



laetus in praesens

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21 October 2013 | Draft

Psychosocial Implication of Without Within

Enjoying going solar for oneself

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Introduction

The possibility explored here is the degree to which much that is held to be "external" and "objective" can be fruitfully explored as a projection of an "internal", "subjective" form of comprehension. The significance of the terms used with regard to this possibility is itself necessarily questionable, with the process of "defining" in effect calling for "refining" -- "definition" for "refinement". Any discussion of the possibility is necessarily challenged by paradox, as discussed previously (*¿ Defining the objective ∞ Refining the subjective ?!*: *Explaining reality ∞ Embodying realization*, 2011).

Potentially at least, the possibility has considerable implications for psychosocial engagement with the global "problematique" -- the complex of problems and crises with which the world appears to be faced -- and for the "resolutique" for which the [Club of Rome](#) has called in the past ([Alexander King](#) and [Bertrand Schneider](#), *The First Global Revolution*, 1991). This is evident from the overriding tendency to frame problems and remedial action as externalities conforming to the strategic modalities favoured by government, business and technology. Despite calls for "new thinking", such a framing tends to preclude what might be associated with an "imaginatique", as discussed separately (*Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation*, 2007).

The possibility acquires particular focus through a degree of recognition that governance is much challenged in responding to increasingly evident crises (*Ungovernability of Sustainable Global Democracy ?* 2011). Currently this is indicated by the severe collective embarrassment at the difficulties of responding coherently to the most recent report of the [Intergovernmental Panel on Climate Change](#) (IPCC). As noted in the work of [Adam Corner](#) (*Climate Science: why the world won't listen*, *New Scientist*, 26 September 2013):

The scientific and economic cases were made. Surely with all those facts on the table, soaring public interest and ambitious political action were inevitable? The exact opposite happened. Fast-forward to today, the eve of the IPCC's latest report on the state of climate science, and it is clear that public concern and political enthusiasm have not kept up with the science. Apathy, lack of interest and even outright denial are more widespread than they were in 2008.

How did the rational arguments of science and economics fail to win the day? There are many reasons, but an important one concerns human nature. Through a growing body of psychological research, we know that scaring or shaming people into sustainable behaviour is likely to backfire. We know that it is difficult to overcome the psychological distance between the concept of climate change -- not here, not now -- and people's everyday lives. We know that beliefs about the climate are influenced by extreme and even daily weather.

These factors would seem to suggest the merit of a complementary exploration regarding the extent to which neglected "individual" psychological factors play a crucial role in the engagement with "global" phenomena. Is there indeed a case for a more radical approach

to the relation between what is deprecated as "subjective" (and "intangible") and what is extolled as "objective" (and "concrete")?

Provocatively and succinctly framed, this possibility follows from the innovative Renaissance insights of [Marsilio Ficino](#) regarding the "planets within" (*Composing the Present Moment: celebrating the insights of Marsilio Ficino interpreted by Thomas Moore*, 2001). It is also potentially consistent with the work of [Joseph Campbell](#) (*The Inner Reaches of Outer Space: metaphor as myth and as religion*, 1986) and of ecophilosopher [Henryk Skolimowski](#) (*The Participatory Mind: a new theory of knowledge and of the universe*, 1994). The argument has many affinities with Plato's *Allegory of the Cave*.

The possibility has previously been explored otherwise (*En-joying the World through En-joying Oneself: eliciting the potential of globalization through cognitive radicalization*, 2011; *World Introversion through Paracycling: global potential for living sustainably "outside-inside"*, 2013; *Personal Globalization*, 2001; *Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009; *Degrees of Cognitive Engagement with Interrelated Global Categories*, 2009). The latter document relates the approach to a range of specific issues in the global problematique: hunger, pollution, unemployment, etc.

Although such remarks can be considered suggestive pointers, the intent here is not to seek closure on an acceptable explanation. Rather the concern is to point to a degree of freedom which individuals may explore for themselves, irrespective of whether any emerging insights accord with explanations furnished by external authorities -- typically themselves much challenged by a variety of contradictions, as at present. This reservation applies as much to insights of the past and their formulation -- and especially to affirmations regarding the nature of psychophysical reality (whether of Jung/Pauli or Ficino).

The challenge is one of imagination, as suggested from various perspectives (Veronica Goodchild, *Songlines of the Soul: pathways to a new vision for a new century*, 2012; Sean Patrick, *Nikola Tesla: imagination and the man that invented the 20th Century*, 2013; Joan Chodorow, *Jung on Active Imagination*, 1997).

Going solar as an exercise in technomimicry

The argument has been previously made that there is a case for reviewing the articulations of technology in the light of the legitimacy now accorded to reviewing those of biology through [biomimicry](#) or biomimetics (*Engendering a Psychopter through Biomimicry and Technomimicry: insights from the process of helicopter development*, 2011). The arguments noted above with respect to "inner space" and "participatory mind" are indicative, as with the interpretation of Marsilio Ficino by [Thomas Moore](#) (*The Planets Within: the astrological psychology of Marsilio Ficino*, 1990).

Given the case now made for "going solar", as a major source of alternative energy, how might that technical articulation regarding an externality be explored for its internal psychological implications?

The role of solar energy and light in sustaining life calls for little comment. A degree of psychological implication has been acknowledged over millennia in religion and myth. Unfortunately such interpretations are now primarily treated as externalities -- practices in which the pre-scientific era engaged. There is however increasing acknowledgement of cognitive processes associated with irrationality and even its advantages ([Charles Handy](#), *The Age of Unreason*, 1991; Stuart Sutherland, *Irrationality*, 1994; Dan Ariely, *Predictably Irrational: the hidden forces that shape our decisions*, 2008; *The Upside of Irrationality: the unexpected benefits of defying logic at work and at home*, 2010)

The argument for an alternative interpretation is suggested by the "irrational" value attached to sunshine, whether in orientation of a dwelling, the criteria for a holiday, sunbathing, or the aesthetics of the interplay with clouds. It may even be advanced as the primary justification for failure to explore dwelling underground, despite intense urban overcrowding (*From Lateral Thinking to Voluminous Thinking: unexplored options for subterranean habitats in dense urban areas*, 2007).

Myth and symbolism offer further leads in associating the Sun with awareness, consciousness, and even with [solar deity](#) in many instances. Hence the extent of [sun worship](#) -- if only in its secular form. The Sun has been readily and deliberately associated with the Sovereign of a state, most notably in the case of [Louis XIV of France](#) as "Sun King" (*Symbolic connotations of sovereignty in a meaningful process*, 2013).

However, despite any greater "intimacy" associated with worship, as categories these are treated as externalities. In particular, with respect to "consciousness", it is as though this was viewed through some form of cognitive window -- glazed, to preclude the degree of participation that might otherwise be implied (and as might follow from the arguments of Skolimowski).

A more cognitively radical approach is to associate the viewing consciousness and its processes with "being solar". In this sense the experience of waking is qualitatively similar to the dawning of the Sun, and the conscious end of the day to dusk -- associations that could be readily and comprehensibly explored in poetry.

Beyond such descriptive indication, is the sense of how consciousness engages with the externality of objects -- rendering them visible through the light of awareness, effectively "engendering them". The light can be recognized as energizing many of them, enabling movement -- much as cold-blooded reptiles are dependent on solar warmth. This offers the temptation of recognizing some "objects" as directly dependent for their independence on such exposure, whereas others -- the "warm-blooded" -- are only indirectly dependent on exposure to consciousness awareness.

