the unconscious first reveals the secret of the unsaid without reactivating the associated suffering and direct memory of conflict, with any damaging effects it might have.

Given its assumed association with the (secret) language of **troubadours** and **trobairitz** of the High Middle Ages, there is a particular and continuing preoccupation by French scholars with the nature of the **Language of the Birds** (cf *La Langue des Oiseaux* - web resources; Robert-Régor Mougeot, *L'Alphabet des Oiseaux*), with a more limited literature in German (*Die Sprache der Vögel*), Italian (*Linguaggio degli uccelli*), and Spanish (*Lenguaje de los Pájaros*). This association with the transformative role of music and song at that time accords with their important role in the transformation of contemporary culture.

In the current period, and with some cynicism, it is appropriate to note the widespread emergence of a form of "language of the birds" associated with security **drones** -- readily characterized as "birds". Ability to communicate with them, and presumably to foresee communication between them (as between satellites), can be said to constitute such a "language". This modality in fact reflects reference

throughout history to informants as (little) "birds", and to mythical use of birds for that purpose by magicians -- as currently celebrated in fantasy movies. However the destructive capacity of drones, enabled by such language, is now only too real. There is of course an appropriate irony to the [musical connotation of drone](#) in contrast with the harmony of the birds discussed here.

There is a further irony to be found in the common use by men of "birds" with reference to women. Feminists have successfully highlighted how inadequate is the understanding of the voice of women -- when it can be expressed -- effectively then as a "language of the birds". References are made to its secret nature, notably in harems and some tribal societies (A. M. Juster, *The Secret Language of Women*, 2003). Many have argued that, until that voice is effectively heard, the language of governance will be inadequate to the challenge of the times (*Women and the Underside of Meetings: symptoms of denial in considering strategic options*, 2009). Given the explicit concerns of tantric practice, the cognitive transformation associated with its polysemic [Twilight Language](#) is clearly relevant to any such bridging. Twitter may indeed prove to be a vehicle for that voice.

Both these "ironies" offer a contrast to the language of verbal expression through a third, namely an implied significance of touch. They both raise questions about the transformation associated with how "the other" is "touched" -- whether in the "hearts and minds" naivety of drone intervention or through the contact between man and woman. Both highlight the extent to which global society has cultivated castes of "untouchables" -- whether the governors (through their impunity), women or neglected populations. The polysensual quality of the *Language of the Birds*, notably through its rhyming harmonies, suggests an inherent capacity to "touch" and be "touched" -- to a degree evidently absent in the practice of global governance.

## Interrelating emotive interjections in response to integrative failure

An approach to the binary coding of pattern-breaking interjections and expletives is discussed in a separate [Annex](#), composed of the following sections:

- [Minimum requisite variety of distinct expressions](#)
- [Interjections as a set of emotive qualitative judgments](#)
- [Binary encoding of distinctions](#)
- [Towards an integrative coding of qualitative interjections](#)
- [Playing political "tunes" with an eight-fold pattern of distinctions](#)
- [Extension to an 8-fold array of distinction "octaves"](#)
- [Alternation between multiple patterns](#)
- [Harmonious interrelation of different modes](#)

## Epimemetics, biomimetics, epimimetics and biomemetics

**Dynamics:** Enthusiasm for genetic determinism gave rise to the success of the [Human Genome Project](#) begun in 1990 and completed in 2003. Unfortunately, and to the surprise of many, the deterministic assumptions were shown to be inadequate for explanation in terms of inherited characteristics. Additional non-genetic factors were recognized as causing the organism's genes to behave (or "express themselves") differently and have given rise to the discipline of [epigenetics](#), namely the study of dynamic factors other than changes in the underlying DNA sequence.

In the quest for a *Language of the Birds* it is therefore useful to see any harmonious spiral organization of distinctions (discussed in [Annex](#)) as indeed corresponding to a mapping of DNA. Cognitively it corresponds to "meme mapping" rather than "gene mapping" (John Paull, *Meme Maps: a tool for configuring memes in time and space*, *European Journal of Scientific Research*, 2009). But, like the conch shell, it is best understood as an instrument. The spiral map (see [Annex](#)) is then to be understood as resembling the set of keyboards of an unusual organ.

It is then in the manner in which distinctions are expressed and "played" that lies the "secret" of that language. Paull concludes with the point:

The map is not the territory. A map can inform a discourse, and facilitate an understanding of a territory, a domain of interest, and that is just because much of the forest of information is, of necessity, discarded in the process of map making so that some of the trees can be better revealed. Meme maps are commended to the reader as a ready tool for memetics and memeticists, for visualizing what has heretofore lacked a medium of imagery.

**Epimemetics:** It is in this sense that "**epimemetics**" can be fruitfully recognized as corresponding to the dynamics explored in **epigenetics**. Arguably it is potentially epimemetics that is then most closely related to the *Language of the Birds* -- with the emphasis on the interplay of memes rather than on a description of that interplay. An explanation of the performance of a troubadour -- as purported exponent of the *Language of the Birds* -- is essentially meaningless in comparison with the performance itself.

A case for epimemetics was previously made in reflection on constrained understanding of human awareness (*Beyond the Standard Model of Universal Awareness*, 2010).

According to one "definition" (in the *Xenanthropy Wiki* of new philosophy), [epimemetics](#) concerns the evolution of a representational image or concept as it is consciously considered, influenced by mental environment, applied or altered by dissemination. Epimemetics is different from memetics in that it is a phenomenon which occurs in a meme *post-origin* and before crossover with a meme of a separate origin. This can roughly be described as the development of a representational image or concept *in real time*.

One of the few approaches to epimemetics, but primarily for commercial marketing purposes, is that of Russell Wright, a search engine

optimization auditor -- co-creator of the [Theme Zoom](#) search engine marketing tool, based on a keyword reporting system and '9 different keyword types'. He promotes a [natural language](#), [neurolinguistic](#), [neuromarketing](#), memetic approach in a video sequence (*Your Epimemetic Awakening: Unmapping the Web*, 2010; *Unmapping the Web: genes, memes, temes and epimemes*, 2010).

