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Infertility as a Metaphor Heralding Global Collapse

Essential impotence disguised by performance and "being great again"

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Introduction

Erectile dysfunction? An increasingly prominent feature of national politics and identity is the promise of "being great again", as variously evident. This is most notable in the nation already esteemed as the most powerful on the planet (Jacob S. Hacker, *Making America Great Again*, *Foreign Affairs*, May/June 2016; Phillip Lohaus, *Make Foreign Policy Great Again*, *US News*, 9 February 2017; *How Donald Trump came up with 'Make America Great Again'*, *Stuff*, 19 January 2017). This slogan has also been taken up in Great Britain, France, and elsewhere. Its use is naturally reinforced by the fear that other countries may also seek to become "great again" -- as with Russia and China. The possibility has been evoked with respect to the United Nations and to Europe (Scott Monje, *Making the UN Great Again?* *Foreign Policy Association*, 1 March 2018; Aamna Mohdin, *Far-right European politicians are talking about "making Europe great again"*, *Quartz*, 26 January 2017).

In Freudian terms, this aspiration, together with the enthusiasm it engenders, readily lends itself to comparison with widespread preoccupation with male [erectile dysfunction](#) and the challenge of "getting it up". This has resulted in the quest for [aphrodisiacs](#), whether supplied by the pharmaceutical industry or through acquisition of portions of the anatomy of endangered wild animals -- considered essentially vigorous and esteemed as symbols of potency.

However the concern with "being great again" plays out even more evidently in the acquisition of ever more powerful weaponry -- and hence the widespread manufacture, sale and purchase of armaments as a major proportion of national GDP. More personally, in some cultures, this takes the form of acquisition of "guns" or, failing that, "knives" of some kind. This may well be framed in terms of traditional cultural values. Much is made of the proportion of weapons owned by citizens of the USA, for example -- together with a belief in the "[right-to-carry](#)" (whether visibly or not) and upholding "[standing-your-ground](#)" as a right.

Another manifestation of "being great again" is the competitive construction of ever [taller buildings](#) -- with the tallest readily framed and appreciated as the embodiment of national prestige, as with the Eiffel Tower, the Empire State Building, and the like ([List of tallest buildings in the world](#)). Perceived architecturally as "important", they echo the appreciation of taller people -- even to be understood in terms of "standing tall", if not "being tall again". Height is readily associated with success. National leaders may follow the practice of many women by using high-heeled shoes to enhance that impression. Shortness may be subtly deprecated.

An associated manifestation is evident in the competitive efforts to "get into orbit", to "land on the moon", or to establish a colony on Mars -- if not transporting humanity to exoplanets of other solar systems. These exercises in techno-optimism are readily to be recognized as exercises in mass distraction ([Challenges More Difficult for Science than Going to Mars](#), 2014; [Destructive Weapons of Mass Distraction Versus Distractive Weapons of Mass Destruction](#), 2003).

Impotence and infertility? These physical preoccupations disguise a more subtle dimension of impotence, namely that of [infertility](#) -- and its implications as a more fundamental metaphor in its own right. An obvious example is provided by the capacity to "win wars" through the domination of others, whilst being essentially dysfunctional with respect to "peace building", as so tragically illustrated in the case of the incapacity of the [Coalition of the Willing](#) in relation to Iraq. Despite the manifestation of "will", fruitful follow-through has been demonstrably ineffectual in the Middle East. As with "fucking capacity", potency is clearly no guarantee of fertility. The issue is

well illustrated by [James Hillman](#) and [Michael Ventura](#) (*We've Had a Hundred Years of Psychotherapy -- And the World's Getting Worse*, 1992).

It is in this sense that human biological infertility merits exploration as a metaphor of psychosocial infertility, thereby offering insight into some form of civilizational collapse. In communication terms, is the decreasing "quality of sperm" (for example) resulting in an increasingly constrained capacity for psychosocial reproduction -- disguised by population growth and the phenomena noted above? Most evidently, this can be explored in terms of the contrast between the explosion of information exchange and the relatively unfruitful "global" uptake of the remarkable "local" generation of creative insight worldwide. This is most evident in the case of governance, whether at the global, national or community level -- not to mention any equivalent to the challenges of individual self-governance.

Curiously it can be argued that the promotion of contraception and abortion is echoed by dependence on a form of "conceptual contraception" and "cognitive abortion" in an unexamined quest for individual freedom -- and thereby condemned to a strange form of sterility.

In terms of viable psychosocial reproduction, there is therefore a case for recognizing a fatal perversity to the insight of [Gregory Bateson](#) in concluding a conference on the effects of conscious purpose on human adaptation: *We are our own metaphor* (Catherine Bateson, *Our Own Metaphor*, 1972, p. 304).

Fading sense of hope? Especially relevant to this argument is the complex of studies of the movie interpretation of a dystopian novel by [P. D. James](#) (*The Children of Men*, 1992) exploring the implications of a global sterility crisis. The movie of that title (*Children of Men*, 2006) was directed by [Alfonso Cuarón](#). Commentary focuses on his inspiration that the premise of infertility in the book could serve as a metaphor of global significance for the "*fading sense of hope that humanity has today*" (*Alfonso Cuarón... searches for hope in "Children of Men"*, *The Seattle Times*, 22 December 2006). The DVD edition of the movie also includes a documentary (Alfonso Cuarón, *The Possibility of Hope*, 2007). This features a commentary by [Slavoj Žižek](#) who sees it as the best diagnosis of the ideological despair of a society without history, as he has otherwise argued (*Living in the End Times*, 2011). Žižek's analysis of the movie, there and elsewhere, has itself evoked further commentary (Gregory Wolmart, *On Anamorphic Adaptations and the Children of Men*, *International Journal of Žižek Studies*, 11, 2017, 2).

Both the novel and the movie are part of the [Dying Earth subgenre of science fiction](#) which has occasionally explored implications of the "last child" born in a context of global infertility. Written in the aftermath of the [Reign of Terror](#) of the French revolution and the violence of the Napoleonic wars, the earliest example of the theme is held to have initiated speculative fiction depicting the end of the world ([Jean-Baptiste Cousin de Grainville](#), *Le Dernier Homme*, 1805, as translated by [I. F. Clarke](#), *The Last Man*, 2003)..

Renaissance? Understood otherwise, is the current cognitive preoccupation with "global" to be usefully compared with the attraction of the sperm for the ovum towards which it desperately and competitively strives? Is society now incapable of renewing itself, as variously framed by the optimistic possibility of a new Renaissance? (*Challenges of Renaissance: suggestive pattern of concerns in the light of the birth metaphor*, 2003; *Missing the New Renaissance?* 2010; David Lorimer and Oliver Robinson (Eds.), *A New Renaissance: transforming science, spirit and society*, 2010).

If global society is increasingly incapable of "global conception" -- psychosocially understood -- how might the "last insight" of fruitfully transformative global significance be explored? Perhaps inspired by the tradition of *haiku death poems* of Zen monks -- or in song (*Songs of the Dying Earth*, 2009) ?

Systemic denial of global psychosocial infertility

The extent of infertility has only recently been recognized as a problem of human physiology ([Lyman Stone](#), *America's looming fertility collapse*, *The Boston Globe*, 8 December 2017; [Robin McKie](#), *The infertility crisis is beyond doubt*, *The Guardian*, 30 July 2017). The latter notes that that sperm counts in western men have halved, confirming what experts already knew; the real problem is that no one knows why. The concern here is that psychosocial infertility may constitute an even greater challenge.

Cueiously it may prove to be the case that development, as currently conceived and practiced, induces infertility. The associated question is, however, whether it induces some form of depression -- given the level of medication and psychoactive drugs on which increasing numbers of people depend (*Some 300 million people suffer from depression*, *UN News*, 31 March 2017; *Depression is leading cause of disability worldwide, says WHO study*, *The Guardian*, 31 March 2017; *Nearly 60 percent of Americans... are taking prescription drugs*, *The Washington Post*, 3 November 2015; *1 in 6 Americans Takes a Psychiatric Drug*, *Scientific American*, 13 December 2016). Such medication may in turn induce infertility -- both in biological and psychosocial terms (*Cognitive Implications of Lifestyle Diseases of Rich and Poor*, 2010).

Cultivation of the myth of competition engendering fertile outcome: It is readily assumed, most notably as being fundamental to economic policy, that competition is the primary guarantor of creative innovation -- and thus of psychosocial fertility. Having been enabled by many means in many countries, it is now increasingly clear that the outcome of such competition for global society is less than fruitful for all concerned, despite vigorous denial of any such conclusion by those who benefit from it. The widely documented increase in levels of human inequality is ignored as effectively irrelevant.

The cultivation of the merits of competition is especially evident in sports and games of various kinds -- especially through the Freudian implications of "scoring". These echo the celebration of military conquest and the quest for [strategic dominance](#), [full-spectrum dominance](#) and [hegemony](#). It is far from being proven that these commitments engender psychosocial fertility. although achievement of "high impact" may be framed as "fruitful" in contrast to what is assumed to be the "unfruitful" nature of "low impact".