This form of argument can be understood as consistent to a degree with the manner in which reality is constructed and enacted -- according to some philosophies and theories. The point to be stressed however is that it is the experience of "being solar" that is primary, rather than "ex-planations" through which that experience may be objectified. Curiously the process of objectification, whereby an object is engendered as a "child" of that process, detracts from the engendering awareness. However, and paradoxically, "being solar" implies a degree of detachment of awareness from what is thereby engendered.

Accepting this technomimetic argument to any degree, then frames the possibility of interesting questions regarding the sustainability of solar processes and the interfaces through which the possibilities of deriving solar energy are now explored -- photovoltaic panels, mirror arrays, etc. What insights from those technologies are suggestive of those relating to conscious awareness, how it may be focused, and the psychosocial energy that might be derived therefrom?

Especially intriguing is the subtlety of the experience of sunlight despite the energy known to be associated with it -- and the challenge of "capturing" it. The delicate insubstantiality of sun beams offers an appropriate metaphor for the delicacy of conscious awareness -- whose "capture" may be similarly elusive (as advertisers are only too aware).

Just as a case is made for "going solar" as a source of energy (as conventionally understood), what could be envisaged with regard to "going solar" in psychosocial systems? Can the quest for psychosocial energy be considered in this light, as separately discussed to some degree (*Reframing Sustainable Sources of Energy for the Future: the vital role of psychosocial variants*, 2006)?

Planets "within" as vehicles for significance?

As noted above, Marsilio Ficino accorded significance to the "planets within" as a pioneer of Renaissance thinking. The implication has been helpfully described by Thomas Moore (*The Planets Within: the astrological psychology of Marsilio Ficino*, 1990) and by Vernon Wells (*Tempering Heaven: a commentary on the first chapter of Marsilio Ficino's De vita coelitus comparanda*, 2010). A related framing is offered by Joseph Campbell (*The Inner Reaches of Outer Space: metaphor as myth and as religion*, 1986).

The challenge for conventional thinking at this time is that both "astrology" and "myth" are scornfully deprecated by "science". The difficulty for science is its own eroding credibility in the face of intractable challenges to society for which it bears some responsibility, however vigorously denied ("*Science does not kill people, people do*"?). The difficulty is all the greater in that "science" denies all responsibility for them, especially given that collective "responsibility" is of no significance to science as a methodology. Science also exhibits strange inadequacies in addressing the problematic dynamics of knowledge processing within science (*Knowledge Processes Neglected by Science: insights from the crisis of science and belief*, 2012).

Assumptions that science will "fix" the problems are increasingly questionable, especially given the challenges to consensus, whether within science or in response to any of its (non-consensual) recommendations -- as currently illustrated by issues associated with climate change (*The Consensus Delusion: mysterious attractor undermining global civilization as currently imagined*, 2011). Technocratic recourse to geoengineering as a remedy is itself questionable (*Geo-engineering Oversight Agency for Thermal Stabilization*, 2008).

It is therefore appropriate to note the degree to which appeals are made to nebulous intangibles termed "human values" as transcending in significance the variety of models and methods. Various international initiatives have endeavoured to elucidate their nature, including the [Human Values Project](#). Currently the Club of Rome has initiated a [ValuesQuest](#) with the [Alliance of Religions and Conservation](#). This could be understood as a successor to the report to that Club by Ervin László (*Goals for Mankind*, 1976), leading to the formation of the [Club of Budapest](#), and to the interfaith declaration of a [Global Ethic](#) (1993), whose promotion continues through the [Global Ethic Foundation](#). Such initiatives serve however to highlight the question of the "vehicles" by which values may be carried, once "found", if they are to be credible in popular discourse rather than abstractions typical of alienating academic discourse -- or as brandished by politicians and preachers. How indeed is a "value" to be recognized -- as being "without" or "within"?

Ficino's approach had the merit of associating a complex of values aesthetically -- including tone -- thereby enabling what might be "recognized" as synaesthesia. The "planets" together then imaginatively exemplified a "music of the spheres" -- but "within" -- a context offering other "correspondences" (*Theories of Correspondences -- and potential equivalences between them in correlative thinking*, 2007). By contrast, current quests for a set of values have yet to benefit from the attraction of the potential harmonies between them, as separately argued (*A Singable Earth Charter, EU Constitution or Global Ethic?* 2006).

It is in this sense that both myth and astrology have retained a strange credibility as vehicles over centuries.

As argued by [Kenneth Boulding](#) in discussing the evolution of images of the universe and variously preferred alternatives:

We can perhaps dismiss astrology as superstition. If we turn to the sports pages, however, we will find creatures with strange names, like Red Sox and Dodgers, engaged in endless and elaborate rituals of conflict. If we turn to the political pages, we will find embodied spirits like Uncle Sam and John bull, and animal totems in the shape of eagles, lions, and bears, exhibiting behavior and passions that are proper only to individual human beings... The enormous legitimacy of the national state and its capacity to attract human sacrifice may be related to the fact that our image of it is highly animistic and that we think of it as a person. (*Ecodynamics; a new theory of societal evolution*, 1978, p. 345).

As with any Global Ethic, by what vehicles will the values of the ValuesQuest be carried if they are to engage the attention of the wider population? This constraint on communication of subtlety over extended periods of time can be variously explored (*Minding the Future: thought experiment on presenting new information*, 1980).

The argument here is that it may well be inappropriate to assume that the last word regarding myth and astrology has been pronounced by science and that there is no scope for fruitfully revisiting their implication, whether now or in the future. The conventional attraction of such intangibles to many may obscure subtleties which only the future will appreciate appropriately -- perhaps by framing them otherwise in relation to science as it is now known.

Again, for Kenneth Boulding (*Ecodynamics; a new theory of societal evolution*, 1978, p. 344-345):

The pattern we have been describing in this book is by no means the only pattern the human race has perceived in the intricate

complexities of the universe. We can perceive perhaps a pattern of patterns. Any pattern that has been perceived is part of the total pattern itself. We cannot simply reject and ignore it. All the patterns that have been perceived, therefore, deserve at least our critical respect... Just because something is extinct, however, does not mean it ceases to be part of the total pattern... We must remember, however, that in ecological succession and in evolution later species do not necessarily replace earlier species, but coexist with them. The amoeba coexists with the mammals and with man and may even outlast all the supposedly higher forms.

Rather than being conventional externalities, the question raised by both myth and the planets of astrology is how the significance they are held to carry is internalized for those for whom this is credible. The internal significance of myth and its archetypal figures has long been a theme of some therapeutic disciplines, notably in the light of the work of [Carl Jung](#). Their manifestation in "significant dreams" has long been a challenge to other modes of explanation.

The relationship between Jung and physicist [Wolfgang Pauli](#) is of relevance in this regard (Carl Gustav Jung and Wolfgang Ernst Pauli, *The Interpretation of Nature and the Psyche*, 2012; David Lindorff, *Pauli and Jung: the meeting of two great minds*, 2004; [Arthur I. Miller](#), *137: Jung, Pauli, and the Pursuit of a Scientific Obsession*, 2010; Remo F. Roth, *Return of the World Soul: Wolfgang Pauli, C.G. Jung and the challenge of psychophysical reality*, 2011)

The experiential relation between the planets "without" and those "within" can be explored through the attraction they exert, so evident in the case of gravity. Curiously there is a degree of correspondence between the attraction of human values and the attraction of gravity -- both with unexplained characteristics and a challenge to comprehension in how they govern movement. Values can thus be fruitfully explored as strange attractors (*Human Values as Strange Attractors: coevolution of classes of governance principles*, 1993). It is in this sense that the attraction of a particular value complex can be sensed to be associated with an internal "planet" as a container or vehicle. The complexity of the shifting relationships between such vehicles -- eluding facile comprehension -- is suitably mirrored by that of the external planets.