**Engagement with the reality of nature:** In the light of the argument (noted above) for cognitive engagement with nature -- and its association with the *Language of the Birds* as being also known as the "Green Language" -- there is a suggestive relationship between:

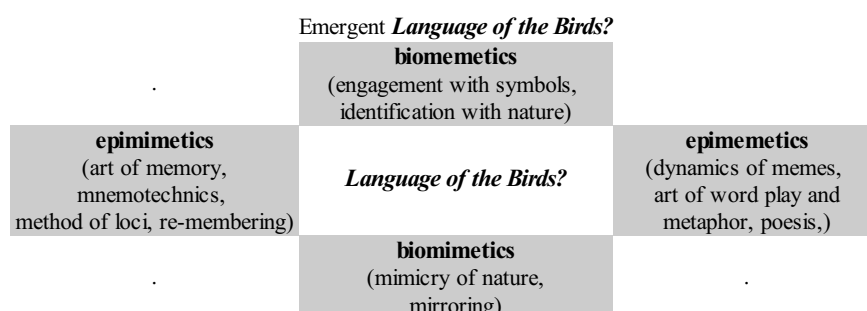
- **epimemetics** (as noted above), including the sense of harmony and elegance in "play", characteristic of the use of [word play](#) and metaphor, as purportedly associated with the *Language of the Birds*; possibly as celebrated in Taoist "crazy wisdom" and in provocative use of the Zen *koan* (cf *Enacting Transformative Integral Thinking through Playful Elegance*, 2010; *Humour and Play-Fullness: Essential integrative processes in governance, religion and transdisciplinarity*, 2005). This extends to the creative exploration of potentially significant correspondences (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007). It might also include [apophysis](#) and "unsaying" (*Being What You Want: problematic kataphatic identity vs. potential of apophatic identity?* 2008)
- **biomimetics** (or [biomimicry](#)), understood as the examination of nature, its models, systems, processes, and elements to emulate or take inspiration from it in order to solve human problems (*Enabling Governance through the Dynamics of Nature: exemplified by cognitive implication of vortices and helicoidal flow*, 2010).
- **epimimetics** (a proposed neologism), understood as a form of mirroring (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008). It is characteristic of the [art of memory](#) (mnemotechnics) and its supportive contexts ([memory palaces and theatres](#)) as documented by [Frances A. Yates](#) (*The Art of Memory*, 1966). Given the mirroring typically offered through humour, it might hold the humour imagined to be characteristic of the laughing discourse of the gods with regard to the nature of reality and their place in it.
  - Aristotle: *The gods too are fond of a joke.*
  - Albert Einstein: *Whoever undertakes to set himself up as judge in the field of truth and knowledge is shipwrecked by the laughter of the gods.*
  - Japanese proverb: *Time spent laughing is time spent with the gods.*

Hence the connotation of the laughing *Language of the Birds* as being a language mirroring that of the gods -- although whether they "interject" is another matter. There is the charming possibility that any typology of humour, or of dramatic plots, might effectively emerge through combinations of "conceptual primes" -- recalling the widely distributed tale of a prison (in Russia), where the number of a joke in a well-known repertoire was sufficient to elicit laughter (rather than its telling).

- **biomemetics** (a proposed neologism, although extant as a misspelling of biomimetics), which might be understood as a degree of identification with nature, whether as a rich set of fundamental symbols, or as variously practiced by deep ecologists and shamans, notably within Australian Aboriginal culture (A. P. Elkin, *Aboriginal Men of High Degree*, 1977). This degree of cognitive engagement (possibly via totems) is extensively documented by Darrell A. Posey (*Cultural and Spiritual Values of Biodiversity*, 1999). It may also be an interpretation of the argument regarding issues of self-reflexivity and embodiment of [George Lakoff](#) and [Mark Johnson](#) (*Philosophy In The Flesh: the embodied mind and its challenge to western thought*, 1999).

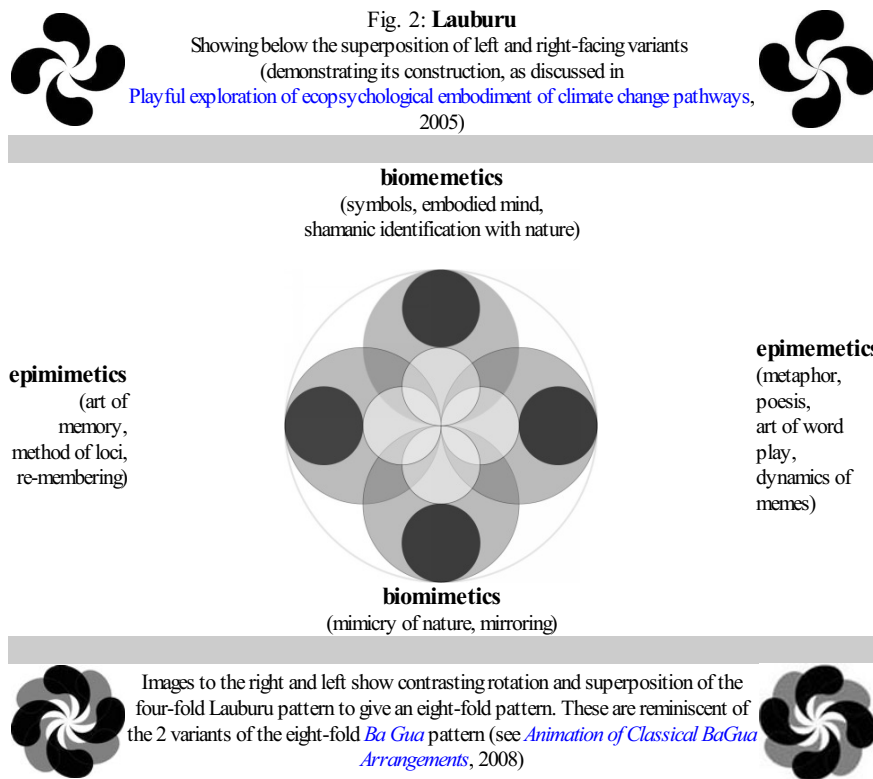
Of particular relevance are the studies of anthropologist [Jeremy Narby](#) (*The Cosmic Serpent: DNA and the origins of knowledge*, 1999; *Intelligence in Nature: an inquiry into knowledge*, 2005; *Psychotropic Mind: the world according to Ayahuasca, Iboga, and Shamanism*, 2010). He describes the methodological challenge of reconciling indigenous knowledge with conventional anthropological and microbiological approaches and understanding. The hypothesis he tests is that "shamans take their consciousness down to the molecular level and gain access to biomolecular information". He stresses the highly detailed understanding of indigenous knowledge of the structure and processes of DNA, represented visually in forms recognizable to microbiologists. Some implications are well-explored in terms of [generative grammar](#) by [Ian Watson](#) (*The Embedding*, 1975). This work could be usefully seen as related to that of [Glenn Albrecht](#) of the [School of Sustainability](#), partially summarized by Daniel B. Smith (*Is There an Ecological Unconscious? The New York Times*, 27 January 2010) and, with respect to the emerging discipline of [neuroanthropology](#), by Paul Mason (*Solastalgia, Soliphilia and the Ecopsychology of our Changing Environment, Neuroanthropology: for a greater understanding of the encultured brain and body*, 30 January 2010). Also of relevance is one Muslim understanding of the *Language of the Birds* as the deciphering of the mystical significance of bird calls.

Together these might be configured as follows to imply an emergent *Language of the Birds*:



Given the emphasis on dynamics in the focus of epimemetics (in the light of the focus of epigenetics), there is then the suggestion that

any association with biomimetics should be attentive to insights deriving from **movement** in nature -- rather than simply to **static representation** of systems. This is consistent with previous explorations (*Navigating Alternative Conceptual Realities: clues to the dynamics of enacting new paradigms through movement*, 2002; *Enabling Governance through the Dynamics of Nature*, 2010). A developed version of the above pattern might be presented as follows.