The pattern of competition as framed can be interpreted as deriving instinctively from the evolutionary origins of humanity with the competition amongst sperm to fertilize the ovum. The widespread quest to be "Number 1" -- for champions and heroic conquest -- then

exemplifies that of "top sperm", implying most appropriate meme.

Conventional appreciation of this pattern is extensively undermined at this time by widespread recourse to cheating, fraud, blackmail and doping -- whether between corporations or within sports. However vigorously denied, this dependence suggest an unconscious recognition of psychosocial infertility, even in global terms ([John Ralston Saul, *The Unconscious Civilization*, 1995](#)).

Failure of "intentional communities"?: Readily understood as exemplifying psychosocial fertility, much is made of the manner in which they enable collective creative potential. Frequent reference is made to their success -- potentially exemplifying such fertility. Rather than framing psychosocial collapse in terms of a **global** (non-local) framework, it could instead be claimed that psychosocial fertility is inherently **local**. This argument extends to understandings of **collective intelligence** which may well be of a primarily local nature rather than necessarily viable at the global level.

Unfortunately, as with the enthusiastic promotion of for-profit start-ups, relatively little is said of the failure rate of intentional communities, or the breakdown of such promising initiatives -- undertaken with such enthusiasm and commitment. This has been the theme of the research of [Félix Guatteri](#):

No matter how communal the initial struggle, sooner or later the collective will dissolved into a competition between individual desires - with one person eventually emerging as the leader, at the expense of the others. Why do collaborations always collapse into hierarchies, he asked himself? Why does the group get atomised, rather than retaining a unified voice? (Edward Thornton, *Two's a Crowd, Aeon*).

It is now highly uncertain what mode of community organization constitutes an unquestionable demonstration of replicable psychosocial fertility for the longer term. This conclusion could be challenged in the light of the blossoming multiplicity of "communities" engendered via the internet and social media -- then to be recognized as "intentional", but otherwise. These may indeed ensure an appreciable degree of creative community among the self-selected -- to be recognized as "local" in a non-geographical sense. Such communities are however systemically dissociated from each other in a sense of "global" intentionality ([Dynamically Gated Conceptual Communities: emergent patterns of isolation within knowledge society](#), 2004; David Brooks, *The Blindness of Social Wealth, The New York Times*, 16 April 2018).

This argument acquires greater focus in the light of the so-called **filter bubbles** which form the interface of many such communities with a knowledge-based society ([Eli Pariser, *The Filter Bubble: what the internet is hiding from you*, 2011](#)). This metaphor of "epistemic bubbles" is complemented by that of the **"echo chamber"** within which each such community then functions, as remarkably argued by [C Thi Nguyen \(*Escape the echo chamber, Aeon*, April 2018\)](#):

Something has gone wrong with the flow of information. It's not just that different people are drawing subtly different conclusions from the same evidence. It seems like different intellectual communities no longer share basic foundational beliefs. Maybe nobody cares about the truth anymore, as some have started to worry. Maybe political allegiance has replaced basic reasoning skills. Maybe we've all become trapped in echo chambers of our own making -- wrapping ourselves in an intellectually impenetrable layer of likeminded friends and web pages and social media feeds... Where an epistemic bubble merely omits contrary views, an echo chamber brings its members to actively distrust outsiders.

That argument highlights the sense in which an echo chamber entraps those it encompasses in a manner analogous to that of a cult. A cult isolates its members by actively alienating them from any outside sources, with those outside actively labelled as malignant and untrustworthy. A cult member's trust is narrowed, aimed with laser-like focus on certain insider voices. So framed this raises the question of enculturation in any global sense of relevance to psychosocial fertility.

Cultural creativity? Claims of cultural "fertility" are of course widely made through highlighting many examples of creativity, notably as a characteristic of distinctive national identity. Such claims are most evident in the promotion of tourism and recognition of [European Capitals of Culture](#) by the European Union. Related recognition is accorded to excellence, as with the [Centres of Excellence](#) of the European Commission. These may take other forms through [technopoles](#), [business incubators](#), and schools of advanced studies. Creativity in design in many fields may be similarly recognized and awarded. The associated cultural aptitude may be acknowledged as characteristic of "cultural creatives" (Paul H. Ray and Sherry Ruth Anderson, *The Cultural Creatives: how 50 million people are changing the world*, 2000).

Should such counter-claims protesting high fertility in cultural terms be challenged as somewhat frantic and superficial -- as famously suggested in Shakespeare's *Hamlet: The lady doth protest too much, methinks* ? In contrast with the evidence of ever increasing global population, is there a sense that this quantitative increase obscures a qualitative diminution in fertility?

Declining IQ and dumbing down: The issues are potentially analogous to replication of the [bread and circuses](#) of the Roman Empire and the [dumbing down](#) characteristic of global media (Richard Lynn, *The Decline of the World's IQ, Intelligence*, 36, 2008, 2, pp. 112-120; Sol Palha, *Why are IQ's Dropping On A WorldWide basis, The Huffington Post*, 30 August 2017; R. Flynn and Michael Shayer, *IQ decline and Piaget: Does the rot start at the top? Intelligence*, 66, 2018, January-February, pp. 112-121).

Despite the much-acclaimed innovation in information technology, concerns are increasingly voiced regarding the quality of the social transformation thereby engendered -- in contrast with perverse forms of isolation thereby enabled ([Sherry Turkle, *Alone Together: why we expect more from technology and less from each other*, 2017](#); [Social media is ripping society apart, The Guardian](#), 12 December 2017). "Recreation" is also too readily seen as implying creativity -- as may well be the case with "recognition", but to a lesser degree.

Environmental infertility: Any reference to semen, as a metaphor for the seed-like nature of [cultural memes](#) (as channelled through an

information-based society), merits recognition in terms of the biblical parable regarding [seeds falling on stony ground](#):

Hearken; Behold, there went out a sower to sow: And it came to pass, as he sowed, some fell by the way side, and the fowls of the air came and devoured it up. And some fell on stony ground, where it had not much earth; and immediately it sprang up, because it had no depth of earth: But when the sun was up, it was scorched; and because it had no root, it withered away. And some fell among thorns, and the thorns grew up, and choked it, and it yielded no fruit. And other fell on good ground, and did yield fruit that sprang up and increased; and brought forth, some thirty, and some sixty, and some an hundred. And he said unto them, He that hath ears to hear, let him hear. (*Mark, 4:3-9*)

The challenge at this time is that the "good ground" is ever-increasingly diminished and "infertile", as illustrated by analogy to [soil contamination](#), [marine debris](#), [air pollution](#), and accumulation of [orbital debris](#) -- with relatively ineffectual remedial capacity. Space enabling globally fruitful creativity is increasingly diminished -- despite vigorous institutional claims to the contrary. The massive extinction of species underway as a consequence of [degradation of habitats](#), and the consequent [loss of biodiversity](#), suggests that this could be a powerful indication of an analogous phenomenon with respect to psychosocial fertility. If the tweeting enabled by Twitter is to be cited as a counter-argument -- as an example of fertility through the massive production of "memetic seeds" -- the question is what proportion of these seeds effectively "take", and what proportion fall on "stony ground"?

Constrained attention capacity: Similarly it can be argued that the information system is becoming evermore polluted with [factoids](#), [fake news](#), and the like -- constraining the capacity for qualitative attention, caricatured as a "blip culture" by [Alvin Toffler](#) (*The Third Wave*, 1980).

Just as individuals make desperate efforts to render themselves physically more attractive in the vain quest for meaningful partners, collective initiatives make increasingly desperate efforts in quest of "good ground" for their advertising in order to achieve greater recognition to ensure their viability and fruitfulness (*Investing Attention Essential to Viable Growth*, 2014). Aggravated by information overload, comprehension of global relevance is increasingly constrained by attention capacity, most notably among those responsible for regulatory oversight (*Comprehension of Numbers Challenging Global Civilization*, 2014).

The nature of the problem becomes obvious as every self-defined creative individual and society seeks to persuade the rest of the world of the merits of their insight. The situation then recalls the reproductive challenge of plants and animals in the wild -- each endeavouring to fruitfully position their "seed".

Overcommitment to just-in-time maintenance: Resource constraints, together with the challenge of coordinated organization of a complex society, lead to highly constrained ability to deal with more than the most immediate challenges -- [just-in-time](#) -- as highlighted by strategic responses to the daily news cycle. There is little space for any longer-term perspective, even if desired, despite marketing of such possibilities of quality time in occasional gatherings. Are the gatherings of the Global Economic Forum and the Club of Rome renowned for their creativity?

The shock of the predicted "crisis of crises" could then usefully be recognized as a crisis of infertility -- in psychosocial terms. Ironically the distinction between "shock learning" and "maintenance learning" was highlighted in an early report to the Club of Rome, as separately discussed (*Societal Learning and the Erosion of Collective Memory*, 1980).

Suppression of collective history: Whether as deliberate censorship, or as a policy of negligence and denial, tragic historical events may be suppressed from public discourse in some way. Where learning from them is of significance to a more creative response to the conditions which engender them, this inhibits such learning and the emergence of more coherent and comprehensive understanding within society, as discussed separately (*Symbolizing Collective Remembering Otherwise*, 2018). As noted by [George Santayana](#): *Those who cannot remember the past are condemned to repeat it.*

Questionable impact of artificial intelligence: It is readily assumed by techno-optimists and transhumanists that any global civilization will be fundamentally reframed by the anticipated [technological singularity](#). This is upheld as of ever increasing credibility, given the increasing role of artificial intelligence and is enabling functions envisaged for the global coherence of humanity's future. Arguments to the contrary are set aside, as with the irony of any equivalence of functions previously attributed to deity (*The Consensus Delusion: mysterious attractor undermining global civilization as currently imagined*, 2010).