The collective imagination has been much stimulated by the potential of travel to other planets -- or galaxies -- "without". Whatever the feasibility for the few in practice ("the 1%"), the possibility for the many ("the 99%") could be fruitfully explored as one "within".

This could prove to be consistent with the imaginative title of the compilation by the astrophysicist [Stephen Hawking](#) (*The Dreams That Stuff Is Made Of: the most astounding papers of quantum physics--and how they shook the scientific world*, 2011). The urgency of such exploration could be given focus by comparison with his widely cited assertion, and that of others (cf. Clara Moskowitz, *Stephen Hawking Says Humanity Won't Survive Without Leaving Earth*, *SPACE.com*, 10 August 2010; John M. Smart, *The Transcension Hypothesis: sufficiently advanced civilizations invariably leave our universe, and implications for METI and SETI*. *Acta Astronautica*, 78, September-October 2012).

The question is whether that insight applies as much "within" as "without". How is the "within" to be distinguished from that offered by drugs (*Enstoring through Imagination, Dreams, Drugs and Imbibing*, 2012)?

Internalizing alternative modes of transportation

Technology has developed a wide range of transportation devices: carts, bicycles, automobiles, airplanes, skateboards, etc. It is especially intriguing to note how these are treated purely as externalities whatever "translation" or "transformation" this may imply. This contrasts with the manner in which their inventors dreamed them into existence through a creative process sustaining one of experimentation. Enabling such creativity is an explicit concern in research and development in the quest for competitive advantage. As with mathematics, it might however be asked where such invention "comes from" ([George Lakoff](#) and [Rafael Nuñez](#), *Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2001).

Few would deny that such devices are in some special way a product of the human mind. It could be argued that the pattern ensuring the operating viability of any technology is developed intuitively -- as notably described in the case of [Nikola Tesla](#). It has been frequently indicated that he was capable of "testing" complex equipment in his mind prior to its construction -- simulating its operation in effect.

The argument could be made otherwise in the light of the probability that patterns "without" would not even be comprehensible unless they corresponded in some way to patterns "within".

Seemingly distinct is the sense in which vehicles and their operation are experienced by many drivers as part of themselves, whether as a form of cognitive exoskeleton or as intimately related to their sense of identity. This sense may be highly valued, even considered essential, to the skilled operation of the most complex vehicles. A variant of this identification is sought through enabling "presence" in immersive virtual reality environments (Wesley Fenlon, *Virtual Reality's Big Problem: maintaining presence*, *Tested*, 26 June 2013; *Presence: Teleoperators and Virtual Environments*).

The process of achieving a degree of identification can be considered by contrasting learning to control a known vehicle (a bicycle, an automobile) with learning to control a vehicle which has never been controlled before. The latter process has been significant in the decades of development of the vehicle which eventually took the current form of a helicopter. Its invention implied an iterative process -- for the inventor -- of testing the possibility of ensuring its stability. Especially valuable to this argument are the cognitive processes of [Etienne Oehmichen](#) who derived his most important insights from the study of insects and birds (*Nos maîtres les oiseaux: étude sur le vol animal et la récupération de l'énergie dans les fluides*, 1920). His work is now being applied to the development of drones.

The helicopter subsequently constituted a cognitive inspiration for the developer of the [Bell helicopter](#), [Arthur M. Young](#), who endeavoured to elucidate from it the principles of operation of a "psychopter", as noted above (*Engendering a Psychopter through Biomimicry and Technomimicry: insights from the process of helicopter development*, 2011).

The irony of the use of "model" as descriptor of both tangible vehicles under development, and of intangible theoretical constructs, merits consideration. This is especially the case with respect to "models" employed for collective initiatives -- as with "[conceptual models](#)", "[business models](#)" and "[strategic models](#)" -- namely the vehicles with which psychological, social and economic "space" is navigated. This indicates the possibility of understanding models, whether tangible or intangible -- without or within -- as both [philosophical constructs](#) and as the preoccupation of [social constructionism](#) and [personal construct theory](#). The challenge of how to embody them remains.

Objects, projects, rejects and subjects

The argument suggests that there is both a degree of flexibility and mystery to the manner in which "objects" are defined as tangible externalities -- segmenting "outer" reality to that end reminiscent of the construction of any "built environment".

The cognitive process is evident in the manner in which projects are envisaged and undertaken. Another aspect of the process is evident in the manner in which rejects are variously defined and excluded, again whether tangible or intangible, as separately discussed (*Omnipresence of the Remaindered in Global Society*, 2011; *Social Remainders from Psychosocial Remaindering*, 2011). This raises the question as to how rejects are to be reintegrated (*Reintegration of a Remaindered World: Cognitive recycling of objects of systemic neglect*, 2011).

Such considerations raise the further question of the role of the "subject" in the process. This is especially evident when that process is recognized more explicitly in active verbal form, as indicated by the gerunds -- objecting, projecting, rejecting and subjecting -- with their important psychosocial implications. There is clearly a strange, if not paradoxical, dynamic at the interface between what can be framed as objective or subjective (*Defining the objective & Refining the subjective ?! Explaining reality & Embodying realization*, 2011). Especially intriguing is the possible freedom to define as "tangible", or to imagine as "intangible" -- according to circumstance. The proactive possibilities have been explored to some degree as [enactivism](#).

The cognitive interplay with "objects" -- which may initially take the form of "projects" and may ultimately become "rejects" -- can clearly be understood as both defining and refining the "subject". As yet to be explored are the cognitive implications of the associated processes with respect to the vast array of objects engendered as tangibles or as intangibles -- if only as projects.

It could be argued that technology, as a mirror, is a means whereby civilization "talks to itself". Aspects of this argument are evident in the work of Erik Davis (*TechGnosis: myth, magic, and mysticism in the Age of Information*, 1998) and Robert Romanyshyn (*Technology as Symptom and Dream*, 1989). It may well have strategic implications (*Stepping into, or through, the Mirror: embodying alternative scenario patterns*, 2008).

Questionable objectification of the natural environment

Given the potential cognitive ambiguity with regard to "objects" and their eventual "rejection" -- typically on the termination of a "project" -- their absorption by the environment becomes of particular relevance. It could even be argued, by analogy, that the "disposal" of unwanted explanations and factoids in global knowledge society is reminiscent of the [Great Pacific Garbage Patch](#), also described as the Pacific Trash Vortex, namely the massive "gyre" of [marine debris](#) in the central North Pacific Ocean. Will future analysis of the internet reveal the extent to which "trash" accumulates and circulates electronically in an analogous manner -- the [midden](#) of global civilization?

The environment is of course systematically and assertively segmented conceptually into objects by the natural sciences -- with little sense of history or their probable place in the future. These objects are variously clustered in relation to different projects. This segmentation, and the relationships highlighted, may well be challenged and creatively reframed by other disciplines -- poetry, art, music and the like -- through which a more intimate, experiential, cognitive relationship may be activated. As with the arguments regarding the objects of technology, the intimacy may imply a degree of internalization of what can otherwise be described as external.