The above distinctions are necessarily exploratory and tentative. There are clearly subtle "confusions" in practice between the significance of the terms so distinguished. As a four-fold pattern of distinctions it recalls that made separately (see [Annex](#)). Its association with the quadrilemma is particularly striking in affirming any definition (A, not-A, A and not-A, neither A nor not-A) -- when each is effectively called into question by the others. This is consistent with the allegedly elusive/allusive nature of the *Language of the Birds*. It is appropriately consistent with:

- understandings of definition as being associated with reductionism, reification and closure -- a form of cognitive "dead hand" precluding openness and evolution. The argument has been developed through the theory of [general semantics](#) by [Alfred Korzybski](#) (*Science and Sanity: an introduction to non-Aristotelian systems and general semantics*, 1933) with respect to the inappropriate closure associated with assertive declarations of what "is". (cf. Paul Feyerabend, *Conquest of Abundance: a tale of abstraction versus the richness of being*, 1999).
- some form of [uncertainty principle](#) constraining the relationship between polarized distinctions (cf [Garrison Sposito](#), *Does a generalized Heisenberg Principle operate in the social sciences?* 1969)
- the strategic uncertainty notoriously articulated by [Donald Rumsfeld](#) in relation to "unknown unknowns" (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008)
- the [incompleteness theorems](#) of [Kurt Gödel](#)

Aspects of this uncertainty are central to the classic [butterfly dream](#) of Chuang Tzu ([Zhuangzi](#)):

*Once Zhuangzi dreamt he was a butterfly,  
a butterfly flitting and fluttering around, happy with himself and doing as he pleased.  
He didn't know he was Zhuangzi.  
Suddenly he woke up and there he was, solid and unmistakable Zhuangzi.  
But he didn't know if he was Zhuangzi who had dreamt he was a butterfly,  
or a butterfly dreaming he was Zhuangzi.  
Between Zhuangzi and a butterfly there must be some distinction!  
This is called the Transformation of Things*

## Memetic flocking dynamics through Twitter

Curiously the association between tweets and memes has as yet been poorly explored. Techno-meme, or [temes](#), have been described by [Susan Blackmore](#) (*Artificial, Self Replicating Meme Machines*, 2009). However, for [Rick Murphy](#) (*Tweets: new vehicles for meme replication*, *The Phaneron*, 13 February 2009):

There's no doubt that Twitter has captured everyone's imagination, but what's really happening on Twitter? And what's really different about Twitter? The short answer is very fast replication of culture in the form of memes through a highly efficient

vehicle called Tweets. Think Tweeme.... Blackmore's memes do not seem well defined and a close examination reveals some fuzzy singularity-like thinking, but a careful examination of memes on Twitter will lead us to understand Tweemes and why Tweets are highly efficient vehicles for cultural replication. Blackmore's memes are, or are becoming, self replicating.... So if humanity is a gene pool and the internet is a meme pool, then Twitter is a meme pool with special characteristics that accelerate cultural evolution. Tweets are vehicles that transmit embedded memes that we can call Tweemes.

Murphy points to a facility named **Twemes** ("Twitter memes, global tags for Twitter"), noting that that Tweemes differ from Twemes. Twemes use the hash tag (#) convention that allow users to search Twitter to narrow the search for Tweemes.

With respect to the actual dynamics of messaging on Twitter, this focus is specifically justified by arguments regarding flocking behaviour (*Flocking behaviour and the dynamics of gated conceptual communities*, 2004 -- in the context of *Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society*, 2004). This noted that a usefully comprehensible point of departure is the work initiated in 1986 on artificial life simulation, "boids", by Craig Reynolds (*Flocks, Herds, and Schools: a distributed behavioral model*, 1987; *Boids: Background and Update* + dynamic visualization, 2001) -- subsequently much-cited and developed within the field of complexity studies with regard to **swarm behaviour**. Computer simulations reveal that the complex behaviour of a flock of birds (and other swarms) can easily be simulated by following three simple rules:

1. steer to move toward the average position of local flockmates,
2. steer towards the average heading and speed of local flockmates, and
3. steer to avoid flockmates and all other objects.

The first two rules produce the cohesion and alignment of the flock, the third rule ensures the necessary separation. [Examples: [simulation](#), [starlings](#)]

**Significance of movement:** The key questions are then:

- whether the "movement" of groups of tweeters in cyberspace, in variously "following" others (semantically or memetically), can be fruitfully modelled by analogues to such rules. The analogues highlight the need to associate with an "average" (non-extreme) position of others whilst striving for a degree of originality to highlight identity **within** that movement.
- whether such movement, as exemplified and admired in nature, offers insight into the *Language of the Birds*.

More provocatively, in relation to issues of "turf", is whether some of the signals between those seeking a degree of originality would not be characterized as interjections of the cruder variety.

Of particular interest with regard to "originality" is whether the three rules provide for the kind of separation with which radical creativity is associated -- and the quest for markedly distinct identity. Or, alternatively, with recognition of the validity of a different pattern, a new paradigm -- marked by dissent through a pattern-breaking interjection -- the sound of a different drummer as widely acknowledged in the words of Henry David Thoreau:

*If a man does not keep pace with his companions,  
perhaps it is because he hears a different drummer.  
Let him step to the music he hears,  
however measured or far away.*

Framed in terms of interjections, what "melodic" signature tune of "interjections" then makes for a coherent and distinctive identity?

**Collective animal movement** has been extensively studied (S. Camazine, et al., *Self-Organization in Biological Systems*, 2003). In the case of the "waggle dance" of bees, this is a particular figure-eight dance of the honey bee whereby successful foragers can share with their hive mates information about the direction and distance to patches of flowers yielding nectar and pollen, to water sources, or to new housing locations. Curiously the above-mentioned meme mapping technique of John Paull (*Meme Maps: a tool for configuring memes in time and space*, *European Journal of Scientific Research*, 2009) also focuses on a figure-eight. Might some equivalent exist that is vital to cross-fertilization of ideas between disciplines?

There are many extremely elegant examples of such movement in the animal kingdom, whether it be flocks of birds or schools of fish. The question is then what kinds of information are carried -- in the *Language of the Birds* -- as suggested in the case of the bee dance. As explored in relation to **swarm intelligence** -- the collective behaviour of decentralized, self-organized systems, natural or artificial -- **it may be that it is through the elegant harmony of their collective movement that the collective genius of birds emerges**. Such capacity is readily to be understood as evidence of a "language" through which the emergence of a higher order of intelligence becomes manifest -- an intelligence which humans might even envy in their quest for harmony.

If the movement of birds (as explored through boids) "describes", as does the movement of tweets, how might both imply collective intelligence through memetic patterns of a kind?

**Modelling:** An early indication of the possibility of such exploration in the case of Twitter is the *Twitter Geo Loc Test*, a "quick sketch" by Jonathan Bobrow ("utilizing Dan Shiffman's flocking class, modified slightly, and Mark McBride's twitter stream library for interfacing with twitter, as a test of streaming data visualization"). The possibility in the case of Twitter participants is implied by the argument of Shawn Carlson (*Artificial Life: boids of a feather flock together*, *Scientific American*, 19 November 2000).