This optimism is readily challenged by techno-pessimists and their exploration of dystopian scenarios. More concretely, in a period when unemployment is a major issue for many, the predicted displacement of conventional jobs by AI, and its impact on global civilization, has yet to be addressed (*Workers at risk as robots set to replace 66m jobs, warns OECD*, *The Guardian*, 3 April 2018; Eric Berger, *Federal report: AI could threaten up to 47 percent of jobs in two decades*, *Ars Technica*, 22 December 2016; *New study shows nearly half of US jobs at risk of computerisation*).

More problematic, and even less evident, is how AI will enable governance at the global level to function more fruitfully -- rather than more disastrously. Such issues can be explored in terms of both the challenging questions which might be addressed by AI, as well the capacity of AI to recognize the potential for systemic failure (*Superquestions for Supercomputers*, 2010; *Variety of System Failures Engendered by Negligent Distinctions*, 2016). Superior to humans in game-playing as AI has recently proven to be, it is however improbable that AI will be empowered to formulate the [deadly questions](#) vital to the future of humanity, as separately discussed (*World Futures Conference as Catastrophic Question*, 2013). Given the above-mentioned fictional exploration of the "last child" under conditions of global sterility, it is intriguing to note an early exploration of sterile society governed by the "last AI" ([Philip K. Dick](#) (*The Last of the Masters*, 1954).

Dependence on "supernatural" intervention? For many, the accumulating dysfunctionalities of global society are only to be welcomed as anticipating "supernatural" intervention, whether by deity (as variously prophesied) or by extraterrestrials (beneficent or

otherwise). Such psychosocial dependency on a "supernatural singularity" could however be seen as an abdication of responsibility equivalent to reliance on the superior intelligence of AI. However anticipated this constitutes a systemic denial of the potentially painful nature of the associated collapse of the conventional worldview (*Pricking the Bubble of Global Complacent Complicity*, 2017).

Psychosocial implications of infertility as a metaphor

There are a number of studies of the metaphors through which the personally sensitive infertility can be comprehended (as indicated in the references below). The question here however, as with the movie interpretation of *The Children of Men*, is how infertility offers a metaphor through which to explore the challenges to hope. Of some value in bridging between "**metaphors of infertility**" and "**infertility as a metaphor**" is the study from a Christian religious perspective by [Karl A. Schultz](#) (*Bearing the Unbearable: coping with infertility and other profound suffering*, 2007).

[This] wrestles with two of life's most painful realities, the loss or diminishment of hope and the inability of human beings to fulfill their vocation, potential, and dreams. We will focus on perhaps the most poignant cause of this, infertility, but our discussion will include other major obstacles to fulfillment.... We will integrate western civilization's most famous infertility stories, those from the Bible, and particularly the Old Testament, with contemporary stories and your own.

The language of biological infertility offers multiple lenses and frames through which to explore its psychosocial analogue, as argued otherwise (*Flowering of Civilization -- Deflowering of Culture*, 2014).

Systematically engendered environmental inhibitors: In addition to the forms of denial indicated above, of particular relevance are the conditions for infertility now engendered in the environment together with their psychosocial implications (*Cognitive Implications of Lifestyle Diseases of Rich and Poor: transforming personal entanglement with the natural environment*, 2010). These include:

- **poisoning from nuclear radiation:** as widely documented -- but with the potential long-term implications of other forms of **electromagnetic radiation**. Most obvious in this respect is that associated with the many conditions of internet access, however controversial the conclusions of the many studies. In this respect it is appropriate to recall the negligence with which the dangers of emissions from automobiles and factories were set aside over the past decades and the deliberate institutional delays in their recognition.
- **impact on fertility of endocrine disruptors:** These disruptions can cause cancerous tumors, birth defects, and other developmental disorders, including gender change and infertility
- **psychic numbing:** namely the tendency for individuals or societies to withdraw attention from past experiences that were traumatic, or from future threats that are perceived to have massive consequences but low probability
- "intellectual pollution" and "cognitive pollution": typically used as a description of forms of comprehension that are deprecated from some other perspective (*Artificial Intelligence as Socio-Cognitive Pollution*, 2016; *Neuroscience as Socio-Cognitive Pollution*, 2014). Such deprecation would notably feature in perceptions of alternative worldviews, disciplines, religions and ideologies (Alex Krupp, *How intellectual pollution has crippled America's children*, *Sensemaking*, June 2009; David H. Ost, *Intellectual Pollution*). Variants are recognized (Connor Gibson, *Academic Pollution: Greenpeace traces Koch money on campus*, *Greenpeace*, 17 September 2014).
- "ideological pollution" and "spiritual pollution": presumably typical of perceptions of opposing political parties, notably as articulated within China (Yue Ping, *Preventing Ideological Pollution*, *Beijing Review*, 1983, 47; *Anti-Spiritual Pollution Campaign*)

In anticipation of a more fruitful articulation, the following checklist invites reflection on collective infertility -- in the light of the articulation offered by entries in *Wikipedia*, for example. Further articulation is offered by the distinction made between infertility as the lack of fertility and **sterility** as the lack of **fecundity**, namely the actual reproduction rate.

Infertility (Sterility): The obvious distinction between **male infertility** and **female infertility** raises the question of the equivalence in the case of psychosocial infertility -- namely between masculine functions and feminine functions and the manner in which their interplay makes for socio-cultural fertility or sterility:

- **male infertility:** This refers to a male's inability to cause pregnancy in a fertile female. In humans it accounts for 40-50% of infertility. It affects approximately 7% of all men and is commonly due to deficiencies in the **semen** -- with **semen quality** being used as a surrogate measure of male fecundity. The inadequacy of functions distinguished as "masculine" in society could be called into question by these factors. They suggest a language through which the incapacity to engage with "feminine" functions and memes in society could be explored -- as a complement to concerns articulated by feminists. A distinction is made between pre-testicular factors (including substance abuse) and testicular factors (including age, impotence, and prostatitis).
- **female infertility:** This is caused by many sources, including nutrition, diseases, and other malformations of the uterus. Distinctions are made between acquired factors (age, substance abuse, sexually transmitted infections, body weight, eating disorders, and immune infertility), genetic factors, and physiological factors (glandular, ovarian, tubular, uterine, cervical, vaginal). These suggest a variety of distinctions meriting consideration in the case of psychosocial infertility.
- **combined infertility:** This results from situations in which both male and female are infertile -- raising the question as to the nature of social contexts in which both masculine and feminine functions are effectively sterile in nature. Typically caricatured as sterile working environments, bureaucracies might be explored in this light.

- unexplained infertility: It is now argued that in the USA (for example), up to 20% of infertile couples have [unexplained infertility](#). Again this distinction is helpful as an indication that many instances of psychosocial infertility may be currently inexplicable.

In contrast to the conventional diagnosis of infertility in sexual terms, the nature of psychosocial infertility acquires other dimensions in the case of same-sex partnerships and the particular challenges of sexual variety and [transgender people](#), namely those who have a gender identity or gender expression that differs from the conventions of [sexual orientation](#), possibly to be understood as a [third gender](#). Notable in this respect is the range of gender identities in process of recognition (Chris Jager, *The 33 Gender Identities Recognised by the Australian Sex Survey*, *Lifehacker*, 29 July 2016; Rhiannon Williams, *Facebook's 71 gender options come to UK users*, *The Telegraph*, 27 June 2014).

Complicating such issues of [gender identity](#) are the [physical variations](#) of so-called [intersex](#) people -- born with any of several variations in sex characteristics that do not fit the typical definitions for male or female bodies, potentially implying degrees of genital ambiguity. Whether psychological or physical both might be interpreted as framing forms of collective psychosocial fertility and infertility that merit consideration, as discussed separately explored (*Global Civilization through Interweaving Polyamory and Polyanimosity?* 2018).

Sexually transmitted diseases: Given the manner in which fertility may be undermined by the global phenomenon of [sexually transmitted infections](#), there is every reason to use these as a metaphorical framework for exploring analogous cognitive and memetic diseases, as suggested by an earlier exploration (*Memetic and Information Diseases in a Knowledge Society: speculations towards the development of cures and preventive measures*, 2008).

In the light of the example offered by AIDS/HIV, especially intriguing are the pathological implications of certain forms of promiscuity, as could be characterized by particular social groups and disciplines. Given the associated term "zero positive", this offers the particular irony in the case of groups especially concerned with the "positive" ([Barbara Ehrenreich](#), *Smile or Die: how positive thinking fooled America and the world*, 2010). The issue is exemplified by the range of diseases identified by the [Jewish Genetic Disease Consortium](#).