The fundamental role of this creative process is the theme of an extensive study by Daniel Dervin (*Creativity and Culture: a psychoanalytic study of the creative process in the arts, sciences, and culture*, 1990) introduced as follows:

About creativity almost everything has been said and almost nothing is known... by definition creativity denotes an original vision, work, or breakthrough of a high order, so that achievements are distinguished not by what they share in common but by what endows each with the stamp of uniqueness. Therefore the further we look for common features in creative work the further we remove ourselves from its nature.... The results of creativity are easily recognized because they reside in that environment, natural to human beings, designated as *culture*. But if culture is natural to us, it also figures as nature's mirror, distorting or clear, but always changing arbitrary, relative, and therefore radically subjective, because there are so many... value systems and versions of reality. Any culture that claims an absolute structure of reality is engaging in illusion.... Thus, at its peak of realization, creativity in the arts and sciences alike begets a vision of the world that permanently alters our sense of reality -- an idea conceived or vision incarnated in such a way that the one cannot be unthought or the other disembodied.

The synthesis elaborated by [Kenneth Boulding](#) is valuable in this respect (*Ecodynamics: a new theory of societal evolution*, 1978). He argues:

The main thrust of this work is toward human history and the perception of patterns in it... every vision of course conflicts with other visions... Each vision must be understood in terms of what it is *not* as well as in terms of what it is... The evolutionary vision is unfriendly to romantic nature worship, the view that the human race and its artifacts are not part of nature, and that nature without the human race is somehow wise and good.... The automobile is just as "natural" as the horse. It is just as much a

species, just as much a part of the total ecological system, and the idea that there is something called "ecology" in the absence of of the human race and human artifacts at this stag of the development of the planet is romantic illusion.... The evolutionary vision sees human history as a vast interacting network of species and relationships of many different kinds, and there really is no "leading factor" always in the forefront...

The evolutionary vision is unfriendly to any simple reductionism or materialism. It sees the essence of the evolutionary process in the field of information, know-how, programmed instructions, and so on, leading in the human race to consciousness and a great expansion of know-how through the development of "know-what" -- that is, conscious knowledge.... The evolutionary vision is agnostic in regard to systems of in the universe of greater complexity than those of which human beings have clear knowledge. It recognizes aesthetic, moral and religious ideas and experiences as species, in the case of mental structures or of images, which clearly interact with other species in the world's great ecosystem. (pp. 14-20).

Of relevance is the manner in which comprehension and engagement with "nature" is framed by metaphor. A valuable summary of relevance to the following argument is offered by Jozef Keulartz (*Using Metaphors in Restoring Nature, Nature and Culture*, 2, 2007) of the [European Network of Environmental Ethics](#):

Metaphors perform important cognitive functions, operating as mechanisms for the translation of something abstract into something concrete and shedding light on new and unknown phenomena through familiar ones. In short, metaphors are heuristic devices crucial for creating and conceptualizing novel ideas and new knowledge. However, metaphors are not only important cognitive tools in making sense of the world but also important discursive tools that enable communication and negotiation with others throughout the world. Metaphors then are also diplomatic devices that facilitate interaction between different disciplines and discourses (Hellsten 2002)....

Once it is acknowledged that the use of metaphor is inescapable and indispensable, however, we are confronted with the problem of the sheer multiplicity of metaphors. With respect to nature, Daniel J. Philippon (2004) has provided us with an extensive, although not exhaustive, list of metaphors for nature. Nature can be compared to a particular place (frontier, garden, park, wilderness, utopia), to a friend or family member (self, mother, father, sister, brother, wife, husband, partner), an actor (god or goddess, minister, monarch, lawyer, selective breeder, enemy), a network (web, community, tapestry), a machine (clock, engine, computer, spaceship), a state of being (virgin, harmony, balance), a mode of communication (book), a built object (bank, sink, storehouse, pharmacy, lifeboat, home), or to a contested landscape (battlefield, commons) (Philippon, 2004; see Harré et al., 1999)....

Taken together, the cognitive, discursive, and normative functions of metaphors determine our attitude towards entities in the world. Thus, for example, people who see nature as a divine text will be more likely to adopt a passive rather than an active attitude towards nature, while those who look at nature as a machine might stress our possibilities to control, command, and correct nature.

Whether as metaphors or otherwise, potentially more challenging is the manner in which the purportedly objective world may be reframed authoritatively by the insights of fundamental physics -- beyond any recognition within conventional categories (*Being a Poem in the Making: engendering a multiverse through musing*, 2012).

This suggests the merit of recognizing the degree to which features of the natural environment may be as much "within" as "without" by analogy to the framing in physics through the [Uncertainty Principle](#), and the possibility of a psychosocial equivalent (Garrison Sposito, *Does a generalized Heisenberg Principle operate in the social sciences? Inquiry*, 1969). The matter may be recognized otherwise ("*Human Intercourse*": "*Intercourse with Nature*" and "*Intercourse with the Other*", 2007).

Can it be definitively asserted that extraterrestrials -- hypothetical or otherwise, whether in the near or distant future -- would agree with the preferred segmentation of science, especially given the alternative sensitivities within human cultures (*Systems of Categories Distinguishing Cultural Biases*, 1993; *Sensing Epiterrestrial Intelligence (SETI): Embedding of "extraterrestrials" in epistemic dynamics?* 2013)?

This opens the possibility of a form of alternation between particulate objectivity and wave-like subjectivity, as separately discussed (*Being Neither a-Waving Nor a-Parting: cognitive implications of wave-particle duality in the light of science and spirituality*, 2013). Clearly this offers circumstances in which features of the environment are entirely experienced as "without" -- as well as others in which they are entirely experienced as "within". The seeming incompatibility with regard to "reality", as yet unresolved, might well be compared to that between the relativity theory of (macro-)physics and that of the quantum mechanics of (micro-)physics.

This alternation might be usefully explored in terms of digestion or respiration. In both these processes there is a cycle between "input" (ingestion, inspiration) and "output" (excretion, expiration). Both have their conscious and unconscious dimensions. Portions of each cycle are widely valued as metaphors: digestion of information, inspiration offered by externalities. The output portions offer more challenging interpretations -- one of which may be compared to "explanation".

The argument may be considered with respect to experience of the weather. Few question the impact of weather on conventional preoccupations: farming, transportation, natural disasters, tourism, drainage, etc. Of particular relevance to this argument are the psychological implications of weather, whether sunlight, precipitation, wind, or temperature. The enthusiasm for meteorological reports is relevant to both.

The effects of weather on psychology and mood have been variously explored (Alan E. Stewart, *Psychological Perspectives on Adaptation to Weather and Climate*, 2009; B. H. P. Billiton, *Extreme Weather Events Have Profound Psychological Effects on*

Individuals and Communities, ABC: communicating the concepts around climate change, September 2010; Matthew C. Keller, et al., *A Warm Heart and a Clear Head: the contingent effects of weather on mood and cognition*, *Psychological Science*, 2005; J. J. A. Denissen, et al., The Effects of Weather on Daily Mood: a multilevel approach, *Emotion*, 2008). A useful summary is provided by John M. Grohol (*Weather Can Change Your Mood*, *PsychCentral*, 9 November 2008).