The relevance of games (suggested in [Annex](#)), is highlighted in a study by Andrew J. Wood and Graeme J. Ackland (*Evolving the selfish herd: emergence of distinct aggregating strategies in an individual-based model*, *Proceedings of the Royal Society*, 274, July 2007,

1618, pp. 1637-1642) noting:

Our work suggests that flock or herd formation is likely to be driven by predator avoidance. Individual fitness in the model is strongly dependent on the presence of other phenotypes, such that two distinct types of evolved group can be produced by the same predation or foraging conditions, each stable against individual mutation. We draw analogies with multiple Nash equilibria theory of iterated games to explain and categorize these behaviours. Our model is sufficient to capture the complex behaviour of dynamic collective groups, yet is flexible enough to manifest evolutionary behaviour.

An actual simulation of Twitter has been undertaken by K. C. Graham (*Complexity science and social media: Network modeling in following 'Tweets'*, *Systems and Information Engineering Design Symposium (SIEDS)*, April 2010, pp. 141 - 146):

This paper explores the behavior of the Twitter social media network through the lens of complex systems and agent-based models. By examining the behavior of power-law-based preferential attachment networks, taking data from existing Twitter accounts, and creating a basic model of the network using these data and NetLogo modeling software, this research effort provides further insight into the processes involved in community self-organization through Twitter.

Future work could explore several possibilities:

- use of Twitter data -- now having reached 100 billion tweets
- use of [Google Trends](#), with its date-stamped records on search requests
- use of [co-citation analysis](#) (Markus Gmür, *Co-citation Analysis and the Search for Invisible Colleges: a methodological evaluation*, *Scientometrics*, 57, 2003, 1, pp. 27-571).

## Emergent Language of the Birds?

How might understanding the rules associated with such dynamics facilitate self-organization in global society? (*Consciously Self-reflexive Global Initiatives: Renaissance zones, complex adaptive systems, and third order organizations*, 2007).

**"Whither maps" and "Whether maps"?** Might such modelling give rise to maps analogous to the weather maps to which people are exposed daily -- suggesting how they might benefit thereby or protect themselves from the "elements"? In terms of the sense of the diversity of directions pursued by flocks of migrating birds -- possibly forming "cyclones" and "anti-cyclones" -- could these be understood as "whither maps"? Given the collective decision-making challenges each such movement implies, could they be understood as "whether maps"?

Could appeals for collective action then be understood as "flocking calls" for which a rule-set would be advantageous -- if not vital to the emergence of collective intelligence? (*Enabling Collective Intelligence in Response to Emergencies*, 2010)

More problematic is the sense in which, whilst the genetic loss through extinction of bird species is to be regretted, it is readily forgotten that there is also the loss of the biomimetic heritage communicated through their movement. It is with this modality, held by them, with which humanity might fruitfully engage -- as have poets.

**Conferences of the birds:** To the extent that animal flocking behaviour may be seen as corresponding to gatherings of humans in face-to-face or cyberspace mode, how might such insights relate to the insights associated with myths based on the same metaphor, notably the *Conference of the Birds* (1177) of [Farid ud-Din Attar](#) or the *Parlement of Foules* of [Geoffrey Chaucer](#)? Of similarly elusive significance to the *Language of the Birds* in that context, are understandings of the "[circulation of the light](#)" and their potential implication (*Circulation of the Light: essential metaphor of global sustainability?* 2010).

How do the contributions in practice to the *Parliament of Minds* (edited by [Michael Tobias](#)) compare with such imagined discourse? It is curious that the metaphor is borrowed in describing humans as "flocking" to collective events -- possibly even on different continents.

Perhaps most intriguing is the momentary nature of such gatherings, whether of birds or tweeters, as a fleeting celebration of nowness (*Present Moment Research: exploration of nowness*, 2001). This is characterized by momentary alignment in time -- starlings on a telephone line -- when the aspiration is to have the whole of humanity "aligned", "on program" and "singing from the same hymn sheet", despite other possibilities (*Engaging with Globality -- through cognitive lines, circlets, crowns or holes*, 2009).

**Semantic web and the harmony of the birds:** Much is made of the emergence of the [semantic web](#) and its expected role in a global knowledge society. Little is said about any "harmonious" organization of knowledge and the diversity of "ways of knowing".

Given the sense of harmony implicit in the metaphor of the *Language of the Birds*, with the enchanting implications of birdsong, how might such harmony permeate global knowledge society? Suggestive is the manner in which the birds nest and gather within the various understandings of the [Tree of Knowledge](#), including especially that shared by the Abrahamic religions (as the [Tree of Knowledge of Good and Evil](#)), and that of [Humberto R. Maturana](#) and [Francisco Varela](#) (*Tree of Knowledge: the biological roots of human understanding*, 1992). For one reviewer, [Morris Berman](#) (*The Roots of Reality*, *Journal of Humanistic Psychology*, 29, April 1989, 2, pp. 277-284):

[This] is a landmark attempt to integrate biology, cognition, and epistemology into a single science, reversing the dualism of fact and value, and of observer and observed, that has haunted the West since the seventeenth century. The authors see perception as a reciprocal and interacting phenomenon, a "dance of congruity" that takes place between a living entity and its environment. This, they argue, implies a relativity of worldviews (there are no certainties), as well as the existence of a biology of cooperation

going back millions of years. Recognition of a lack of absolutes, and of the nature of perception itself, they assert, make it possible for us today to change things for the better, as a deliberate and conscious act. [see also Humberto R. Maturana, *Response to Berman's Critique of the Tree of Knowledge, Journal of Humanistic Psychology*, 31, April 1991, 2, pp. 88-97]

Clues to the nature of any such "harmony", and its implications for human society, might also be found in:

- traditional speculation regarding the harmony associated with the **music of the spheres**, common (like the *Language of the Birds*) to various cultures (**Jamie James**, *The Music of the Spheres: music, science and the natural order of the universe*, 1993)
- the "**songlines**" (or dreaming tracks) associated with Australian Aboriginal understanding of the land in which they are cognitively embedded (Bruce Chatwin, *The Songlines*, 1987) previously used as a metaphor of relevance to emergence of the semantic web (*From Information Highways to Songlines of the Noosphere: global configuration of hypertext pathways as a prerequisite for meaningful collective transformation*, 1996)
- the possibility of "tuning" such emergent harmony, as separately explored (*Tuning a Periodic Table of Religions, Epistemologies and Spirituality: including the sciences and other belief systems*, 2007)
- the cognitive possibilities implied by **overtones** and higher orders of comprehension, as noted above and separately explored (*Polarities as Pluckable Tensed Strings: hypercomprehension through harmonics of value-based choice-making*, 2006)
- the role of creative improvisation in ensuring the emergence of harmony -- notably understood as offering insights into social organization (**John Kao**, *Jamming: the art and discipline of business creativity*, 1996).
- efforts to articulate global strategic initiatives through harmony, as separately explored (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006)
- given the recognition of "conceptual primes" (as noted above) and the "ear" of mathematicians for the "music" of prime numbers, it might be asked whether there is not an analogous "music" to be "heard" amongst conceptual primes, perhaps reinforced by their patterned binary organization within a Fibonacci spiral (**Marcus du Sautoy**, *The Music of the Primes*, 2003). Is it the poet that has the "ear" to distinguish conceptual primes -- requiring a form of "perfect pitch" to attune any set of them? This would accord with the sense in which that binary coding, in the Chinese classical tradition, is effectively an identification of individual hexagrams (for example) as conceptual primes -- whose meaning is explicated in part by poetic commentary.