Miscarriages: As indicated earlier, psychosocial infertility may be especially characterized by the high failure rate of intentional communities and collective initiatives. This suggests that the language of ["miscarriage"](#) and ["stillbirth"](#) -- a metaphor already employed -- may be used to explore the global incidence of the psychosocial analogue. Clearly many international initiatives, notably those inspired by the United Nations, can be so framed and are.

Stillbirth is however typically defined as fetal death at or after 20 to 28 weeks of pregnancy -- resulting in a baby born without sign of life. It may be contrasted with miscarriage, namely where the baby is born alive, even if it dies shortly after.

Birth defects: There is an increasing incidence of [birth defects](#) and congenital malformation. This is recognized to be a consequence of increasing levels of environmental pollution's (fetal alcohol exposure, toxic substances, substance abuse, infections, malnutrition, radiation, physical restraint, genetic predisposition). This suggests that the increasing levels of information pollution (as noted above), could be explored as contributing to potentially problematic defects in psychosocial initiatives. Useful distinctions may be derived from any associated [physical disability](#), [intellectual disability](#), or [developmental disability](#).

Especially tragic in the case of the remedial global initiatives (in response to the conditions of society) is evident when their implementation itself results in the unexpected emergence of defects -- as exemplified by the use of [thalidomide](#). This case -- a good idea at the time -- helps to frame the manner in which global initiatives may already be contributing directly to psychosocial infertility.

Questionable enhancements and enabling roles:

- **Conceptual aphrodisiacs?** The degree of dependence on aphrodisiacs in response to impotence was noted above. This raises the question of what can be usefully recognized as a psychosocial analogue. As a metaphor, occasional examples are already evident (*Olympic Legacy: white elephant or economic viagra?* *BBC News*, 13 August 2012; *Doubts surface about economic Viagra*, *MarketWatch*, 28 January 2009; *Political Viagra*, *The Economist*, 29 November 2001; *Fear of foreigners is political Viagra for our limp leaders*, *The Guardian*, 20 October 2016; *Fertility Politics as "Social Viagra"*, *American Anthropologist*, June 2007). What other forms of aphrodisiac are effectively employed in a desperate response to psychosocial infertility?
- **Cognitive surrogates?** Questionable surrogates for psychosocial impotence have been cited above (weapon construction, taller buildings, championships, psychoactive substances, etc). The biological case raises the question of the nature of [surrogate parenthood](#) in the case of any collective psychosocial analogue. That inquiry can be extended to the analogues of [sperm donation](#) ([sperm banks](#)) and [in vitro fertilization](#). Speculation with regard to their psychosocial implications is a theme of science fiction in which the memetic seeds of human culture are carried over light-years to distant exoplanets in order to perpetuate the human race. The question is how the significance of a range of valued social processes is promoted in such a manner as to inhibit any recognition of their unfruitfulness in engendering global psychosocial renewal. It is in this sense that many forms of game-playing can be explored as exercises in cognitive displacement -- whether deliberately or unconsciously.
- **Misleading performance indicators?** Considerable attention is given to performance as a primary criterion of effectiveness. Most obviously this includes economic and financial indicators (GDP, Dow Jones, etc). Performance in academia may be rated in terms of numbers of publications and citations, for example. Great value is placed on "performance" in sexual intercourse. As the latter indicates, the question to be asked is whether performance is necessarily fruitful in engendering outcomes of ultimate value -- rather than illusory substitutes. There is potentially great irony to the frequency of reference of "fucking" as an expletive at all levels of society -- possibly to distract from failures of performance. Highly rated performance may well fail to overcome essential infertility -- as those desiring progeny and a memorable legacy may be only too aware. Aspects of the issue can be explored with respect to various indicators (*Evaluating the Grossness of Gross Domestic Product*, 2016; *Uncritical Strategic*

Dependence on Little-known Metrics: the Gaussian Copula, the Kaya Identity, and what else? 2009; *Remedial Capacity Indicators Versus Performance Indicators*, 1981).

- **Facilitative roles?** In the case of sexual intercourse, recourse may be made to a range of skills to ensure a fruitful outcome. These include gynecology, obstetrics and midwifery -- in addition to those of sexual therapists. Related skills are evident in the case of animal husbandry. Some recall the role of **eunuchs** in preparing women in **harems** for intercourse. Analogues enabling psychosocial fertility could be found in the role of mediators and facilitators -- notably with respect to group dynamics and their facilitation. The manner in which social media platforms propose contacts in the light of algorithmic analysis of profiles could be explored in this light. Given the many questionable initiatives in this regard, it could be asked whether the range of issues effectively addressed in the biological case are as effectively framed in the psychosocial case.
- **Questionable genetic improvement:** Animal husbandry has long framed and developed a preoccupation with **selective breeding** and **animal breeding**, exemplified by choice of stallions and bulls and the related market in semen required for artificial insemination. In the case of humans, the question of "breeding" has long been central to selection of marriage partners and "breeding true", more problematically when the genetic stock is held to be characterized by **in-breeding** and to require improvement through **out-breeding**. Whether in the case of animals or humans, breeding may well be recognized through careful attention to some form of authoritative certification -- if only understood as an indication of "provenance". Much controversy has however long been associated with **eugenics** -- exemplified by the case of the Nazi **Lebensborn** program. In psychosocial terms, traces of such selectivity and certification are evident in the cultivation of excellence and quality in particular centres -- elite schools, finishing schools, schools for the gifted, and potentially including think tanks. In the light of the crises of society, it is however questionable whether the "memetic improvement" in such contexts addresses the global leadership challenges of psychosocial infertility, as might be claimed by those privileged thereby (*Emergence of a Global Misleadership Council: misleading as vital to governance of the future?* 2007).
- **Questionable genital improvement:** The fundamental psychological significance of genitalia with respect to self-esteem and interpersonal relations, together with the misleading focus on performance with regard to sexual fertility, has resulted in a preoccupation with **genital modification / mutilation** and **genital reconstructive surgery**. These processes merit interpretation as metaphors framing the interplay in practice between proposals (projects), targets and "scoring". Such reinterpretation recalls concerns with exploitation of military metaphors (*Enhancing Sustainable Development Strategies through Avoidance of Military Metaphors*, 1998; *"Tank-thoughts" from "Think-tanks": metaphors constraining development of global governance*, 2003). As noted above, there is a degree of equivalence to the targeting significance of rockets, missiles and other weaponry and that of the penis (*The Coalition of the Willy: musings on the global challenge of penile servitude*, 2004). Curiously a corresponding equivalence is to be found between female genitalia and the focusing capacity of receptive technology, such as **dish antenna** and similar arrays. Such correspondences lend themselves to speculative exploration (*Entering Alternative Realities -- Astronautics vs Noonautics: isomorphism between launching aerospace vehicles and launching vehicles of awareness*, 2002). Investment in space rocketry and radio telescopes imply an aspiration to "being great again" -- from a universal perspective, if not from a terrestrial one.

The forms of genital "enhancement" can be clustered as follows:

- Females
 - **Clitoridectomy**, any surgery to reduce or remove tissue from the clitoris
 - **Labiaplasty**, plastic surgery to alter the folds of skin surrounding the vulva
 - **Vaginoplasty**, any type of surgical procedure to the vagina, vulva or related structures
 - **Female genital mutilation**, the ritual removal of some or all of the external female genitalia
- Males
 - **Foreskin restoration**, a process of expanding penile skin to mimic the foreskin
 - **Hypospadias**, surgery to modify the location of the urinary outlet on a phallus
 - **Phalloplasty**, the construction or reconstruction of a penis
 - **Circumcision**, removal of the foreskin from the human penis
- Intersex:
 - **Intersex medical interventions**, performed to modify atypical or ambiguous genitalia
 - **Sex reassignment surgery**, to alter a person's existing sexual characteristics to resemble those of their identified gender
 - **Sex reassignment surgery (female-to-male)**, a variety of procedures for transgender men
 - **Sex reassignment surgery (male-to-female)**, reshaping male genitals into the appearance and function of female genitalia

With respect to facilitating cognitive fertility, these genital interventions merit careful exploration as metaphors. What indeed are the "cognitive genitalia" that serve as vital attractors in the psychosocial reproduction associated with proposals and their targets? However controversial, it would seem that the formulation of attractive projects, and fruitful attention to them, could be explored through such a frame. What questionable efforts are made to modify and/or mutilate them?

The question is whether such metaphors then usefully enable the recognition of cognitive interventions which undermine psychosocial viability through the manner in which they distract from subtler engagement between opposites and complementaries.