How are external features of the weather "appropriated" as experiences of "internal weather"? The metaphor has been extensively explored, notably by those with chronic health concerns (Shoji Tsuchie, *Our Internal Weather*, *The Focusing Institute*, 2003; Posy Gering, *The Internal Weather Report*, 11 January 2011; Adele Annesi, *The Writer's Internal Weather and the Role of Change*, 24 August 2012).

Of particular relevance here is the solar implication -- in the light of the argument above regarding awareness. Extensive use of weather-related metaphors (cloudy, sunny, stormy, etc) is made in describing personal disposition, or that of others, at any time. Few have the ability to change their own internal weather as readily as might be assumed or desired. The internal challenge merits comparison with the challenge of external "weather modification" -- and the technologies envisaged as applicable to that possibility (cloud seeding, etc)..

The relevance of such questions to the individual is more readily comprehended. They can of course be applied to metaphorical descriptions of "group weather" (cloudy, sunny, stormy, etc). Of far greater potential relevance is their significance for collective engagement with "climate change" (*Playfully Changing the Prevailing Climate of Opinion: climate change as focal metaphor of effective global governance*, 2005; *Sins of Hot Air Emission, Omission, Commission and Promission: the political challenge of responding to global crises*, 2009).

Dominion over the world "without" -- understood as being "within"

The [relation between religion and environment](#) is a matter of developing concern, notably understood as a [crisis of values](#). This derives in part from the manner in which Christianity has taken a leading role in de-sacralizing and instrumentalizing nature to human ends, thereby implying for itself a substantial [burden of guilt](#) for the contemporary environmental crisis.

As a consequence various projects have endeavoured to integrate [preoccupations of faith with conservation principles](#), especially in the light of traditional theological doctrines of various religions. That of the [Alliance of Religions and Conservation](#) (cited above) is one example. In an editorial comment, *The Economist* (*Religion and the UN: Visions of a new world*, 8 October 2013) notes a study by Jeffrey Haynes (*Faith-based Organisations at the United Nations*, Robert Schuman Centre for Advanced Studies, 2013). An earlier study had focused on Europe (Marc Luyckx, *The EU and Islam: the role of religion in the emerging European polity*, *Cambridge Review of International Affairs*, 2000).

For those cultures subject to the interpretations of the [Abrahamic religions](#) of the *Book of Genesis*, much hangs on a key phrase with respect to the "dominion" of man. As noted by Eleonora Montuschi (*Order of man, order of nature: Francis Bacon's idea of a 'dominion' over nature*, LSE Workshop on The Governance of Nature, 2010):

The image of man's dominion over nature is deeply rooted in Western thought. It first appears, in different forms, in the *Book of Genesis*. It also reappears as one of the leading images of the emerging 'new science' in the 16th century.

For some it is known as the [cultural mandate](#) (or creation mandate), being the divine injunction found in *Genesis 1:28*. It is notably fundamental to the theocratic ideal of [Dominionism](#) and [Christian Reconstructionism](#). One translations of the verse is:

And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.

Many useful summaries and varied interpretations have been provided (Hugh W. Nibley, *Man's Dominion*, *New Era*, January-February 1981; Derek Isaacs, *Is There a Dominion Mandate? Answers Research Journal*, 9 January 2013; *Man's Dominion*, *Christian Life and Doctrine*, February 2004; *41 Bible verses about Dominion*, *OpenBible.info*). As noted in the evangelical *Theopedia* with respect to Dominion:

The concept of dominion is one of the key themes in the biblical account of the relationship between mankind and the rest of the material creation. It is a consequence of being created in the image of God, and has links to the biblical witness of Christ.

That commentary indicates the shifting contrast between an anthropo-centric view and an eco-centric interpretation.

Curiously (as with science) the primary emphasis is on the externality of nature, despite the explicit reference to the human observer as having been created as an "image". Given the extensive consideration of the paradoxes associated with an observing consciousness, most notably in physics and in Eastern philosophies, there is a case for considering how "dominion" might be interpreted if "nature" were to be considered as much "within" as "without" -- if not primarily "within", as argued above. Rather than the focus on excusing the foibles of humans as characteristic of "human nature", is there no case for exploring the more challenging possibility that "nature is human" -- as humans choose to frame it?

Whereas man's "dominion" over nature-without is controversial for some, even offensive, the "dominion" over nature-within accords to a degree with arguments for the social construction of reality. More radically, for the individual, there is every reason to acknowledge a degree of responsibility for nature-within. A form of "dominion" can then be readily acknowledged through the mastery of the world one

engenders as a personal domain -- even an estate or a home (given the etymological origins in *domus*). Such an interpretation conflates and resolves the issues regarding anthropo-centric and eco-centric with those consequent on creation of an image. The cognitive framing offered by "going solar" (as with the "Sun King") suggests a more elegant geometry of dominion (*Engaging with Globality through Cognitive Crowns*, 2009).

This radical perspective offers possibilities of creative re-interpretation of *Genesis 1:28* as cognitive challenges with respect to:

Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.

How might the injunction then be understood cognitively in relation to the "objects" of awareness as constructs "within"?

- **Be fruitful?:** appropriately to be understood as being enjoined to creativity in its most general sense -- contrasting with the current interpretation focused primarily on biological procreation
- **Multiply?:** appropriately to be understood as elaborating every conceivable pattern of relationships -- contrasting with the current "materialist" focus on unchecked population growth through [natalism](#) and [fecundism](#) ("*Be Fruitful and Multiply*": *the most tragic translation error?*, 1995)
- **Subdue it?:** appropriately to be understood as ensuring that it is indeed constrained "within" in some way, rather than problematically and challengingly "without" -- implying a contrasting focus on a form of cognitive self-mastery, a mastery of experience, or those suggested by the design challenges of [cognitive fusion](#)
- **Dominion over... every living thing that moveth upon the earth?:** appropriately to be understood as ensuring their subjective significance and place on the "earth within", and taking responsibility for their dynamics "within" -- in contrast with the efforts of mankind to (micro-)manage their place "without"

These arguments accord with the [environmental stewardship](#) role that has been variously recommended, but reframes it from a radical cognitive perspective -- potentially more feasible and sustainable. The environment is then cognitively "appropriated" -- consistent to a degree with the conventional Christian interpretation of dominion, but better understood as being cognitively "hands off", rather than "hands on" in a manipulatively invasive and possessive sense. The latter might be understood as misappropriation.

The above-cited commentary of Hugh W. Nibley (*Man's Dominion*, *New Era*, January-February 1981) notes with respect to "subdue [*kivshu*] it" and "have dominion over [*rdu b*]" in *Genesis 1:28* that:

The words *kivshu* and *rdu* both have a basic root-meaning of exerting pressure, that being, however, merely a point of departure for a whole spectrum of derivatives, so that scholars have translated the words according to individual taste and temperament to convey various ideas and types of dominion. Thus the dictionaries tell us that *radad*, with the basic meaning of trampling the earth... specifically means "to plow", while *kavash*, with the original idea of squeezing or hugging, can mean everything from "violate" to "cherish".