Given the use of **sonification** by physicists as a means of comprehending patterns of complexity, there is a case for exploring the representation of bird/boid movement as a "lens" through which to comprehend the higher order relationships between memes. Might the sonification of tweets be possible and instructive to enable patterns of movement to be better comprehended, as discussed separately (*Convertor from Text to Poetry, Song or Music: computer-assisted aesthetic enhancement of treaties, declarations and agreements*, 2007) ?

**Harmony and counterpoint -- through interjection:** The quest for "harmony" in psychosocial systems -- notably at the global level with the expectation of universal agreement -- fails to take account of the recognized role of **counterpoint** in ensuring a richer pattern of harmony. In music, counterpoint is the relationship between two or more "voices" that are **independent** in contour and rhythm and are harmonically **interdependent**. It is a feature of classical music, having developed strongly during the Renaissance.

It may be understood in terms of its Latin derivation as *punctus contra punctum* meaning "point against point". Debate within society, notably in the Westminster parliamentary model, sees "points" being made by the opposition against those made by the governing party. However, even when the notion of "point-counterpoint" is recognized in relation to debate, this is not described as a form of "counterpoint" in eliciting a richer and more inclusive harmony -- as in the musical case. What might be the guidelines for memetic counterpoint? (*Guidelines for Critical Dialogue between Worldviews*, 2006).

The manner in which an alternative "voice" is integrated into the whole in music -- a challenge of composition -- is not an inspiration in the case of debate or its outcomes. Indeed the purpose of democratic debate is to ensure that a dominant voice marginalizes potential alternatives such that they do not figure in the outcome -- with which all are expected to agree. As noted (in the **Annex**) : *if you are not with us, you are against us*. The resulting outcome is aesthetically impoverished as a result -- and as such lacks "universal" appeal. In a sense such "harmony", considered representative of desirable "integration", needs to be "liberated" from what amounts to unchallenged "**groupthink**" (*Liberation of Integration through pattern, oscillation, harmony and embodiment*, 1980; *Groupthink: the search for Archaeoraptor as a metaphoric tale*, 2002).

With respect to any *Language of the Birds*, there is a continuing debate as to whether birdsong is "music" -- being defined by some to be characteristically human (David Cohen, *Birdcalls and the Rules of Palestrina Counterpoint: towards the discovery of universal qualities in vocal expression. Israel Studies in Musicology*, 1983). It is therefore a question whether birds sing in harmony or show evidence of counterpoint. But appropriately, "competing" songs by birds asserting identity and territory might well be considered "counterpoint" -- as could be the case in interdisciplinary and interfaith discourse, could the harmony of the whole be heard. The soundscape of a forest offers harmony characterized by interjection by different "voices" (*punctus contra punctum*).

Of particular interest is the sense in which interjection is readily associated with ignorance, whether on the part of those making it or in their recognition of ignorance in those against whom they are making it. As counterpoint it corrects for assumptions of a misplaced sense of adequacy and concreteness in eliciting expression of a more comprehensive understanding. It is a response to "subunderstanding" in the terms of Magoroh Maruyama (Polyocular Vision or Subunderstanding, *Organization Studies*, 25, 2004, 3, pp. 467-480).

A counterpoint appreciation is appropriately fundamental to the patterns of binary coding (see **Annex**) which can indeed be explored, and rendered more comprehensible for some, as a musical notation. This has been extensively argued by Michael Drake (*I Ching: The Tao of Drumming*, 1997, pp. 20-21) in the light of a thesis by Melinda Maxfield (*Drumming the I Ching*, 1991):

The *I Ching* is a keyboard or periodic table of rhythm archetypes. Each pattern pulsates specific qualities of energy which give inherent structure and meaning to the possibilities of being.... so the rhythm archetypes contain the potential of communication and understanding. Resonance is the key to unlocking the rhythm generating patterns of the *I Ching* code.... Sound is a carrier wave of conscious, intelligent energy. Resonance, therefore, is a sounding again of information or pure knowledge.... Through drumming, it is possible to co-create a resonant field with a rhythm archetype. Each linear image [of a hexagram]...depicts a particular drum pattern, which renders the essence of each rhythm archetype into sound.

The argument is perhaps usefully highlighted by the archetypal "debate" between the World Economic Forum and the World Social Forum, as previously explored (*All Blacks of Davos vs All Greens of Porto Alegre: reframing global strategic discord through polyphony?* 2007). To the extent that counterpoints are "heard", they are heard as interjections -- readily (and often preferably) suppressed by either party. An even more extreme example is offered by the (non) interaction between the European Community, whose values are celebrated by its anthem (Beethoven's *Ode to Joy*), and the population at large -- whose values were exemplified by the winner of the 2006 *Eurovision Song Contest* (Lordi, a demonically attired hard rock band).

Other metaphors through which to approach the dynamics of discourse are those of juggling and ball games. In the latter case "passing patterns" are of great significance (Mark Weston, *Passing Patterns*, 2006; 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). As with drumming, the binary coding explored in the *Annex* allows *juggling patterns* to be denoted by in terms of "throw" and "catch".

With respect to the cognitive implications of the semantic web, will complex "chordal" relations between memes be elicited -- rather than the simplistic binary filtration of search "results"? How will patterns of concepts become evident, as intimated by current *concept mapping* and *semantic mapping* experiments? How will these relate to open source initiatives such as *Freebase* -- a large collaborative knowledge base, developed by *MetaWeb Technologies*, consisting of metadata harvested from many sources?

**Language of Angels vs. Language of Angles?** The *Language of the Birds* is also known as the *angelic language*. There is much speculation about the nature of *angels* on whose guidance many devoutly believe humanity is dependent -- probably to a greater degree than is attributed to politicians. "Angels" are of course deprecated as pure superstition by science. The study by *Matthew Fox* and *Rupert Sheldrake* is not very helpful in this respect -- and with but a passing reference to birdsong (*The Physics of Angels: exploring the realm where science and spirit meet*, 1996). Several alternative perspectives could however be fruitfully considered.

It is accepted that angels, to the extent they "exist", would now be described as living in subtler dimensions which could well accord with understandings by physics of multidimensionality. The human brain is very constrained in its capacity to understand such multidimensionality, especially in the ways it is explored by physics (*Dynamics of Symmetry Group Theorizing: comprehension of psycho-social implication*, 2008). Anthropomorphizing such complex "configurations" is clearly one route to comprehension, as congenial to some as it is alienating to others. The remark of *Kenneth Boulding* (*Image*, 1956) with regard to an "individual" might as well apply to an "angel":

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 group, organization, department, discipline or science. If personification is a metaphor, let us not despise metaphors -- we might be one ourselves.