Inhibiting constraints and taboos: In addition to factors in the physical environment which undermine fertility globally, of further interest are the psychosocial constraints on sexual behaviour which offer metaphors indicative of constraints inhibiting psychosocial fertility. These might include

- **fertile and infertile periods:** the constraints on fertility implied by the prepubertal period, as well as those of menstruation and menopause. In cognitive terms this may be recognized with expressions such as "prematurity" or the "time is not right". Metaphorically speaking, it could be asked whether global society has yet to mature through puberty to adulthood -- especially in the light of the many comments regarding its childishness, adolescence and immaturity. More subtle is the sense in which global society may well have some equivalent to a menstrual cycle, metaphorically understood -- with all that this might imply in the light of attitudes to that biological condition. A similar question might be raised with respect to menopause -- in the light of any necessary sense of the progressive aging of global civilization. Could global society be understood as having aged prematurely -- perhaps to be explored in the light of the historical obsessions with the eternal nature of empires and the quest for immortality?
- **incestuous reproduction:** much is made of [incest taboos](#) in sexual and familial relations. These have been notably evident with respect to aristocracies and royalty -- as originally featured in the *Almanach de Gotha*. In psychosocial terms metaphorical use is made of "incestuous" to describe questionable relations within [peer groups](#), "old-boy networks", and other self-selected academic and political elites. In particular this may well take the form of citation pacts, whether deliberate or inadvertent (Til Wykes, et al., *The h-index, the citation rating, impact factors and the aspiring researcher, Journal of Mental Health*, 26 Nov 2013). As with the problematic implications for the gene pool of incestuous relations among the aristocracy, citation pacts (whether formal or informal) may be variously tolerated despite their implications for the meme pool. Constraints on the meme pool, and any decline in its diversity, are clearly a factor in reinforcing [groupthink](#) with all that this may imply for psychosocial infertility (*Radical Disaffection Engendered by Elitist Groupthink?* 2016; *Groupthink: the Search for Archaeoraptor as a Metaphoric Tale*, 2002;
- **contraception:** the processes of [birth control](#) are clearly a matter of great controversy, however they may be framed by [family planning](#). Metaphorically they offer a means of framing creativity and psychosocial innovation. In this sense it may be asked whether there is widespread reliance on "conceptual contraceptives" to provide an illusory freedom from responsibility (as in the biological form). Is there a sense in which the development of a conceptual domain -- as a "family of concepts -- may be subject to "family planning" of some kind, whether to ensure the unchecked multiplication of "progeny" or to constrain that process in some way? Further considerations of relevance to conceptual intercourse are suggested by the use by some species of a [mating plug](#) (copulation plug, sperm plug, vaginalplug, sement or sphragis) as argued by Eric Linus Kaplan (*Conceptual Vaginal Plugs, Conceptual Anal Plugs*, 25 September 2016). Is global infertility being ensured by widespread use of conceptual contraceptives of some kind?
- **abortion:** potentially more controversial than contraception, [abortion](#) clearly offers a metaphor which is already applied to psychosocial initiatives. A distinction may then be made between initiatives which are deliberately aborted for whatever reason and those which are better understood as miscarriages or still born (as discussed above). As with contraception, the question to be asked is whether there are processes in play which ensure that fruitful initiatives are systematically aborted -- thereby ensuring global infertility..
- **constraining cultural norms:** a number cultural norms with respect to sexual and familial relations suggest metaphorical relevance to issues of psychosocial infertility:
 - one-child policies: recall criticism of the prevalence of single-factor explanations and strategies in response to global crises
 - large-family policies: recall criticism of the plethora of uncoordinated explanations and strategies in response to global crises
 - interfaith marriage: recalls the controversies with regard to interdisciplinary and inter-sectoral initiatives -- namely extreme reservations from within a particular discipline critical of the methodology of other disciplines with which cross-fertilization might be appropriate
 - same-sex relationships: raising the question as to the manner in which these contribute to psychosocial fertility or exemplify psychosocial infertility,

Inhibition of creativity through incarceration of knowledge

To the extent that any form of global rebirth is recognized as desirable, inhibition of psychosocial fertility is a matter of concern. This inhibition can be recognized in terms of the interplay between the purported quest for "new thinking" (or "lost knowledge"), the "incarceration" of any detected , and the resulting blindspots:

Quest for new thinking: Much is made of the need for "new thinking" with respect to a global civilization in crisis (*Annan calls for 'new thinking' in Mideast process, The Irish Times*, 22 February 2002; [Richard A. Slaughter](#) (Ed.), *New Thinking for a New Millennium: the knowledge base of futures studies*, 1996; Edward de Bono, *New Thinking for the New Millennium*, 2000; William J. Williams, *New Thinking for a New Millennium: the processes and application of abstracting*, 2000). The "failure of imagination" is specifically recognized as exacerbating crises (*Learning from the 9/11 response: groupthink and failure of imagination*, 2005).

How is this concern related to the recognition of subtler forms of insight? What new thinking might be essential to the recognition of new insight capable of enabling a new Renaissance? The question is especially provocative when accompanied by any recognition that "there is nothing new under the Sun". This has the implication that such insight may be "under one's nose" -- did one but have the eyes to see it, as argued separately (*Re-cognition of higher orders of insight through "new thinking"*, 2014).

If new thinking is so highly rated, where has it been specifically identified for 2017, 2016, 2015, etc? Is such identification at the global level to be expected of the UN, of the EU, of OECD, or of other institutions? Is it in reality the case that there are no systematic quests for new insights -- and no efforts for their collation or their presentation for critical appreciation? The issue is highlighted in the case of the problematic response to emergencies (*Enabling Collective Intelligence in Response to Emergencies: illustrated by the case of deep oil spill containment*, 2010).

It can of course be argued that new thinking is very precisely exemplified by patent applications which are necessarily carefully registered in relevant information systems. However, whilst patents are indeed an indication of creativity and innovation in the technical domain, they are far from being an indicator of psychosocial fertility. The massive production of documents could also be considered as such an indicator, but the question would then be what proportion of them are then recognized as "new thinking" and distinguished from what might otherwise be caricatured as "**flocking behaviour**" governed by simple rules of adapting to the initiatives of peers.

Is "**thinking outside the box**" effectively penalized in some manner -- as with provision of negative feedback and critical thinking? Are institutions now characterized by an ever increasing reduction in "listening capacity" -- despite their invasive use of surveillance technology? Worse still, is this disguised by the manner in which active request for feedback is increasingly conflated with public relations ("we listen to you") and the process of harvesting addresses for marketing and security purposes -- neglecting the cybernetic functions of such feedback?

Incarceration of knowledge: Is there indeed a sense in which knowledge -- both new and old -- is increasingly "incarcerated" -- possibly because of fears of its disruptive capacity in relation to the prevailing order? The metaphor of imprisonment is potentially valuable globally, notably as one previously explored for individual organizations by [Gareth Morgan](#) (*Images of Organization*, 1986).

- **censorship:** matters relating to sexuality and its abuse offer the most common examples of censorship and the associated controversies. In a more general sense, this is more readily recognized in censorship of contrary views, notably by religions, ideologies, political parties and disciplines -- whether covertly or openly in support of powerful elites and the values they vigorously claim to uphold. The existence and viability of alternative strategies and explanations is denied -- as exemplified by the widely-cited slogan of Margaret Thatcher: *There Is No Alternative (Considering All the Strategic Options: whilst ignoring alternatives and disclaiming cognitive protectionism*, 2009). Science, for example, can be said to have censored the works of Isaac Newton over centuries -- appropriately held in an inaccessible vault. This has seemingly been for fear that the major portion of his writings (on religion and alchemy) might undermine his iconic writings as supporting the mainstream paradigm of science.
- **secrecy:** much is made of the need for secrecy in the interest of security (typically "national" rather than "global"). Confidentiality is deemed vital to successful competition, irrespective of its potentially problematic implications -- exemplified by the [Volkswagen emissions scandal](#) and the [US diplomatic cables leak](#). This curiously echoes the felt need for secrecy in fruitful interpersonal relations -- despite the ever increasing global invasion of privacy for security and marketing purposes.
- **access:** knowledge held in documents is effectively incarcerated in the documentation centres where they are held (whether or not those works are publicly available for purchase). However many such centres hold copies, access to each centre necessarily remains impossible or problematic for many. When the knowledge is held in information systems, access to appropriate terminals may be equally problematic -- irrespective of issues of access rights (secrecy) and paywalls (Erica Stone, *Why can't regular people access scientific research?* TED, October 2016).
- **paywalls:** however knowledge is held (whether or not it is subject to secrecy or copyright), any access may well be constrained by [paywalls](#). These may be such as to severely inhibit access by many (possibly deliberately so) -- whether to a single document or to sets of interrelated documents.
- **copyright:** the future may recognize as astounding the extent to which use of significant insights is severely constrained by intellectual copyright. Arguably, whilst incarcerated in this way, much knowledge is effectively put up for a form of "ransom" -- strangely suggesting a comparison of copyright holders with kidnappers (if not with sex workers). Hypothetically global civilization in need of a vital fundamental insight could be held to ransom by a particular copyright holder, as separately discussed (*Future Coping Strategies: beyond the constraints of proprietary metaphors*, 1992). The issue is partly recognized in terms of the quest for a "[killer app](#)" -- and the (unconscious) ambitions associated with the quest for a Theory of Everything. It is noteworthy that the majority of academic journals are now controlled by a very limited group of corporations -- possibly to be recognized as operating a [penitentiary system](#) (Fiona Macdonald, *These Five Companies Control More Than Half of Academic Publishing*, *Science Alert*, 12 June 2015).
- **sacred knowledge:** scriptures and the secrets of indigenous cultures (and of secret societies) offer another sense in which knowledge purportedly vital to collective renewal may be incarcerated. Various held to be sacred, especially in the light of the special insight required for its comprehension and fruitful interpretation, these too are thereby rendered inaccessible to most. Efforts to reveal such insights, or to interpret them otherwise, may result in the severest forms of sanction
- **embodiment of insight in art:** whilst art is indeed an instance and exemplification of creativity, the subtle insights it purportedly embodies are subject to the manipulations of what has been contested as a dictatorship of taste and fashion, exemplified by the extraordinary valuations placed on it, and the constraints on access to it -- distorted by questionable overvaluation of originals in contrast to copies
- **complexification and obfuscation:** vital knowledge may well be presented in complex forms -- equations, symbols, jargon,

legalese, and the like -- such as to render it incomprehensible and inaccessible (in part or as a whole) to most (Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, 2010). This may be done deliberately even when transparency is required by law. Obvious examples include the unreadable small print on pharmaceutical products and processed food packages. Other examples are offered by vital multilateral treaties articulated in hundreds of articles on thousands of pages. More subtle, but equally obvious, is the imposition on the unwary and the unskilled of complex banking and fiscal procedures via online systems (with which many may be unfamiliar, even if they have such access).