Rather than justifying unquestionably the questionable actions of developers "without", the implications "within" can be more readily appreciated. The process of [plowing the field](#) in Biblical terms is comprehensible with respect to any field of knowledge or cognitive endeavour -- including the most subtle spiritual exercises. Similarly the complex spectrum of experiential processes between "violate" and "cherish" is readily comprehensible in the engagement with any "subject matter", as speculatively explored separately (*Beyond Harassment of Reality and Grasping Future Possibilities: learnings from sexual harassment as a metaphor*, 1996).

Especially intriguing with respect to "dominion" is the ease with which this frames very conventional notions of property and the exclusivity of its ownership -- issues at the root of many ills relating to global inequality. Such notions are consistent with related injunctions regarding achievement of forms of dominion over all the peoples of the world -- the [Great Commission](#) of Christianity, or its equivalent in Islam and Judaism -- reinforcing military aspirations to [full-spectrum dominance](#) and political doctrines such as [Manifest Destiny](#) (as superseded by variants of the [Monroe Doctrine](#)).

The insights of fundamental physics suggest less restrictive interpretations regarding relations between frames of reference, potentially to be understood "within", as discussed separately (*Einstein's Implicit Theory of Relativity - of Cognitive Property? Unexamined influence of patenting procedures*, 2007). Preoccupation with the "intellectual property" implied by exclusive "dominion" suggests its further consideration in the light of the current debate regarding [open access](#) to published research enabled by taxpayer funding.

Although simply stated, any shift from "without" to "within" is necessarily a challenging cognitive enterprise, whether framed individually or collectively -- as religions may be recognized as having demonstrated. The question from the perspective of religions is how its exploration can be enabled in the light of both the existential subtlety central to religious faith and that offered by fundamental physics, as discussed separately (*Mathematical Theology: Future Science of Confidence in Belief*, 2011).

At the interface between faith and conservation, the question to be explored is the extent to which consideration is currently given to a cognitive reframing of the challenge. How might dominion over nature be internalized in terms of the subtleties cultivated by spirituality -- especially those emphasizing the illusory characteristics of the material, or challenging the dualism inherent in the contrast between "without" and "within".

Problems of society as "within" rather than "without"

It can be readily argued that "problems" in general are framed as cognitive constructs providing a focus for concerns, whether individual

or collective. The ambiguity associated with their recognition is illustrated by the manner in which the "existence" of a tangible problem for one constituency is readily framed as illusory and misleading by others of contrasting persuasion. Curiously the existence of a problem is highly dependent on attachment to the significance of an associated value -- no value, no problem. Mapping this pattern of mutually challenging perceptions has been a concern of the *Encyclopedia of World Problems and Human Potential*.

The argument has been developed separately (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009; *Degrees of Cognitive Engagement with Interrelated Global Categories*, 2009). The latter document relates the approach to a range of specific issues in the global problematique: hunger, pollution, unemployment, etc. via the following:

- [Table 1: Source documents indicating issues](#)
- [Table 2: Issues indicated in source documents](#)
- [Table 3: Clustering of issues identified in source documents](#)

Given the tragic suffering associated with perceived "problems" as experienced, much attention is required to the experiential interface with any treatment of them as externalities whose very existence can be so readily reframed as illusory, meaningless or negligible.

Arguably the allocation of resources to fundamental physics of matter could be challenged -- in the absence of commensurate allocation of resources to the fundamental challenges of psychophysical reality, as recognized by Jung and Pauli together (as mentioned above). It could be argued that failure to do so is precisely what engenders the apparent "externality" of many problems as a systemic form of "learning" -- a "lesson from Gaia" in the terms of [James Lovelock](#) (*The Vanishing Face of Gaia: a final warning: enjoy it while you can*, 2009; *The Revenge of Gaia: why the Earth is fighting back - and how we can still save humanity*, 2006).

Curiously a careful examination of optical metaphors is called for -- given the manner in which these are used both in articulating strategic "visions" of remedial collective projects and in deprecation of perceived problems as illusory "projections". Optics would seem to offer a rich source of comprehensible metaphors for greater insight into both "illusion" and any "image" it is sought to cultivate as an indication of appropriate governance -- however illusory this might be held to be. This could apply to any cognitive "projection" implied by the framing of a "project" .

Transforming awareness framed by stellar evolution

Rather than focus on definitive explanatory closure, there is a case for facilitating imaginative explanation of possibilities of comprehension. Returning to the possibility of "going solar for oneself", there is then the possibility of benefitting from the patterns recognized by astrophysics with respect to the [Hertzsprung-Russell diagram](#).

How indeed has it been imagined that a star "evolves"? If individual awareness lends itself to stellar comparison, what potential pathways and conditions can be reviewed?

The stellar metaphor has been exploited with respect to the development of groups as well as individual creativity -- as separately detailed (*Living in the light of stellar metaphors of brilliance*, 2013). A justification is to be found in the very common use of "brilliant" and its association with "stars" in every domain of society -- whether media, sporting or academic celebrities. Each may "evolve" along a career path -- typically terminating in a manner recalling the final phases of stellar evolution. What is to be concluded from such qualitative equivalence -- if only about the human mind?

Such an imaginative exploration may be further extended beyond association of awareness with a "solar perspective" -- with its orbiting "planets". It could be argued that, in encompassing the universe with astrophysical models and insight, astrophysicists have enabled individuals to acquire "dominion" over the universe as a whole -- appropriated "within". Several approaches to this possibility have been articulated separately (*Being the Universe: a Metaphoric Frontier -- Co-existent Immanence of Evolutionary Phases*, 1999; *Eliciting a Universe of Meaning -- within a global information society of fragmenting knowledge and relationships*, 2013)

This is consistent to a degree with traditional engagement with visible constellations. Why should individuals be constrained as local inhabitants of a universe whose scope is constantly under imaginative reframing by astrophysics -- extending to a multiplicity of universes, namely a multiverse? How then should individual awareness presume to engage with a multiverse, as might be speculatively explored (*Being a Poem in the Making: engendering a multiverse through musing*, 2012)? Travel around it might be variously envisaged (*Noonautics: Four modes of travelling and navigating the knowledge "universe"?* 2006).

Ignorance "without" as re-cognized "within"

Any random use of a web search engine -- or a visit to a large bookshop -- makes evident the number of things of which one is unaware or profoundly ignorant. The knowledge universe to which one is exposed "without" appears to be characterized by ever increasing domains of ignorance. There is every reason to suspect that there are further realms of which one is not even aware -- according to the "poem" notoriously presented by [Donald Rumsfeld](#) as US Secretary of Defense in February 2002, and discussed separately (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008):

*There are known knowns;
there are things we know that we know.
There are known unknowns; that is to say,
there are things that we now know we don't know.
But there are also unknown unknowns -
there are things we do not know we don't know.*

How then to engage personally with an exponential increase of ignorance with regard to the universe "without"? In the light of the above

argument, to what does it correspond in the universe "within"?

The perspective "without" can conveniently associate such ignorance with the most distant objects in the universe of knowledge -- distant "stars" and even more distant "galaxies". The sense of a "knowledge universe" offers many clues in this respect (*Towards an Astrophysics of the Knowledge Universe: from astronautics to noonautics?* 2006). The section there on *Cognitive engagement* addresses the issue specifically. Clearly there are distant "stars" to whose brilliance others are exposed, offering guidance in their endeavours -- of whom one has little or no awareness. This is only too evident in the case of many academic disciplines and forms of creativity.