The disturbing implications of *Gödel's incompleteness theorems* regarding undecidability have now been reinforced by the work of *Harvey Friedman* (*Boolean Relation Theory and Incompleteness*. 2010) through identification of entirely new forms of incompleteness. In his summary of such challenges, Richard Elwes (*It doesn't add up, New Scientist*, 14 August 2010) asks whether "a gaping hole has opened up in the foundations of mathematics". However, with respect to the above argument, perhaps even more challenging, is what this may imply for a "gaping hole" in the foundations of philosophical reflection on the development of consciousness and the governability of the planet. Curiously, as noted by Elwes:

With Friedman's work, it seems Gödel's delayed triumph has arrived: the final proof that if there is a universal grammar of numbers in which all facets of their behaviour can be expressed, it lies beyond our ken.... The only way that Friedman's undecidable statements can be tamed, and the integrity of arithmetic restored, is to expand *Peano's rule book* to include "*large cardinals*" -- monstrous infinite quantities whose existence can only ever be assumed rather than logically deduced.... We can deny the existence of infinity, a quantity that pervades modern mathematics, or we must resign ourselves to the idea that there are certain things about numbers we are destined never to know

Such large cardinals, notably understood to be "inaccessible", have yet to be fully admitted into the axioms of mainstream mathematics. Might they have been as readily named "angels" as "cardinals"?

Another approach is to assume that there is a necessary degree of conflation of the senses -- *synaesthesia* -- through which any such "entities" could be apprehended. In a sense they minimally require a polysensorial mode of cognition. Any relevant distinctions would need to be made in that mode (*Strategic Challenge of Polysensorial Knowledge: bringing the "elephant" into "focus"*, 2008; *Cyclopean Vision vs Poly-sensual Engagement*, 2006). Provocatively, given the cognitive significance of the "playful" relation between "memetics" and "mimetics", it might be argued that a fruitful "angle" on "angels" is to recognize the possibility of the conflation of these lexical distinctions -- readily acceptable to the dyslexic, as in the former case. Supportively perhaps, for in *Les Demeures Philosophales* (1929),

Fulcanelli argues:

The *language of the birds* is a phonetic idiom solely based on assonance. Therefore, spelling, whose very rigour serves as a check for curious minds and which renders unacceptable any speculation realized outside the rules of grammar, is not taken into account.

"Angels" might then be better understood as the fundamental nodal clusterings of memetic relationships in an appropriately dimensioned topological space -- thereby holding their "angular" relationship to one another. More cognitively problematic is the extent to which any "experience" of "angels" is liable to involve a challenging degree of self-reflexive mirroring, as previously considered (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008).

A related possibility is to consider that any multidimensional "movement" -- any detected (elegant) pattern of movement of memes -- might be equally difficult to distinguish from "angelic" forms. More than the need for a "conflation of the senses" is a recognition of a need for a conflation of intelligences, consistent with the theory of **multiple intelligences** -- notably including the **kinaesthetic intelligence** so fundamental to swarm intelligence. A form of "cognitive fusion" may be required, as enabled for fighter pilots (*Enactivating a Cognitive Fusion Reactor*, 2006). This may be associated with understandings of "grokking" (*Authentic Grokking: Emergence of Homo conjugens*, 2003). In terms of any sonification of such movement, the resonances by which the soundscape and its "inhabitants" are defined could also be mapped in terms of the wide range of centro-symmetric polyhedra (*Polyhedral Pattern Language: software facilitation of emergence, representation and transformation of psycho-social organization*, 2008).

Arguably, at least for some, it is difficult to imagine a "holier" representation than the visual rendering of **Eg** -- any of several closely related **exceptional simple Lie groups** and Lie algebras of **dimension 248**. Arguably, for some at least, their renderings exceed by far those of any (static) cathedral rose window. Such mathematical objects are recognized as being of a very high **order of symmetry** -- appropriate for an angel? There is an irony to the failure to relate such possibilities to the significance attributed to the geometrical symmetries of the decoration of the mosques of Islam (**Keith Critchlow**, *Islamic Patterns*, 1976).

A musical analogue would be equally astounding, suggestive of the purported birdsong of the *Language of the Birds* in their totality -- possibly as associated with a mythical Conference of the Birds.

**Future "aesthetics of governance"**: The argument above suggests the possibility that the *Language of the Birds* may ensure the emergent self-organization of community through the collective intelligence associated with movement and harmony -- enhanced by "counterpoint" in both cases. It is through that degree of organization that their collective intelligence would be expressed -- perhaps to be understood as overtones. To the extent that it is a language in which rhythm plays a vital role, there is a case for exploring all the implications for the cognitive organization of governance (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006; *Poetry-making and Policy-making: arranging a marriage between Beauty and the Beast*, 1993). The possibility is especially pertinent in the current engagement with cultures for which poetry may be of quite unusual significance at every level of society (*Poetic Engagement with Afghanistan, Caucasus and Iran: an unexplored strategic opportunity?*, 2009; *Strategic Jousting through Poetic Wrestling: aesthetic reframing of the clash of civilizations*, 2009). How profoundly ironic to enable the spread of democracy with drone deployment -- given its musical connotations: a Naive A-Tonal Operation?

The question for global governance is **how to derive insights from such patterns in ensuring a more fruitful and appropriate organization of knowledge and insight** -- as is appreciated in the composition and performance of music, especially in its improvisation. Will such features emerge as a consequence of the evolution of human society, as separately explored? (*Aesthetics of Governance in the Year 2490*, 1990). How might this relate to speculation regarding the nature of a **postliterate society**? Especially intriguing is the possibility that some cultures may have a stronger disposition for harmonic relationships guided by a relatively constrained rule-set. The case of African cultures disadvantageously subject to unfamiliar modes of knowing offers one example, as previously argued (*Knowledge Gardening through Music: patterns of coherence for future African management as an alternative to Project Logic*, 2000).

How will such non-binary organization of knowledge sustain imaginative responses to the challenges of the future -- and their collective comprehension (*Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation*, 2007; *In Quest of Mnemonic Catalysts for comprehension of complex psychosocial dynamics*, 2007). In such terms a case is usefully made for recognizing the role of myth in contemporary society, especially among the young as future voters -- and despite its deprecation by science (*Relevance of Mythopoetic Insights to Global Challenges: cognitive integration implied by the Lord of the Rings*, 2009). Of relevance in that example is the purported engagement of Tolkien with the *Language of the Birds* (Jay Weidner and Sharron Rose, *Tolkien at the End of Time: alchemical secrets of The Lord of the Rings*). In a problematic global context, the ability of myth to engender coherence merits attention, as demonstrated in the case of cultural epics such as the *Mahabharata* or the *Kalevala* (*Cognitive Fusion through Myth and Symbol Making: archetypal dimensions*, 2006).

The current framing of those challenges in terms of the collective **resilience** required to navigate the **adaptive cycle** suggests the merits of configuring its semantic paradoxes through a **Möbius strip** (*Adaptive Hypercycle of Sustainable Psychosocial Self-organization*, 2010). The configuration of the dimensions noted above (and in the **Annex**) might then be said to imply such a pattern, as well as the figure-8 pattern elicited by the meme mapping exercise (noted above).