- **misleading oversimplification:** strangely complementary to incarceration through obfuscation is the use of oversimplification to render problematic the comprehension of insights they imply. This is most evident in the ambiguous use of sound bites, images and tweets.
- **obsolescence of requisite technology:** It has long been recognized that information held on certain hardware media becomes inaccessible when the required technology becomes obsolete -- whether intentionally or inadvertently -- often with limited possibilities to transfer that information to current media. Knowledge can then be understood as evanescent -- incarcerated in a form of time capsule in process of dissolution. The process is evident in new ways with the increasing dependence on databases based on software which is subject to relatively frequent upgrades with little consideration of backwards compatibility. Understood otherwise, the knowledge is locked into outdated media of the past.
- **encryption:** much is made of the vital need for encryption to protect secrecy vital to security. The quest for unbreakable encryption is curiously matched by the quest for quantum technology to penetrate any such encoding -- in the interests of security. The intention is then to contain vital knowledge in an impenetrable container -- whilst seeking technology to penetrate all impenetrable containers. These complementary quests bear a strange resemblance to the quest of alchemists for the ultimate container for *alkahest* -- the universal solvent which can dissolve anything, including its container.

Use of the incarceration metaphor invites systematic exploration of processes of imprisonment and prison reform as they apply to knowledge and creativity. Examples might include:

- "visiting rights" in relation to knowledge -- possibly framing the nature of "conjugal visitation rights" as they might apply to fruitful creativity?
- registration of "prison visitors", now paralleled by systematic registration of all online search requests, as has been the case with library book requests.
- "prison culture" and its exacerbation of violence between imprisoned sets of insights, including "molestation" of the weak by the strong
- "prison guards", for which the parallel of "gatekeepers" has long been recognized
- "radicalization" as a process of concern in undermining "rehabilitation" of knowledge
- "overcrowding" as is evident in the case of libraries challenged by limited shelf-space and lack of resources to extend it
- "death row" as a particular condition in which knowledge is held prior to being "shredded", as is the practice with archives
- "recidivism" as a consequence of abusive (re)exploitation of knowledge when otherwise unconstrained
- "occupational therapy" understood as a need to keep the imprisoned occupied

Such incarceration effectively inhibits cross-fertilization, except under questionably pre-defined circumstances. This is strangely reminiscent of the legendary "lady in the tower" -- locked there awaiting a (princely) hero capable of skillfully bypassing such ivory tower constraints.

Cognitive blindspots: Given the manner in which "new thinking" is systematically avoided by selective framing of any such quest, and the manner in which knowledge is now "incarcerated", there is an obvious case for recognizing that this may engender blindspots inhibiting vital psychosocial creativity. What efforts are made to recognize cognitive blindspots and biases in global risk analysis, as discussed by Eliezer Yudkowsky (*Cognitive biases potentially affecting judgment of global risks*, In: Nick Bostrom and Milan Cirkovic, eds, *Global Catastrophic Risks*, OUP, 2008)?

The study by Daniel Goleman (*Focus: the hidden driver of excellence*, 2013) includes a whole chapter on "system blindness" explained as follows:

Through human history, systems awareness -- detecting and mapping the patterns and order that lie hidden within the chaos of the natural world -- has been propelled by... urgent survival imperatives for native peoples to understand their local ecosystem... Here's the catch. We are prepared by our biology to eat and sleep, mature and nurture, fight-or-flee, and exhibit all the other built-in survival responses in the human repertoire. But... there are no neural systems dedicated to understanding the larger systems within which this occurs.

Systems are, at first glance invisible to our brain -- we have no direct perception of the multitude of systems that dictate the realities of our lives. We understand them indirectly through mental models... and take action based on those models... We seem curiously unable to perceive in a way that leads us to prevent the adverse consequences of human systems, such as those for industry or commerce...

One of the worst results of system blindness occurs when leaders implement a strategy to solve a problem -- but ignore the pertinent system dynamics... The problem gets compounded by what's called the "illusion of explanatory depth", where we feel confidence in our understanding of a complex system, but in reality have just a superficial knowledge. (p. 137)

Under conditions of such "blindness", psychosocial infertility is effectively characterized by what has been termed "subunderstanding" by Magoroh Maruyama (*Polyocular Vision or Subunderstanding*, *Organization Studies*, 25, 2004, 3, pp. 467-480).

The impaired psychosocial engagement with surprise, and the premature exclusion of the improbable, is variously discussed by:

- Nassim Nicholas Taleb: *The Black Swan: the impact of the highly improbable* (2007)
- Karen A. Cerulo: *Never Saw It Coming: cultural challenges to envisioning the worst* (2006)
- Joshua Cooper Ramo: *The Age of the Unthinkable: why the New World Disorder constantly surprises us and what we can do about it* (2009)

As indicated by concerns with [confirmation bias](#), in believing that they know what they need to know, and pretending that they work at the leading edge, institutions become increasingly resistant to what they might otherwise know -- and increasingly vulnerable to surprises from that source. As discussed separately (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008), the point has been ironically highlighted by a much-cited "poem" by Donald Rumsfeld (*The Unknown*) -- presented during a US Department of Defense news briefing on 12 February 2002. The insight has been most recently used in the analysis by Nathan Freier (*Known Unknowns: Unconventional 'Strategic Shocks' in Defense Strategy Development*. Strategic Studies Institute, U.S. Army War College, November 2008).

The Unknown

As we know,
There are known knowns.
There are things we know we know.
We also know
There are known unknowns.
That is to say
We know there are some things
We do not know.
But there are also unknown unknowns,
The ones we don't know
We don't know.

Given the disastrous consequences of such insights in relation to the intervention by a Christian coalition in Iraq, they suggest the ironic possibility of their interpretation in terms of biblical "knowing", carnally understood (*Knowing... in the biblical sense*, *The King's English*, 24 January 2011; *Knowing in the Biblical Sense*, *Leithart*, 8 October 2014). The capacity of institutions to "know" then merits consideration in such terms (*Institutional "rape" as systemic equivalent to individual rape?* 2011).

Global sterility of self-referential creativity?

Self-referential constraints: The argument helps to raise the question as to the degree to which what is widely acclaimed as fertile creativity is vulnerable to a self-referential constraint -- rendering it potentially infertile in psychosocial terms, especially from a collective perspective and in the longer term. Especially recognized in this respect are:

- **Egotism:** Many acclaimed as highly creative may be subject to criticism in terms of [egotism](#). Conflicts between those in creative environments are readily characterized in such terms -- whether or not this undermines the uptake of their insights. This evaluation may be provoked by the competitive quest for recognition.
- **Arrogance:** As with egotism, the creative may well be characterized as arrogant by others -- whether or not this is justified. It may alienate many who would otherwise be attracted to their insights.

Other cognitive "sins" recognized by various traditions also merit consideration

These processes, and the responses they evoke, raise the question as to whether the inequality of perspective engendered by creativity necessarily evokes such recognition -- again, whether justified or not. Assertion of anything in contrast with the norm must necessarily invite such appreciation by some (as with this argument). Striking examples are offered by:

- appreciation of the arts, whether painting, poetry, culinary, wine, or otherwise, potentially characterized by levels of qualitative expertise in each case. The artificiality of such appreciation has been noted with respect to painting and the manipulation of values in the "art market"
- natural science disciplines, especially mathematics and physics, most evident in the careful ranking of citations and [impact](#)
- sporting disciplines, including the martial arts, with their various rankings
- game-playing communities, especially in an online context
- military disciplines and the triumphant celebration of conquest and heroism
- religions, especially when held to have been especially inspired by deity through revelation
- ideologies

Especially interesting is the condition in which the creativity is a feature of a self-selected group, cultivating a distinctive fertility with an unself-critical degree of pride. Potentially this could necessarily apply to the "cultural creatives", the "progressives" and those framing themselves on any "leading edge".

Assumption of linearity: In each case the further creative development of the discipline (if admissible) is readily framed as a linear evolution over time. So framed that linearity reinforces an implicit constraint on the legitimacy of any development upheld as progressive.