There are obviously psychosocial "worlds" inhabited "out there" by individuals leading lives of which one is not aware, as discussed separately with respect to development of the internet (*Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society*, 2004) and recently otherwise confirmed, notably with respect to search engine filter bubbles (Ethan Zuckerman, *Rewire: Digital Cosmopolitans in the Age of Connection*, 2013; Eli Pariser, *The Filter Bubble: what the internet is hiding from you*, 2011).

Following the disclosures regarding the *mass electronic surveillance* by intelligence agencies, the current situation might even be imaginatively caricatured as corresponding to the attack on human colonies by the cybernetic *Cylons* of the *Battlestar Galactica* TV series. This obliged scattered human survivors to flee that tyranny into outer space aboard a "ragtag, fugitive fleet, on a lonely quest -- for a shining planet known as Earth". There are however many such "ragtag" groups "fleeing" across knowledge space, each under the protection and guidance of their respective methodological "Battlestars" -- as the embodiment of the values they believe they have already "found" (religions, philosophies, ideologies, etc), and endeavour to inculcate as an exclusive worldview.

Curiously, in their quest for "Planet Earth" and the security and coherence it purportedly offers, each such group is seemingly in deliberate ignorance of the existence of others and of the manner in which their trajectories together interweave to trace out the songlines of the noosphere (*From Information Highways to Songlines of the Noosphere: global configuration of hypertext pathways as a prerequisite for meaningful collective transformation*, 1996).

Knowledge engendered anywhere then necessarily ensures the relative increase in ignorance elsewhere within the universe of knowledge -- since the possibilities of communicating it meaningfully are questionable. For the individual this implies a challenge of both incomprehension and of partial comprehension (*Living with Incomprehension and Uncertainty: re-cognizing the varieties of non-comprehension and misunderstanding*, 2012; *Towards the Dynamic Art of Partial Comprehension*, 2012). The situation becomes especially apparent through any exposure to communication with such distant realms. It is typically meaningless -- and readily held to be totally irrelevant. There is nothing that can be said of any significance. Meaning does not travel across those distances -- however the technology of communications creates the sense that this is possible.

Potentially more intriguing is envisaging a correspondence between a universe of knowledge -- so mis-understood "without" -- and a "university of ignorance", potentially to be understood as "within", even as characterizing an individual (*University of Ignorance: engaging with nothing, the unknown, the incomprehensible, and the unsaid*, 2013)

This recognition suggests that "nothing" (with "ignorance") is potentially of some kind of profound significance in its own right, as separately argued (*Emerging Significance of Nothing*, 2012). It is intriguing to note that astrophysics now accords particular significance to nothing in relation to the creation of the universe "without" (Lawrence M. Krauss, *A Universe from Nothing: why there is something rather than nothing*, 2012). Of further interest is the assertion regarding the preponderance of "dark matter" and "dark energy" in the universe "without" -- about which "nothing" is known. These cannot be directly detected; their existence can only be inferred -- reminiscent of arguments relating to the *collective unconscious* or to the *unconscious mind* of the individual, and their civilizational implications (John Ralston Saul, *The Unconscious Civilization*, 1995).

Given the significance accorded to this framing "without", it might then be asked whether and how this might correspond to a condition "within". For many a profound sense of "nothing" is now a characteristic of their lives -- lacking any sense of meaning or prospect for the future. They recognize that they have "nothing" and that society offers them "nothing essential" -- whether or not this includes the essentials of life. Curiously, given the ready recognition of "irrelevance", it might be asked whether further significance is to be sought in the phrase "nothing matters", as separately considered (*Where There is No Time and Nothing Matters*, 2008). Is there some strange correspondence with "dark matter"? Is there a case for exploring the "mattering of nothing" (*Import of Nothingness and Emptiness through Happening and Mattering*, 2008).

For many, with or without a livelihood, the condition is compounded by having "nothing" to do -- an overriding sense of boredom. This is most evident in later years, perhaps ensconced in a "home" after retirement -- but the condition is experienced by the young unemployed and by those variously incarcerated (imprisoned, in refugee camps, etc.). Hence the recourse to drugs (*Enstoring through Imagination, Dreams, Drugs and Imbibing*, 2012). This situation would indeed seem to correspond curiously to the preponderance of "dark matter" and "dark energy" -- especially since it is so readily ignored by those with any claim to knowledge and a normal life.

The situation may be framed otherwise by poets, such as Omar Khayyam:

*And if the Wine you drink, the Lip you press,
End in the Nothing all Things end in -- Yes --
Then fancy while Thou art, Thou art but what
Thou shalt be -- Nothing -- Thou shalt not be less.*

The challenge "within" is evident from the manner in which "nothing" is experienced -- perhaps to be framed as a sense of "pointlessness", by which some may be driven to suicide, in curious correspondence to the ending of the universe "without", as envisaged by astrophysics. Other possibilities are discussed separately (*Way Round Cognitive Ground Zero and Pointlessness: embodying the geometry of fundamental cognitive dynamics*, 2012). The cultivation of "emptiness" is of course a theme of some Eastern

spiritual disciplines, whereby "something" is itself framed as illusory.

Conclusion

The above argument raises the question as to how radical individual awareness is entitled to be in the present context -- notably with regard to such "externalities" as "Afghanistan", "Taliban", "terrorism", "NSA/PRISM", "public debt", "poverty", "slavery", "disinformation", etc., as separately suggested (*Looking in the Mirror -- at Josef Fritzl ? Global conditions on reflection*, 2009). A relevant insight is offered by [Kenneth Boulding](#):

Our consciousness of the unity of the self in the middle of a vast complexity of images or material structures is at least a suitable metaphor for the unity of a group, organization, department, discipline, or science. If personification is only a metaphor, let us not despise metaphors -- we might be one ourselves. (*Ecodynamics; a new theory of societal evolution*, 1978, p. 345)

To what extent does conventional thinking effectively ensure a form of imprisonment in a system of categories -- bearing some comparison to a "Guantanamo Bay" from which freedom is ever promised and never achieved?

A degree of attention is now being accorded to "embodiment of the mind" from the perspective of cognitive psychology ([George Lakoff](#) and [Mark Johnson](#), *Philosophy In The Flesh: the embodied mind and its challenge to Western thought*, 1999). Separately related insights have been developed by Mark Johnson (*The Meaning of the Body: aesthetics of human understanding*, 2007; *The Body in the Mind: the bodily basis of meaning, imagination, and reason*, 1987). The argument above stresses the complementary sense of "enminding the body", as previously discussed (*Existential Embodiment of Externalities: radical cognitive engagement with environmental categories and disciplines*, 2009). Both senses challenge the conventional focus on "incorporation" fundamental to social undertakings.

The ongoing explorations of the universe "without" by civilization can then be fruitfully compared -- as being "within" -- in accord with the analogy to mountain climbing developed in the classic novel by [René Daumal](#) (*Mount Analogue: a novel of symbolically authentic non-Euclidean adventures in mountain climbing*, 1959). Of particular interest with respect to the problems "without" is whether additional leverage in response to them is offered by their framing as "within" -- whether for the individual or any collective initiative.

Life in densely populated urban environments is associated with a phenomenon that goes readily unrecognized, namely [light pollution](#). This effectively obscures any view of the stars as available in the desert or on mountain tops. There is every possibility of a cognitive equivalent -- justifying the isolation chosen by hermits. How then to engage with the stars of the cognitive universe?