The elusive/allusive nature of the *Language of the Birds* highlights a modality in which the current problematic consequences of misplaced concreteness and premature cognitive closure are elegantly (even provocatively) avoided -- an expression of the Vedic cognitive adage *Neti Neti*. This might be expressed as a healthy emphasis on emergent **potential** rather than on linear **progress** -- increasingly so characteristic of the dysfunctionalities of the myth of sustainability (*Entelechy: actuality vs future potential*, 2001). The

Oulipo variant of the *Language of the Birds* (noted above) is a provocative approach to such reframing (*Lipoproblems: developing a strategy omitting a key problem*, 2009).

**Aesthetic explorations of governance:** Renewed efforts are being made to simulate the detailed dynamics of global society according to the conventional thinking of specialists in international relations. As previously discussed (*Considering All the Strategic Options -- whilst ignoring alternatives and disclaiming cognitive protectionism*, 2009), these include the **Sentient World Simulation** (SWS) and the **FuturICT** project (*The FuturICT Knowledge Accelerator: unleashing the power of information for a sustainable future*). In the light of the above argument, it is questionable whether these approaches will engender insight appropriate to comprehension of the challenges -- whether in the eyes of policy-makers or of those who purportedly mandate them. The election of the Belgian **Herman Van Rompuy** (aka "**Haiku Herman**") as president of the European Council might be understood as responding more appropriately to the requisite subtlety of a *Language of the Birds* -- especially in the light of the analysis in the *Principia Cybernetica* regarding a special political modality known as the "**Belgian compromise**". Typical solutions derived in this way are such that complex issues are settled by conceding something to every party concerned, through an agreement that is usually so complicated that nobody completely understands all its implications.

In relation to the *Language of the Birds*, it is therefore interesting to note the continuing appeal of the *magnum opus* of Nobel Laureate **Hermann Hesse** (*The Glass Bead Game*, 1943). This is skillfully allusive regarding the nature of that "game" as an organizing focus for a society -- analogous at a psychocultural level to the Olympic Games. It effectively points to the possibility of a *Language of the Birds*. Another imaginative exercise is that of the poet **Robert Graves** in imagining a society governed by poets (*Seven Days in New Crete*, 1949).

Of current relevance to explorations of the modality of a *Language of the Birds*, is the flourishing cultural phenomenon, the **Société Imaginaire** (founded in 1984), and sustained by the initiative of the Bataz Foundation as "a cultural answer to globalization". It claims to group over 500 artists, writers and scholars from around the world (The Imaginary Society, *International Herald Tribune*, 4 January 1995). The challenge of "describing" and "defining" the necessary subtleties of such an initiative is well illustrated by the "non-descriptions" of it offered in the "antimanifesto" by Poet Laureate **Mark Strand** on its website:

People ask, "What is the *Société Imaginaire*? Does it exist? Or is it an Illusion?" The answer is: the *Société Imaginaire* exists, but it cannot be summarized without its subtlety being blunted or its fluency being compromised. It lives by refusal, by saying "no" to what other groups or societies depend on for survival. It has no manifesto, and will not be bound by any explicit formulation of its aims. It exists as a paradox; it is most alive when its life can be least assumed. Although it welcomes attempts to define what it is, it knows none will be right. If its members are evasive when asked to explain it, it is because they know that any answer, once uttered, comes too late. It is committed to "beyondness", to being always one step ahead of what can be said about it. Thus, it keeps growing. And though it has a history, a past amply documented with poems, prints, and statements of various sorts, it is always in the act of discarding them. Its archive is not just the natural by-product of its existence, but the repository of what should not be repeated. Its attention is fixed on the blank where the features of its new face will take shape. Its members are everywhere. They write to each other, and collaborate on projects that are dedicated to simultaneously establishing the *Société* and abolishing it, giving it an artifactual and literary history that it must forget. It is not dedicated to the cliché that we learn by experience. Rather, it believes that experience must be mistrusted, only then is learning possible. Its aim is not to describe the world, but to remystify it. It offers creation as a mode of life and a condition for living; at least for a time. This time.

In this period of conflict, the *Société Imaginaire* has given focus to its concerns in a project in Afghanistan. This is consistent with the above-mentioned recognition of the potential role of poetry in that arena (*Poetic Engagement with Afghanistan, Caucasus and Iran: an unexplored strategic opportunity?*, 2009). However, given the involvement of the European Union there, it is unfortunate that the aesthetic insights of "Haiku Herman" do not enable that engagement to be reframed (*Ensuring Strategic Resilience through Haiku Patterns: reframing the scope of the "martial arts" in response to strategic threats*, 2006).

## Personal implication and embodiment: transcending personal "twitter"

The interplay of the four dynamics, described and configured above (biomemetics, biomimetics, epimemetics and epimimetics), merits exploration in terms of their personal cognitive implication.

**Internal discourse as "twitter":** There is a case for recognizing the extent to which "twitter" aptly describes what schools of meditation notably recognize (and challenge) as inner dialogue or **internal discourse** -- a constructive act of the human mind and a tool for discovering new knowledge and making decisions. With respect to meditation, many comments are however made as follows:

Probably the greatest challenge in developing a strong ability to meditate is the obstruction to inner silence that comes about from the internal verbal dialogue, as Carlos Castaneda called it. When our minds are working throughout the day, we talk to ourselves through our thoughts. When we're working and actively thinking, this verbal thinking is very useful. It helps us organize our thoughts, decisions, and strategies for doing things. When we attempt to achieve inner silence for meditation, however, it becomes the chief obstruction to achieving a peaceful, quiet mind. (*Silencing the Internal Verbal Dialogue in Meditation*, 2010)

Estimates might even be made as to the number of such dialogue elements -- "internal tweets" -- a person "transmits" in a period (thoughts per day?). Given the 140 character limitation on tweet length, one might also ask, as is the case in Buddhist reflection on the matter: "how long does a thought last"? The question presumably needs consideration in relation to the speed of **electrical synapses** in the brain and the fact that synapses there can function simultaneously.

*Google Answers* presents a **range of estimates** from different sources based on references to a widely-cited estimate from a National

Science Foundation study (not located) that the "average person" thinks about 12,000 thoughts per day, whilst a "deeper thinker" puts forth 50,000 daily -- 1,000 per hour, and 2,500 per hour "when writing." In relation to synapses, the issue of whether a thought is a "wave form" or "digitized" is of secondary interest.

**Integrative thinking:** The creative "coming together", or integrative convergence, of thoughts might well be experienced and presented as the arrival of an "angel" (as with reference to a [muse](#) or [daimon](#) in the classical Greek sense). This would typically be a "smaller" one, but occasionally a "larger" one -- perhaps dependent on how many "angles" had been configured together. Might a "larger", more integrative, angel indeed be of higher dimensionality and symmetry?

Under such circumstances, any experiential or cognitive distinction between "angle", "angel", "chordal harmonic", "overtone" or pattern of "movement" is irrelevant. The harmonies of "birdsong" may then also be an appropriate metaphor. Whether in the arts (as an evocative poetic rhyme or a melody) or in the fundamental sciences (as an equation), it is the integrative experience of the creative inspiration in the moment which renders any distinctions irrelevant. It is also in this sense that poetry is recognized as a "divine language". A related metaphor of potential significance is that of the "[circulation of the light](#)", as mentioned above (*Circulation of the Light: essential metaphor of global sustainability?* 2010).