This is typically indicated by censoring those who "step out of line" or propose "alternatives" (ean de Climont, *The Worldwide List of Alternative Theories and Critics*, 2016). With respect to the latter, it is extremely ironic to note reviews of this listing by those represented there -- vigorously protesting that they are "mainstream" and not "alternative" as indicated

In cybernetic terms, positive and negative feedback processes constrain development to the traditional "line" and the requirement to be "true to form". Paradigm shifts are held to be problematically disruptive -- readily framed as heresies potentially justifying the most extreme responses. Development is then strangely self-constraining -- as recognized by critics of "mainstream" thinking and the extent to which it is characterized by self-appreciation. This recalls the rules identified with respect to swarm intelligence and flocking behaviour.

Circular and spiral alternatives: Rather than considering such development as "linear" -- the "missionary position" of development -- it is potentially more fruitful to understand the self-constraining process of that development as actually following a curved or **circular pathway** (Charles Handy, *The Second Curve: thoughts on reinventing society*, 2016). The phenomenon has long been described in anecdotal form in terms of those lost in a desert responding to feedback which leads them (unknowingly) back to their point of departure. They travel in circles -- recognized otherwise in terms of the myth of **eternal return**. Whether circular or not, the sense in which linear progress is "bent" is usefully seen as a consequence of **confirmation bias**.

Even more useful is the sense in which development within a domain takes **spiral form** -- encompassing that circular movement but embodying greater insight:

- 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).
- Don Edward Beck et al.: *Spiral Dynamics in Action: humanity's master code*, 2018; *Spiral Dynamics: mastering values, leadership, and change*, 1996
- Triple Helix: *The Triple Helix concept; Triple Helix Association*
- *Psychosocial Learnings from the Spiral Form of Hurricanes* (2017)

"Holes": Any such sense of spiral development merits consideration in terms of the extensive study and speculation regarding information processes in relation to cosmological "holes", whether **black holes** or **white holes** (Peter Russell, *The White Hole in Time: our future evolution and the meaning of now*, 1993).

If a spiralling domain of creative development indeed takes similar form, this offers a means of reframing any related "arrogance" experienced at a distance by others in the psychosocial universe. There is then a curious resemblance between the mystery of arrogance and gravitational effects, as separately discussed (*Arrogance as an analogue to gravity -- equally fundamental and mysterious*, 2015). **Gravity models** are already in use to analyze catchments areas for marketing and other purposes. These could be extended to encompass uptake of creative insight.

Potentially more intriguing with respect to any such psychosocial understanding of gravity is the much-cited succinct articulation of general relativity by **John Wheeler**: *Spacetime tells matter how to move; matter tells spacetime how to curve*.

Whilst black holes are readily considered a distant abstraction in the universe as physically understood, of more relevance to this argument are the "black holes" in the psychosocial system (*Cognitive and experiential black holes*, 2014; *Cognitive mystery of holes, lacunae and incompleteness*, 2015; *The Black Hole metaphor and the American Way of Life*, 2003). Most notably these include the **financial "black holes"** of debt (especially national and global) and those of psychological depression. The spiral form of the black holes of the universe implies the existence of a complementary spiral emerging in some other space. Psychosocial equivalents are discussed separately (with animations) with respect to the **Triple Helix model of innovation** and related strategic models (*Framing Cyclic Revolutionary Emergence of Opposing Symbols of Identity*, 2017; *Marrying Strategic White Holes with Problematic Black Holes*, 2015).

Binary thinking and bipolarity: Such paired forms of spiral vortices can be usefully compared with the experience of the extremes of **bipolar disorder** and its depressive ("negative") and manic ("positive") modalities -- into either of which one may be cognitively drawn (whether individually or collectively). The afore-mentioned "fading sense of hope that humanity has today" could be interpreted in terms of the first (as with the widespread doom-mongering), whilst the hope-mongering of political discourse and progressives could be interpreted in terms of the second (*Credibility Crunch engendered by Hope-mongering*, 2008). Binary thinking has its implications for global decision-making (*Destabilizing Multipolar Society through Binary Decision-making*, 2016).

As exemplifications of binary framing, the question is raised as to whether the pattern of circling around the common axis of the spirals constitutes an existential form of self-referential sterility which could potentially be transcended through other non-binary experiential geometry. This possibility has been explored separately (*Cognitive Osmosis in a Knowledge-based Civilization : interface challenge of inside-outside, insight-outsight, information-outformation*, 2017; *Embodying Strategic Self-reference in a World Futures Conference: transcending the wicked problem engendered by projecting negativity elsewhere*, 2015). Widespread use of psychotropic drugs may well be an unconscious quest for such transcendence.

Engendering "re-cognition" for psychosocial transformation

Re-cognition of "global" civilization: The emphasis of this argument on infertility raises the question as to what is to be recognized as fertility and how indeed it is to be "re-cognized", by whom and to what end. The biological understanding offers clarity in that progeny are engendered. What is to be understood as engendered in the psychosocial case -- as implied by the "flowering of civilization", as previously mentioned?

The argument has also stressed the probability of sterility in a global sense, however this is itself to be "re-cognized" -- if only until the "last child". Hence the earlier reference to "deflowering" (*Flowering of Civilization -- Deflowering of Culture*, 2014). It has set aside the probability of forms of fertility at the community or individual level -- in which many readily continue to place their hope -- irrespective

of any collapse of civilization globally.

Collective intelligence and collective fertility: The argument can be developed further through the possibility that psychosocial fertility may come to be recognized quite otherwise. It is the comprehension of "otherwise" which might then be the basis for sustainable renewal of global civilization. Curiously that fertility might also result from transcendence of conventional binary distinctions between individual and global, and between fertile and sterile, for example.

The nature of individual identity has long been a matter of debate and self-reflection, therefore calling into question any sense of individual fertility beyond its biological sense. This is reinforced by the mysterious nature of creativity, despite extensive studies -- perhaps necessarily inconclusive (Arthur Koestler, *The Act of Creation*, 1964; Daniel Dervin, *Creativity and Culture: a psychoanalytic study of the creative process in the arts, sciences, and culture*, 1990). Similar questions are raised by **collective creativity**, given the mysterious nature of collective identity and **collective intelligence**. What indeed might be understood as the identity of global civilization and how might its intelligence be recognized with respect to its capacity for self-renewal?

Especially intriguing is that typical reference to "global" obscures its integrative characteristics through the overriding emphasis on its planetary dimensions, as discussed separately (*Future Generation through Global Conversation: in quest of collective well-being through conversation in the present moment*, 1997). It is the use of "global" in mathematics and physics that clarifies the complex relation with "local" to a richer degree -- especially given the subtle understanding of "**non-locality**". Such subtlety is also recognized through some philosophies and the arguments of various spiritual disciplines.

Challenging the individual-global distinction: There is therefore the possibility that global fertility may well be sustained through calling into question the conventional relationship between individuality and globality -- together with the cognitive experiences which reinforce them and are currently in process of engendering sterility. Arguably what is perceived as the tragically disastrous collapse of civilizations disguises a process of renewal through which unproductive rigid distinctions are called into question. What is upheld as "fertility" may well be as much an illusion as what is deprecated as "sterility". The cyclic significance of "**fallow**" is readily forgotten. A civilizational analogue to **priapism** -- being permanently great again -- might be equally unfruitful, if not ridiculous.

This argument frames the need to explore otherwise the cognitive interplay between individuality ("oneself") and globality ("others") -- in a manner which may indeed be reminiscent of sexual intercourse, and the instinctual quest of the sperm for the ovum. Various metaphors could enable the cognitive embodiment of which fruitful biological fertility is the archetype (*Psychosocial Implication of Without Within: enjoying going solar for oneself*, 2013; *Defining the objective & Refining the subjective ?! Explaining reality & Embodying realization*, 2011; *Embodiment of Identity in Conscious Creativity*, 2011; *Engendering Invagination and Gastrulation of Globalization: reconstructive insights from the sciences and the humanities*, 2010).

Oneself vs. Otherness? With recourse to a necessarily misleading binary framework (to be called into question), some dimensions can be articulated in terms of "re-cognition":

- of oneself, by oneself: possibly framed as "reinventing oneself" in one's own eyes, but especially the sense of knowing that one does not know, notably framed as "**knowing less and less about more and more**" in contrast with "**knowing more and more about less and less**"
- of oneself, by others: especially the interplay between perceived appreciation ("likes") and perceived arrogance ("dislikes"), however misinformed such assessments may be held to be
- of others, by oneself: especially in the light of probable misunderstanding, prejudice, cognitive bias, and the like
- of others, by others: especially in the light of the tragic conflicts between worldviews, as noted separately (*Guidelines for Critical Dialogue between Worldviews*, 2006).

Tabular schematic of interplay between oneself and others			
		Appreciation of	
		Oneself	Others
Appreciation by	Oneself	by oneself, of oneself	by oneself, of others
	Others	by others, of oneself	by others, of others

This tabular presentation recalls the fourfold **AQAL** articulation of **integral theory**, and is usefully illustrated by a *Map of Principles* (*Organization 5.0*). It could be portrayed otherwise in tetrahedral form, for example, or as a spherical tetrahedron. Given the dynamics of transformation and metamorphosis, the possibility of representation in 4D also merits consideration.