References

Dan Ariely:

- Predictably Irrational: the hidden forces that shape our decisions. HarperCollins, 2008
- The Upside of Irrationality: the unexpected benefits of defying logic at work and at home. Harper, 2010

Kenneth Boulding:

- Ecodynamics; a new theory of societal evolution. Sage, 1978
- The Image: knowledge in life and society. University of Michigan Press, 1956

Joseph Campbell. The Inner Reaches of Outer Space: metaphor as myth and as religion. Alfred van der Marck Editions, 1986

René Daumal. Mount Analogue: a novel of symbolically authentic non-Euclidean adventures in mountain climbing. Stuart, 1959
[\[summary\]](#)

Erik Davis. TechGnosis: myth, magic, and mysticism in the Age of Information. Harmony Books, 1998

J. J. A. Demissen, et al. The Effects of Weather on Daily Mood: a multilevel approach. *Emotion*, 8, 2008, 5, pp. 662-667

Daniel Dervin:

- Creativity and Culture: a psychoanalytic study of the creative process in the arts, sciences, and culture. Fairleigh Dickinson University Press, 1990.
- A "Strange Sapience": the creative Imagination of D.H. Lawrence. University of Massachusetts Press, 1984

Veronica Goodchild. Songlines of the Soul: pathways to a new vision for a new century. Ibis Press, 2012

Charles Handy. The Age of Unreason. Harvard Business Review Press, 1991

Stephen Hawking (Ed.). The Dreams That Stuff Is Made Of: the most astounding papers of quantum physics--and how they shook the scientific world, Running Press, 2011

Jeffrey Haynes. Faith-based Organisations at the United Nations. Robert Schuman Centre for Advanced Studies, 2013 [\[text\]](#)

Reid Helford. Constructing Nature as Constructing Science. In: Paul Gobster and Bruce Hull (Eds.), *Restoring Nature*, IslandPress, 2000, pp. 119-143

Iina Hellsten. The Politics of Metaphor: biotechnology and biodiversity in the media. Tampere University Press, 2002

Mark Johnson:

- The Meaning of the Body: aesthetics of human understanding. University of Chicago Press, 2007
- The Body in the Mind: the bodily basis of meaning, imagination, and reason. University of Chicago Press, 1987.

Carl Gustav Jung and Wolfgang Ernst Pauli. The Interpretation of Nature and the Psyche. Ishi Press, 2012

Matthew C. Keller, et al. A Warm Heart and a Clear Head: the contingent effects of weather on mood and cognition. *Psychological Science*, 16, 2005, 9, pp. 724-731 [[summary](#)]

Jozef Keulartz. Using Metaphors in Restoring Nature. *Nature and Culture*, 2, 2007, 1, pp. 27-48 [[abstract](#)]

Alexander King and Bertrand Schneider. The First Global Revolution: a report by the Council of the Club of Rome. Pantheon, 1991 [[summary](#)]

Lawrence M. Krauss. A Universe from Nothing: why there is something rather than nothing. Free Press, 2012

George Lakoff and Mark Johnson. Philosophy in the Flesh: the embodied mind and its challenge to Western thought. Basic Books, 1999

George Lakoff and Rafael Núñez. Where Mathematics Comes From: how the embodied mind brings mathematics into being. Basic Books, 2001

Ervin László, et al. Goals for Mankind: On the New Horizons of Global Community. New American Library / Signet / Hutchinson, 1977 [[summary](#)]

Ervin László and Judah Bierman. Goals in a Global Community: The Original Background Papers for Goals for Mankind. Pergamon, 1977

Joel Levy. Scientific Feuds: from Galileo to the Human Genome Project. 2010

David Lindorff. Pauli and Jung: the meeting of two great minds. Quest Books, 2004

James Lovelock:

- The Vanishing Face of Gaia: a final warning: enjoy it while you can. Allen Lane, 2009
- The Revenge of Gaia: why the Earth is fighting back - and how we can still save humanity. Allen Lane, 2006

Marc Luyckx. The EU and Islam: the role of religion in the emerging European polity. *Cambridge Review of International Affairs*, 13, 2000, 2, pp. 267-282 [[abstract](#)]

Arthur I. Miller. 137: Jung, Pauli, and the Pursuit of a Scientific Obsession. W. W. Norton, 2010

Eleonora Montuschi:

- Order of man, order of nature: Francis Bacon's idea of a 'dominion' over nature. LSE Workshop on The Governance of Nature, 2010 [[text](#)]
- Rethinking objectivity in social science. *Social Epistemology*, 18, 2004, 2-3, pp. 109-122 [[abstract](#)]
- The Objects of Social Science. Continuum, 2003

Thomas Moore:

- The Planets Within: the astrological psychology of Marsilio Ficino. Lindisfarne Books, 1990
- Original Self: living with paradox and originality. Harper Perennial, 2001

Sten F. Odenwald. Patterns in the Void: why nothing is important. Westview, 2002

Etienne Oehmichen. Nos maîtres les oiseaux: étude sur le vol animal et la récupération de l'énergie dans les fluides. Dunod, 1920

Eli Pariser. The Filter Bubble: what the internet is hiding from you. Penguin Press, 2011

Sean Patrick. Nikola Tesla: imagination and the man that invented the 20th Century. Oculus Publishers, 2013

Robert Romanyshyn:

- Technology as Symptom and Dream. Routledge, 1989
- The Wounded Researcher: research with soul in mind. Spring Journal Books, 2007
- Mirror and Metaphor: images and stories of psychological life. Trivium Publications, 2001

Remo F. Roth. Return of the World Soul: Wolfgang Pauli, C.G. Jung and the challenge of psychophysical reality. Pari Publishing, 2011

John Ralston Saul. The Unconscious Civilization. House of Anansi, 1995

Donald Schön. Generative Metaphor: a perspective on problem-setting in social policy. In: A. Ortony (Ed.), *Metaphor and Thought*, Cambridge University Press, 1979, pp. 254-284

Donald Schön and Martin Rein. Frame Reflection. Basic Books, 1994

Henryk Skolimowski. The Participatory Mind: a new theory of knowledge and of the universe. Penguin/Arkana, 1994

John H. Simpson. Varieties of Imagination and Nothingness in the Global Village. *Canadian Journal of Sociology*, 28, 2003, 2, pp. 235-244 [[text](#)]

Garrison Sposito. Does a generalized Heisenberg Principle operate in the social sciences? *Inquiry*, 12, 1969, 3, pp. 356-261 [[abstract](#)]

Alan E. Stewart. Psychological Perspectives on Adaptation to Weather and Climate. In: Kristie L. Ebi (Ed.), *Biometeorology for*

Adaptation to Climate Variability and Change, Springer, 2009 [[text](#)]

Stuart Sutherland. Irrationality. Rutgers University Press, 1994

Marie-Louise von Franz. Alchemical Active Imagination. Shambhala, 1997

Vernon Wells. Tempering Heaven: a commentary on the first chapter of Marsilio Ficino's *De vita coelitus comparanda*. Dissertation, 2010 [[text](#)]

Arthur M. Young:

- The Geometry of Meaning. Delacorte Press, 1976
- The Reflexive Universe: evolution of consciousness. Anodos Foundation, 1976 [[excerpt](#)]
- The Bell Notes: A Journey from Physics to Metaphysics. Delacorte Press / Seymour Lawrence, 1979

Ethan Zuckerman. Rewire: Digital Cosmopolitans in the Age of Connection. W. W. Norton, 2013



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