A challenge lies in the encounter of the product of such elusive higher-order integration by others -- especially when associated with their unique claims to originality and scope -- as discussed separately (*Musing on Information of a Higher Quality*, 1996; *Engaging with Questions of Higher Order: cognitive vigilance required for higher degrees of twistedness*, 2004).

However, as noted above, it is curiously appropriate that integrative ("holistic") schema are most evocative of sexual interjection in the larger world -- potentially indicative of both fruitful corrective insights and equivalent to the reproductive motivation. This is consistent with the paradoxes of "knowing thyself" as previously explored (*Intercourse with Globality through Enacting a Klein bottle: cognitive implication in a polysensorial "lens"*, 2009; *Engaging with Globality through Knowing Thyself: embodying engagement with otherness*, 2009).

**Personal globalization:** In the above sense, the title of this exploration -- *Re-Emergence of the Language of the Birds through Twitter?* -- is therefore appropriately considered from an individual perspective. This is especially the case to the extent that such processes and categories are understood as "externalities" (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009).

It is consistent with explorations of the personal cognitive significance of globalization (*Personal Globalization*, 2001; *Being the Universe : a metaphoric frontier*, 1999) and with the sense in which a personal website might be reframed as a "wizdome" (*Transforming Static Websites into Mobile "Wizdomes": enabling change through intertwining dynamic and configurative metaphor*, 2007).

Given the sense in which fundamental value-charged categories have been associated (metaphorically) with deities, whether as muses or as in a classical pantheon, there is also a case for recognizing the extent to which such categories are internalized. With regard to the Greek pantheon -- the [Dodekatheon](#) -- there is an implication, reflected in traditional tales, of the relationships between the deities. How such interactions might be understood as formulated within a "language of the gods" is another matter. There is however the intriguing sense in which the organization of the pantheon can be considered a reflection of the operation of the (collective) human mind (*Union of Intelligible Associations: remembering the dynamic identity of a dodecameral mind*, 2005).

**Tone-based language:** Further clues to the nature of the harmony through which any *Language of the Birds* (or gods) might be formulated are offered by [Antonio de Nicolas](#) (*Meditations through the Rg Veda*, 1978) regarding the use of languages based on tone -- in his study of the four complementary conceptual languages of the *Rg Veda*. These were considered necessary to hold the complexity of insights and experience. His explorations were associated with the musical theory of [Ernest G. McClain](#) (*The Myth of Invariance: the origins of the gods, mathematics and music from the Rg Veda to Plato*, 1976). He offers the following insight relevant to the nature of personal cognitive embodiment.

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

In ancient times, the infinite possibilities of the number field were considered isomorphic with the infinite possibilities of tone...*Rg Veda* man, like his Greek counterparts, knew himself to be the organizer of the scale, and he cherished the multitude of possibilities open to him too much to freeze himself into one dogmatic posture. His language keeps alive that 'openness' to alternatives, yet it avoids entrapment in anarchy. It also resolves the fixity of theory by setting the body of man historically moving through the freedom of musical spaces, viewpoint transpositions, reciprocities, pluralism, and finally, an absolutely radical sacrifice of all theory as a fixed invariant. (Antonio de Nicolas, *Meditations through the Rg Veda*, 1978, pp. 57

For those in expectation of "[planetary consciousness](#)", might the "[global brain](#)" be faced with a problem of "twitter" in the absence of "re-cognition" of an emergent *Language of the Birds* -- or does that "problem" constitute fruitful counterpoint, implying larger harmony? How might such considerations relate to the initiative of the [Global Consciousness Project](#) ?

## Conclusion

As indicated in Fig. 1, providing an initial overview of the argument, the intention has been to interweave a variety of themes -- typically dissociated. Whilst Twitter is a matter of current everyday reality within an emergent global knowledge society, the *Language of the Birds* is a feature of the mythical heritage of a wide range of cultures. Its mythical nature provokes speculation as to what it might be (or have been understood to be) at a time when the semantic web evokes speculation on how knowledge can be more fruitfully articulated globally. However, consistent with the evident subtlety of physics in reflecting on the fundamental nature of a multidimensional universe, the language in which concepts can be formulated regarding the possible nature of a *Language of the Birds* merits corresponding subtlety.

The argument above has stressed the necessarily allusive/elusive nature of such a language. It has used the possibility of configuring interjection -- including silence -- to elicit "higher explicatures" through meta-narrative. The suggestion is that such configuration serves as a challenging "gateless gate" to the *Language of the Birds* -- in the Zen tradition of the 13th century configuration of 48 koans, the *Mumonkan* (Robert Aitken, *The Gateless Barrier: the Wu-Men Kuan*, 1991). The antimanifesto (above) of the Société Imaginaire neatly warns against the trap into which many fall when inspired by a *Language of the Birds*. As emphasized in apophysis -- "unsaying" -- it is as much what it can be declared to be as the antithesis of such description. A language appropriate to the times (*Being What You Want: problematic kataphatic identity vs. potential of apophatic identity?* 2008).

In this sense, the possibility of some such language raises questions, as is the nature of interjections in response to conventionally articulated patterns. In the alchemical tradition, with which the language is held to be associated, the design challenge is that of the cognitive "container" for that which characteristically dissolves any container -- the *alkahest* as universal cognitive solvent. This allusion may be seen in the light of the highly questionable cognitive role played by the container metaphor in current discourse, as articulated by George Lakoff and Mark Johnson (*Metaphors We Live By*, 1980).

The cognitive challenges of such a language may be compared with the current paradoxical design challenges for a nuclear fusion reactor -- in which contact of nuclear plasma with the containing reactor wall must be prevented to avoid quenching and thereby inhibiting fusion. By analogy, it might be said that the cognitive challenge of the times is to avoid "cognitive quenching", as separately explored (*Enactivating a Cognitive Fusion Reactor: Imaginal Transformation of Energy Resourcing (ITER-8)*, 2006). It is this through this that any "circulation of the light" might be ensured (*Circulation of the Light: essential metaphor of global sustainability?*, 2010).

It is to that end that further reflection on the possible nature of a *Language of the Birds* merits imaginative reflection. Seemingly, to enable its essential function, it "is" (or needs to be) a language that flickers between multiple connotations -- alluding to correspondences without fixating on them -- evoking new patterns of insight and their resonances (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007). It thereby engenders new modes and possibilities of cognitive embodiment -- as implied again by George Lakoff and Mark Johnson (*Philosophy in the Flesh: the embodied mind and its challenge to western thought*, 1999). Use of the traditional binary coding system explored in the Annex, and its embedding within a Fibonacci spiral, offers design features consistent with the complexity and subtlety of the challenge.

In such a context the associations of the *Language of the Birds* with rhyme, poetry, music, mathematics or movement, are all to be considered partial concretizations of a modality whose essential dynamics are reminiscent of the *resonant hybrid structure* of the molecule common to all organic structure -- and therefore to life. As a form of *Rosetta Stone* of relevance to the fragmented cognitive challenges of global governance, the nature of the language is as much what it can be creatively imagined to be as not.

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