Reimagining the "pantheons" of global order: The extent to which constructs such as global organizations and nation states "exist" can be variously called into question, as separately argued (*Quantum consciousness implications of fundamental symbol patterns*, 2017; *On being "walking wave functions" in terms of quantum consciousness?*, 2017). This is also the case with regard to the problems with which they claim to be preoccupied, the strategies they deploy, and the values they uphold in doing so. Such a radical challenge is a feature of arguments regarding the **psychosocial construction of reality**.

The challenges to conventional understandings of identity are reinforced by emerging insights of quantum reality and have been fruitfully articulated by Alexander Wendt (*Quantum Mind and Social Science: unifying physical and social ontology*, 2015; [video](#); [interview](#)). He argues that quantum consciousness theory is speculative, but compared to the alternative its simplicity is hard to beat (p. 292). He concludes with a bold claim: "whatever their current force as explanatory virtues, the coherence, breadth, and simplicity of the quantum hypothesis make it *too elegant not to be true*". (p. 293).

As one of the currently most eminent of scholars in international relations theory and its implications for security, he argues provocatively that conventional understanding of the existence of nation states is questionable, notably from the hypothetical perspective

of extraterrestrials::

In contrast, social structures are mind-dependent, and so no as yet un-invented technology will enable ETs to see them. Indeed, even if ETs could scan our brains they would not see them, since social structures are not "in" our brains either, but in our minds. This is not to say that, through careful study of our behavior and perhaps extrapolation from their own experience, ETs could not infer the presence of states. But that would mean coming to see them as we do, by learning to read our minds. Short of that, the ETs would have to report back home that while Earth was teeming with life, perhaps even intelligent life, nowhere were there any states. (pp. 24-25)

The array of such entities which feature so strikingly in daily life and public discourse then merit exploration as exercises of the collective imagination. As such they bear a degree of resemblance to the pantheons of some religions. Their reality can also be compared with the angelic and demonic hierarchies which are a feature of other religions, as argued separately (*Engaging with Hyperreality through Demonique and Angelique? Mnemonic clues to global governance from mathematical theology and hyperbolic tessellation*, 2016).

Cognitive exposure and engagement with "entities" which "exist" so subtly then suggests that the imagined globality with which they are associated involves both a degree of projection and of cognitive embodiment. The challenging nature of such "existence" is strikingly apparent in the case of the "international community" to which so many appeals are now made and which is considered a key to global governance (*International Community as God or Sorcerer's Apprentice?* 2015). Any global "order" implied as fundamental -- even a New World Order -- may then be called into question by arguments similar to those applied to mathematics (George Lakoff and Rafael Nunez, *Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2000).

This would then suggest that the many calls for an imaginative approach to the future are effectively an invitation to reimagine such global arrays of entities and the process by which they are engendered. A key report to the Club of Rome (*2052: a Global Forecast*, 2012) might then be reimaged in this way (*Engendering 2052 through Re-imagining the Present*, 2012). Should "casting forward" be challenged as the sterile antithesis of the perspective of enactivism offered by Francisco Varela (*Laying Down a Path in Walking: essays on enactive cognition*, 1997) ?

Crisis of global confidence: infidelity engendered by infertility: There is a curious relation between recognition of infertility and potential sterility which merits consideration in that both may engender forms of "infidelity" and "unfaithfulness". This is especially obvious in the biological case where overriding importance may be attached to engendering progeny. In the psychosocial case, infidelity may manifest as a consequence of analogous dissatisfaction with outcome -- typically evident in community breakdown and in schismatic tendencies at the root of so many current conflicts.

Underlying any loss of faith and hope is the subtle nature of breach of confidence and trust which has proved ever more problematic in recent decades. There is considerable irony to the increasing investment in "intelligence" by the security services -- purportedly to increase security -- through processes which can readily be understood as undermining collective confidence. This suggests the need for other understandings of "collective intelligence" (*Implication of Indwelling Intelligence in Global Confidence-building: sustaining the construction and dynamic of psychosocial reality through questioning*, 2012; *Playing the Great Game with Intelligence: Authority versus the People*, 2013).

If both infertility and infidelity herald some form of global collapse, it is however possible that this will ultimately be a fruitful response to a widespread sense of complacency. This might then herald the emergence of new forms of insight (*Pricking the Bubble of Global Complacent Complicity: hyperdimensional insights from the physics of bubble blowing, bursting and collapse?* 2017). This can be speculatively explored as the design of a global "confidelity container" (*Embodiment of Identity in Conscious Creativity*, 2014).

The quest for any new form could then be usefully informed by the complementarity between an epistemic bubble and an echo chamber, as mentioned above (C Thi Nguyen, *Escape the echo chamber*, Aeon, April 2018). As indicated there: *Where an epistemic bubble merely omits contrary views, an echo chamber brings its members to actively distrust outsiders*. This insight followed from an earlier study (Kathleen Hall Jamieson and Frank Cappella, *Echo Chamber: Rush Limbaugh and the Conservative Media Establishment*, 2010). Given wider concerns with epistemic closure, such a container merits reflection in terms of the issues raised above regarding the incarceration of knowledge. Intriguingly the recognition of a bubble implies an external perspective whereas that of the chamber is from within -- distinctions which could be called into question in forms of higher dimension than that implied by a spherical bubble or an echo chamber.

The question is how a filter bubble, especially a global filter bubble, could then be understood as finally collapsing -- and what then of its function as an echo chamber for global discourse? Both raise issues of closure which could be called into question by a higher dimensional framework. Specifically it could then be asked how a Klein bottle, as a self-reflexive information container, is to be understood as collapsing -- as a prelude to some form of renewal. How might a 4D bubble of complacent complicity be "pricked"? Such questions are of relevance to proprioceptive dialogue, as separately discussed (*To proprioceive or not to proprioceive -- is that the question?* 2017).

Ineffectual dialogue understood as Ineffectual intercourse

It can be readily asserted that the capacity for effective global dialogue of relevance to any remedial response to global challenges is now highly questionable. Examples of relevance include conflictual conditions with respect to the Middle East, North Korea, Russia, China, and many situations more specific conflicts within and between countries. The challenge to dialogue is also evident in the relations between male and female, recently highlighted by incidences of sexual abuse.

Claims to the contrary are of course a feature of the times, notably framed in terms of appeals for dialogue as a means of resolving such conflicts. Ironically, however, there is little consensus on what constitutes meaningful dialogue. Curiously the challenge extends

increasingly to interpersonal relations -- exemplified in a further irony by ambiguity between use of "dialogue" and "intercourse", as discussed separately ("*Human Intercourse*": "*Intercourse with Nature*" and "*Intercourse with the Other*", 2007; *Beyond Harassment of Reality and Grasping Future Possibilities: learnings from sexual harassment as a metaphor*, 1996).

The issue can be succinctly framed by questions such as the following, many raised elsewhere (*Documents relating to Dialogue and Transformative Conferencing*):

- What constitutes fruitful global dialogue?
- Where is fruitful dialogue exemplified and cultivated?
- Why is high quality dialogue not recognized, cultivated and rated -- in contrast with the culinary arts, their appreciation, and the assumption that these enable fruitful intercourse?
- Can "soulless" dialogue be compared with "soulless" intercourse as an indication of infertility?
- How is the outcome of fruitful dialogue to be recognized -- beyond the feel-good effect typically analogous to many forms of sexual intercourse?
- As with sexual intercourse, do explicit claims for its high quality typically disguise any perceived inadequacy in its quality?
- What is prematurely designed "off the table" in any dialogue, and how is that to be recognized?

There is a curiously poignant equivalence to the effort of couples to "keep on trying" (in the hope of producing a baby) with that of global dialogue initiatives. These are also optimistically framed in terms of the need to "keep on trying" -- in the hope of achieving global renewal.

The tragedy of infertility for many is however no indication of global infertility -- as indicated by current global fecundity and the ever increasing global population. This obscures the greater tragedy of progressive global psychosocial infertility. In that sense global fecundity is increasingly incapable of reversing the trend to global sterility -- namely the incapacity for sustainable renewal of civilization, globally understood.

"Getting it up"? "Being great again"? "Talking it up"? "Premature ejaculation"?

(We are Our Own Metaphor !)

Trump's (Premature) Attack on Syria (The Globalist, 16 April 2018)

Trump's 'Mission Accomplished' tweet, and the premature declaration that haunted George W. Bush (The Washington Post, 15 April 2018)

Trump fails to see risks of premature exit in Syria (The Journal Gazette, 3 April 2018)

Trump's Bombing of Syria Spells the Premature End of Détente (The Nation, 7 April 2017)

President Trump talks up dollar in Davos (Reuters, 25 January 2018)

Talking It Up or Talking It Down?

(Hajo G. Boomgaarden, How National Democracy Conditions the Relationship Between Talking About and Expressing Democratic Satisfaction with European Politics, Oxford University Press, 2016)

Green Economy: Everyone's talking it up

(Nina Winham, From Business in Vancouver, 16-22 November 2010)

Come On ! : Capitalism, Short-termism, Population and the Destruction of the Planet (Report to the Club of Rome, 2018)

The Limits to Growth

(Report to the Club of Rome, 1972)

Around the globe, they are trying to master nuclear fusion...but none can hold it steady for as long as the team in Anhui.

(Will China beat the world to nuclear fusion and clean energy? BBC News, 18 April 2018)

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